

Letters

Website: bmj.com
Email: letters@bmj.com

Smoking research of the 1950s could be celebrated in UK and US stamps

EDITOR—*Tobacco Control* reproduced anti-tobacco postage stamps on the covers of its first six issues.¹⁻⁴ By 1992, 43 countries had issued anti-tobacco stamps,¹ and Poland issued an antismoking postcard as far back as 1971.

Sixty five countries have now issued anti-tobacco stamps or other postal items. Two of the recent issues are from Libya in 1995 and Romania in 1999 (figures). By contrast, 125 countries have issued postage stamps that honour tobacco.⁵

Robert Johnson, a jazz guitarist, was honoured in September 1994 on a stamp unveiled by the US Postal Service at the Mississippi Delta Blues Festival in Greenville, Mississippi. Interestingly, the cigarette in the photograph on which the stamp was based is deleted because the Citizens Stamp Advisory Committee did not want the stamps to be perceived as promoting cigarettes.⁶ Similarly, Jackson Pollock was shown without a cigarette in January 1999 in the “celebrate the century” issue for the 1940s, although the photograph that inspired the design originally appeared in the August 1949 edition of *Life* magazine and showed a cigarette dangling from the artist’s lips.



Libyan anti-tobacco stamp, 1995

stamp they could commemorate the landmark reports on smoking and health published by the Royal College of Physicians of London (1962) and the US surgeon general (1964). It is high time that the United Kingdom and the United States join the 65 nations of the world that have already issued anti-smoking stamps or other postal items.

James H Lutschg retired doctor
4022 North Bluebonnet Road,
Baton Rouge, LA 70809, USA

- 1 Lutschg JH. Anti-tobacco postage stamps. *Tobacco Control* 1992;1:5-6.
- 2 Greenwald RA. The postage stamp as messenger. *Tobacco Control* 1992;1:87-8.
- 3 Tierney JI. A final word on postage stamps. *Tobacco Control* 1993;2:57.
- 4 Davis RM. Tobacco Control: reflections on the first seven years. *Tobacco Control* 1999;8:1-9.
- 5 Lutschg JH. More on postage stamps. *Tobacco Control* 1992;2:336.
- 6 Lutschg JH. Stamping out cigarettes. *Tobacco Control* 1993;3:304-5.

Smoking and dementia in male British doctors

Authors did not, strictly speaking, compare smokers with non-smokers

EDITOR—Doll et al’s finding that “persistent smoking does not substantially reduce the age specific onset rate of Alzheimer’s disease or of dementia in general” is not surprising.¹ The authors didn’t compare smokers with non-smokers.

By combining lifelong non-smokers and ex-smokers in the non-continuing group they effectively stopped comparing smokers with non-smokers. To complicate the issue further they then note, “As questionnaires were sent out only every six to 12 years, the mean time before death that the relevant smoking habits had been recorded was not 10 but 15 years.” In the end this study compares a group including non-smokers and ex-smokers who may have started smoking in the previous 15 years with a group of smokers who may have stopped in the previous 15 years.

Has the *BMJ* fallen prey to the concerted and unrelenting efforts of health organisations determined to dictate an antismoking

social policy rather than provide the honest and unbiased facts that people need to make informed personal choices? Or is the *BMJ* part of the team?

Eric Boyd facilities manager
University of Waterloo, Waterloo, Ontario, Canada
N2L 3G1
eboyd@library.uwaterloo.ca

Competing interests: None declared.

- 1 Doll R, Peto R, Boreham J, Sutherland I. Smoking and dementia in male British doctors: prospective study. *BMJ* 2000;320:1097-102. (22 April).

Paper shows politically engaged research on smoking

EDITOR—Chalmers and Altman¹ analysed the work of Janerich et al regarding passive smoking and lung cancer.² Janerich et al focused on the effects on children, presenting a hypothesis that is contradicted by their own results (according to Chalmers and Altman), and failed to comment on the inverse relation they found between social exposure to passive smoking and lung cancer. This is just an example of the kind of bias likely when dealing with cigarette smoking in the current political environment.

Advice to authors

We prefer to receive all responses electronically, sent either directly to our website or to the editorial office as email or on a disk. Processing your letter will be delayed unless it arrives in an electronic form.

We are now posting all direct submissions to our website within 24 hours of receipt and our intention is to post all other electronic submissions there as well. All responses will be eligible for publication in the paper journal.

Responses should be under 400 words and relate to articles published in the preceding month. They should include ≤ 5 references, in the Vancouver style, including one to the *BMJ* article to which they relate. We welcome illustrations.

Please supply each author’s current appointment and full address, and a phone or fax number or email address for the corresponding author. We ask authors to declare any competing interest. Please send a stamped addressed envelope if you would like to know whether your letter has been accepted or rejected.

Letters will be edited and may be shortened.

bmj.com
letters@bmj.com



Romanian anti-tobacco stamp, 1999

The United Kingdom and the United States continue to be among the countries that have not issued antismoking stamps. Postage stamps are often issued to commemorate the anniversary of an important event. Both countries could now do so to celebrate the seminal research published by British and American investigators in the 1950s on smoking and lung cancer. However, if the postal authorities need more time to decide on a 50th anniversary

Doll et al present another version of a politically engaged analysis.³ While they found that smoking seems to protect against Alzheimer's disease and eventually offers longlasting protection (the ex-smokers showed a decrease in risk similar to that in current smokers), their final comment reorganises the data to affirm the opposite. Although they present their results comparing current smokers with never smokers, ex-smokers with never smokers, and current smokers with ex-smokers, for their final comparison with other studies they create a different category—different from the categories they used in their discussion and different from the comparable studies. Is it prompted by their findings? No, it is not. They found a pattern where current and ex-smokers behave similarly, but they nevertheless aggregated ex-smokers and never smokers. With this trick, the difference they found between all smokers and never smokers was diluted and they could present the politically correct conclusion of no benefit.

Doll et al's results reinforce the evidence for protection against Alzheimer's disease, with a risk rate of 0.83 for continuing smokers and 0.78 for ex-smokers, refining, but fundamentally agreeing with, the results they quote from Herbert et al. The power to assert significance may be discussed, but the exercise in denying the trends they found is a sign of the submission of research to the political agenda.

Joao Calinas-Correia *medical practitioner*
16 Roskear, Camborne, Cornwall TR14 8DN
j_calinas@yahoo.co.uk

Competing interests: None declared.

- 1 Chalmers I, Altman D. *Systematic reviews*. London: BMJ Books, 1995.
- 2 Janerich DT, Thompson WD, Varela LR, Greenwald P, Chorost S, Tucci C, et al. Lung cancer and exposure to tobacco smoke in the household. *N Engl J Med* 1990;323:632-6.
- 3 Doll R, Peto R, Boreham J, Sutherland I. Smoking and dementia in male British doctors: prospective study. *BMJ* 2000;320:1097-102. (22 April)

Authors' reply

EDITOR—Our study found no association between the smoking habits about 15 years earlier and the likelihood of death from dementia (or, for those dying of other causes, the likelihood of dementia being mentioned on the death certificate).

Boyd says that our findings may have been distorted by changes in smoking habits during the long interval between the time when smoking habits were recorded and the deaths of doctors with dementia. We had made this interval long on purpose to ensure that the habits were recorded before the onset of appreciable disease, as illness may make smokers give up the habit, artificially inflating the proportion of recent ex-smokers among those who die with dementia. Few, however, of those who were not current smokers would have taken up the habit, to judge by later information on men of similar age who did not die and who replied to a subsequent questionnaire.

Our study involved a cohort in which only about 15% were lifelong non-smokers

but in which half the smokers had given up the habit several decades ago. As there were fewer lifelong non-smokers than long term ex-smokers, our main assessment of whether persistent smoking affected dementia involved comparing all those who were still current smokers with all those who were not, three quarters of whom were ex-smokers who had given up an average of 34 years before death.

We found a relative risk of 0.96 (or 0.99, for dementia probably or definitely due to Alzheimer's disease), with no significant heterogeneity of risk between smokers, ex-smokers, and non-smokers. In our view, unduly selective emphasis just on the lifelong non-smokers would, in this context, be as inappropriate as unduly selective emphasis on the non-significant excess risk when continuing smokers are compared with long term ex-smokers.

Our overall conclusion that "persistent smoking does not reduce the age specific onset rate of the disease [Alzheimer's disease] or of dementia in general to any substantial extent" but "if anything ... may increase rather than decrease the onset rate" was based not only on the evidence from our own study but on all that available from prospective studies. These other studies included two with relative risks for persistent smoking greater than 1.0 and not just the one such study with a (non-significantly) lower relative risk that Calinas-Correia chose to cite. Our conclusion therefore seems more soundly based than his.

Richard Doll *emeritus professor of medicine*
Richard Peto *professor of medical statistics and epidemiology*
Clinical Trial Service Unit and Epidemiological Studies Unit, Radcliffe Infirmary, Oxford OX2 6HE

Competing interests: None declared.

Nicotine replacement can be obtained on prescription

EDITOR—Moxham in his article on nicotine addiction and a recent report by the Royal College of Physicians draw attention to the need for nicotine replacement therapy to be made generally available on prescription in the UK.^{1 2}

Nicotine replacement is a cost effective treatment^{3 4} that saves lives. It saves money by reducing the estimated £1.5bn burden of smoking related disease currently met by the NHS.² It now transpires that, as a result of a regulatory loophole, a limited number of nicotine replacement products that have been licensed recently but not yet been removed from the list of drugs available for NHS prescription can in fact currently be prescribed. These products include the NiQuitin CQ transdermal patch, the Nicorette Microtab, the Nicorette inhalator, the Nicotinell lozenge, and possibly some others. For the time being, therefore, and until they are removed from the list of medicines for which reimbursable prescriptions can be issued, these products can apparently

be prescribed by general practitioners in the United Kingdom in the same way as any other drug.

John Britton *chair*
Tobacco Advisory Group of the Royal College of Physicians
professor of respiratory medicine
University of Nottingham, City Hospital,
Nottingham NG5 1PB
j.britton@virgin.net

- 1 Moxham J. Nicotine addiction. *BMJ* 2000;320:391-2. (12 February)
- 2 Tobacco Advisory Group, Royal College of Physicians. *Nicotine addiction in Britain*. London: RCP, 2000
- 3 Raw M, McNeill A, West RJ. Smoking cessation guidelines for health care professionals. *Thorax* 1998;53 (suppl 5 part 1):S1-19.
- 4 Parrott S, Godfrey C, Raw M, West R, McNeill A. Guidance for commissioners on the cost-effectiveness of smoking cessation interventions. *Thorax* 1998;53 (suppl 5 part 2):S1-38.

Tumour markers in malignancies

Two isoforms of oestrogen receptor are now known to exist

EDITOR—Lindblom and Liljegren comment about oestrogen receptor in their clinical review of tumour markers in malignancies.¹ They failed, however, to acknowledge that two isoforms of the receptor (ERa and ERb) are now known to exist and to distinguish between the two. This is important as it is now incorrect both scientifically and clinically to talk solely about ER as if it were one entity.

The oestrogen receptor that they referred to is the classical oestrogen receptor or ERa²; as noted in their table, it predicts response to endocrine treatment in the adjuvant setting and correlates with a better prognosis. Not noted in their table is that ERa immunohistochemistry is used as a diagnostic investigation in patients with metastases when there is a primary of unknown origin. Also not noted is that ERa expression does not guarantee response to endocrine treatment, with 30-40% of such tumours failing to respond.³

Oestrogen receptor β , or ERb, is the more recently discovered isoform; ERa and ERb represent two gene products with distinct biological roles and ligand binding specificity.⁴ With reference to the breast the expression of ERb, its role in the normal and malignant breast, the interactions between it and ERa, and its use as a tumour marker are currently being investigated. Recent immunohistochemical study of ERb in breast cancer, however, has shown it to correlate with ERa positivity, low grade, and negative axillary lymph node status—that is, good prognostic factors.⁵ The independent predictive value of ERb has yet to be established.

The presence of a further oestrogen receptor has opened up new avenues of research; these will lead to a clearer understanding of hormonally dependent breast cancer and more precise methods of predicting response to hormonal treatment.

In addition, more effective hormonal treatment based on receptor specificity might be developed.

Carlo Palmieri *CRC clinical research fellow*
c.palmieri@ic.ac.uk

Sam Fishpool *medical student*

R C Coombes *professor of medical oncology*
Cancer Cell Biology Group, Cancer Research
Campaign Laboratories, Imperial College School
of Medicine—Hammersmith Campus, London
W12 0NN

- 1 Lindblom A, Liljegren A. Tumour markers in malignancies. *BMJ* 2000;320:424-7. (12 February)
- 2 Jensen EV, DeSombre ER, Jungblut PW. Estrogen receptors in hormone-responsive tissues and tumours. In: Wissler RW, Dao TL, Wood S, eds. *Endogenous factors influencing host-tumor balance*. Chicago, IL: University of Chicago Press, 1967:15-30.
- 3 Locker GY. Hormonal therapy of breast cancer. *Cancer Treat Rev* 1998;24:221-40.
- 4 Gustafsson JA. Estrogen receptor b—a new dimension in estrogen mechanism of action. *J Endocrinol* 1999;163:379-83.
- 5 Jarvinen TAH, Pelto-Hukko M, Hollo K, Isola J. Estrogen receptor b is coexpressed with ERa and PR and associated with nodal status, grade and proliferation rate in breast cancer. *Am J Pathol* 2000;156:29-35.

CA19.9 is useful in several cancers ...

EDITOR—I was surprised that Lindblom and Liljegren mentioned CA19.9 almost as an aside as being at the experimental stage in ovarian cancer.¹ This marker is associated with other adenocarcinomas, particularly pancreatic cancer; when used in conjunction with knowledge of the patient's clinical state it can be an excellent guide to diagnosis and response to treatment. It has been routinely used in the south west of London for some time, and a survey of PubMed shows that many papers have reported its usefulness in the management of pancreatic cancer.

Another tumour marker, which the authors have omitted altogether, is lactic dehydrogenase; this is one of the most useful indicators of relapse melanoma as well as other malignancies. I am surprised that these omissions escaped the peer review process.

A G Dalglish *professor of oncology*
St George's Hospital Medical School, Division of
Oncology, Department of Cellular and Molecular
Sciences, London SW17 0RE

- 1 Lindblom A, Liljegren A. Tumour markers in malignancies. *BMJ* 2000;320:424-7. (12 February)

... as are monoclonal immunoglobulin and β human chorionic gonadotrophin

EDITOR—Lindblom and Liljegren's review of tumour markers in malignancies is particularly interesting to those interested in the genetic and molecular biological aspects of this subject.¹ Concentration on these topics, however, has resulted in the authors failing to emphasise the importance of the tumour markers that have been in clinical use for many years.

No mention is made of monoclonal immunoglobulin, which is certainly the oldest tumour marker known and is probably the most extensively used. Indeed, the presence of monoclonal immunoglobulin in blood or urine is one of the prerequisites in diagnosing myeloma. Its measurement is also used in staging and prognosis, and changes after treatment are helpful in management.² Thus it is almost the perfect tumour marker in terms of diagnosis,

staging, and management and certainly warrants consideration in such a review.

Scant regard is paid to the use of β human chorionic gonadotrophin and α fetoprotein in the diagnosis, staging, and management of testicular and ovarian germ cell tumours. Lindblom and Liljegren note that the management of testicular cancer has improved considerably, and this is in large part due to the study of these tumour markers. In particular, the successful management of stage 1 non-seminomatous germ cell testicular tumour depends heavily on the presence or absence or changing levels of these tumour markers.³

Finally, β human chorionic gonadotrophin is useful in the management of molar pregnancies or subsequent choriocarcinoma, or both.⁴ Choriocarcinoma as a cause of death now rarely occurs because of the measurement of β human chorionic gonadotrophin after molar pregnancy. Surely this excellent tumour marker warrants at least a mention in such a review.

B M Colls

Canterbury Health, Department of Medicine,
Christchurch Hospital, PB 4710, Christchurch,
New Zealand

- 1 Lindblom A, Liljegren A. Tumour markers in malignancies. *BMJ* 2000;320:424-7. (12 February)
- 2 Durie BGM, Salmon SE. A clinical staging system for multiple myeloma. Correlation of measured myeloma cell mass with presenting clinical features, response to treatment and survival. *Cancer* 1975;36:842-52.
- 3 Sternberg CN. The management of stage 1 testis cancer. *Urol Clin N Am* 1998;25:435-49.
- 4 Bagshawe KD. Risk and prognostic factors in trophoblastic neoplasia. *Cancer* 1976;38:1373-85.

Authors' reply

EDITOR—Palmieri et al emphasise the role of the recently identified oestrogen receptor β . This may indeed become a useful tumour marker in the future. For our review, however, we were asked to include only tumour markers known to be of common clinical use. That is why we did not discuss several new and potentially interesting markers.

Dalglish points out that in many hospitals the marker CA19.9 is commonly used clinically, not just experimentally. The use of many markers varies, and we tried to select those most commonly used worldwide and point them out as being clinically used; that is why we said that CA125 was in common clinical use and CA19.9 was still experimental. The marker lactate dehydrogenase is commonly used in follow up in lymphoma (as well as in other malignancies). This marker was included in the original version of our article, but we eventually excluded it because it is an unspecific marker of cell decomposition (destruction) and does not fit the criteria we were told to use for a tumour marker. Besides, it is used primarily as a prognostic marker, and we removed all prognostic markers on request from the reviewer.

Colls points out the usefulness of the marker β human chorionic gonadotrophin in the management of molar pregnancies and subsequent choriocarcinoma. This marker is definitely of use, but, perhaps erroneously, we omitted it and other markers used in very rare diseases.

Finally, we did not include the commonly used marker monoclonal immunoglobulin in myeloma in our review. This we regret; it fits all the criteria we finally used in selecting the markers to be included.

We emphasise that our article was meant to be a broad overview and to include selected markers used in malignancies. We realise that other doctors find many more markers to be important. We ourselves were strongly influenced in the selection of markers by the reviewer's guidance; this further shows that the subject is not clear cut and that there are almost as many opinions as there are doctors.

Annika Lindblom *clinical geneticist*

Department of Clinical Genetics, Karolinska
Hospital, Stockholm, Sweden
Annika.lindblom@cmm.ki.se

Annelie Liljegren *oncologist*

Department of South Stockholm Oncology,
Huddinge University Hospital, Sweden

HTLV-I is lower in blood donors in West Midlands than South Thames

EDITOR—Tosswill et al have estimated that 22 500 people of Afro-Caribbean origin living in England and Wales are infected with the human T cell leukaemia virus type I (HTLV-I).¹ HTLV-I has been transmitted by blood transfusion,² although it is not included in the routine screening of blood donations in Britain.

To determine the prevalence of HTLV-I among blood donors (an important factor when the cost benefit of introducing a screening test for it is assessed) a study was carried out in the West Midlands between 1988 and 1999. During that period sickle cell screening was performed on plasma samples from all new donors of Afro-Caribbean ethnic origin. These samples were also anonymised and referred to the Central Public Health Laboratory, Colindale, to be tested for antibody to HTLV-I by gelatin particle agglutination (Fujirebio, Japan). Reactive serum samples were confirmed by western blotting.

Of 1749 donors tested, two (0.11%) were confirmed to have antibody to HTLV-I. To estimate the prevalence of HTLV-I in all new donors we referred to a previous West Midlands antenatal survey,³ in which three fifths of the antenatal women infected (three of five positive among 3522 tested) were found to be white. If this was also true of the blood donor population, four new donors in the West Midlands region during 1988-99 would most probably have had antibodies to HTLV-I. There were roughly 20 000 new donors a year in the region during this 11 year period, which suggests that four in 220 000 new donors (roughly one in 55 000) were carrying HTLV-I.

A prevalence of 0.11% is considerably lower than the 0.55% found in a similarly selected group of 1100 Afro-Caribbean blood donors in South Thames region (J Price, personal communication). It is difficult

to explain the lower prevalence in the West Midlands, but three quarters of Afro-Caribbean donors there are aged under 40 and so were probably born in the United Kingdom. They may have a lower seroprevalence of HTLV-I than the Afro-Caribbean population of London owing either to an age effect or their birth in the United Kingdom.

John Kurtz *consultant virologist*

Neil Smith *consultant haematologist*

neil.smith@nbs.nhs.uk

National Blood Service, Birmingham B15 2SG

Steve Harbour *medical laboratory scientific officer*

Central Public Health Laboratory, London

NW9 5HT

1 Tossill JHC, Taylor GP, Tedder RS, Mortimer PP. HTLV-I/II associated disease in England and Wales, 1993-7: retrospective review of serology requests. *BMJ* 2000;320:611-2. (4 March.)

2 Harrison P, Ala F, Milligan D, Skidmore S. Failure to screen may be a false economy. *BMJ* 1996;312:706-7.

3 Nightingale S, Orton D, Ratcliffe D, Skidmore S, Tossill J, Desselberger U. Antenatal survey for the seroprevalence of HTLV-I infections in the West Midlands, England. *Epidemiol Infect* 1993;110:379-87.

Promoting health of looked after children

Monitoring and documentation should be improved

EDITOR—Looked after children are among the most vulnerable in our society, with a higher level of health, mental health, and health promotion needs than others of the same age, as discussed by Polnay and Ward.¹ Local authorities should ensure proper monitoring of their morbidity and developmental progress, which ideally should be documented in the annual medical reports.

In April this year the records of 60 looked after children in the borough where I work were surveyed to find out whether their health needs have been adequately addressed. All of them were under 5 years old when they were placed in care, and the records were selected randomly from a total of around 150 children of that age group who are currently under care. Twenty one of the 60 were placed with one of their biological parents, while the rest were either with their relatives (11) or with other carers (28).

All of them stayed in care for at least a year, and 24 had at least one change of placement in the first year. Of the 21 children who were placed initially with their parents, 12 had a change of carer subsequently.

Thirty nine of the children had their initial medical assessment within three months of placement, but only 22 had a further check within the following 6-12 months. Of these, 15 had a satisfactory increase in growth variables. Nine of these children developed speech and behavioural abnormalities, which were dealt with by referrals within six months of diagnosis.

Twenty eight of the 39 medical reports were completed satisfactorily, with clear documentation of the current health and behavioural concerns. For 24 of these children, however, the full medical and family history could not be elicited from the present carers.

This survey highlights the high incidence of change of placements and the poor access to the medical and family history. The Children Act encourages local authorities to place children with their biological parents, but, unfortunately, the changes of placements were particularly high among these children. We should also study the long term effects of these various placements on the children's cognitive development. The overall physical and mental follow up and the documentation of the records could be improved. All local authorities and healthcare professionals should safeguard and improve the quality of care in these crucial areas.

S Acharyya *specialist registrar, community child health*
Royal Gwent Hospital, Newport NP20 2UB
saugata69@hotmail.com

1 Polnay L, Ward H. Promoting the health of looked after children. *BMJ* 2000;320:661-2. (11 March.)

These children need tailor made care plans

EDITOR—The editorial by Polnay and Ward about looked after children raises important concerns about this most vulnerable group of children.¹ Of course they need tailor made care plans and not an annual physical inspection.

In the trust where I work, the school doctors and nurses were asked to log all contacts with looked after and adopted children over one term, summer 1999. All 11 doctors and 17 nurses reported contacts, with a total of 122 children seen. The nurses saw 74 children—30 (41%) for a proactive healthcare assessment, 26 (35%) for support for their emotional difficulties, and eight (11%) because of learning and developmental problems. The doctors saw 48 children—only three (6%) for proactive care, and the rest for referred problems. Of these 48 children, 31 had emotional difficulties and nine learning difficulties; the remainder had coordination problems, speech delay, encephalitis or enuresis, poor attendance, poor growth, or poor hygiene.

Both staff groups rated the rapport achieved as "excellent" for a third of the children (doctors 16 (33%), nurses 21 (28%)), with the doctors ranking a further 28 (58%) cases as "good rapport" and the nurses 22 (30%). As the nurses were doing more proactive than referral work they were more likely to experience reluctance from the children (six (8%) children).

A wide range of services were contacted for just over half the children. The doctors discussed their contact with social services for 25 (52%) children and the nurses for 31 (42%). The doctors discussed 10 (21%) cases with child psychiatric colleagues, the nurses seven (9%). Children were also discussed or referred to speech, eye, physiotherapy, and hearing clinics and discussed with educational psychologists, welfare officers, or special units.

The doctors planned to follow up 45 (94%) of those seen. The nurses selected 63 (85%) for planned review. Altogether 58 (60%) children in both groups had a planned review for the following school

term. The others would be reviewed later in the school year. We propose to review these contacts in summer 2000 to ascertain how many are still under the care of their school doctors and nurses and how many have been lost to follow up.

These children are undoubtedly a needy group, and it is disgraceful that one still has to argue that the annual review should be replaced with tailor made care plans using school health staff.

Sonya Leff *consultant community paediatrician*
South Downs Health NHS Trust, Lewes, East Sussex BN7 1UJ
sonjak@britishlibrary.net

1 Polnay L, Ward H. Promoting the health of looked after children. *BMJ* 2000;320:661-2. (11 March.)

Teenage pregnancy rates and the age and sex of general practitioners

Record linkage analysis could have been used

EDITOR—Hippisley-Cox et al lament their inability to identify teenagers with repeat pregnancies and, by inference, repeat abortions.¹ The Trent regional hospital admissions database apparently contains all details of hospital admissions for residents in Trent, whether treatment was provided in Trent or not. Does this database contain the NHS number, the only unique identification number that is almost universally held among the population of England and Wales?² If so, record linkage analysis could have been used to identify repeat pregnancies and repeat abortions, especially since Hippisley-Cox et al compared their data with those of the Office for National Statistics, of which the NHS central register is a part. The goal of record linkage is to link quickly and accurately records corresponding to the same person or entity. A record linkage system exists in England that recently included the matching of general practice records with hospital and vital records to prepare a file for analysing referral, prescribing, and outcome measures.³

This study highlights a deficiency in the data collection system for legal abortion in England and Wales. Abortion statistics are compiled from completed abortion notification forms (form HSA4, revised 1991), which have no requirement for a unique personal identification number. Although it has a section for the number of previous legal abortions experienced by each woman, the accuracy of the data depends on the extent of truthful disclosure by women of their past experience of induced abortion and accurate reporting by abortion service providers. The information may not be verifiable from hospital records if a woman has attended different hospitals.

Record linkage analysis showed under-reporting of experience of induced abortion when the study methodology depended on self-reporting.⁴ A mandatory requirement for the NHS number on form HSA4 should

enable identification of repeat abortions for individual women through record linkage analysis, thus facilitating accurate calculation of local, regional and national repeat abortion rates, which currently are unavailable. If this requirement were in place, the shortfall of 21.7% of terminations of pregnancy attributed to the private and charity sectors in this study would have been identified. The data set would have been more complete and the study's strength increased.

The distribution of abortion in a population is important for service planning. To discover the distribution of induced abortions, the incidence of repeat abortion must be known. This is where record linkage analysis comes into its own, although it may not be perfect.⁵

Babatunde A Gbolade *consultant gynaecologist*
St James's University Hospital, Leeds LS9 7TF
b.a.gbolade@leeds.ac.uk

- 1 Hippisley-Cox J, Allen J, Pringle M, Ebdon D, McPhearson M, Churchill D, et al. Association between teenage pregnancy rates and the age and sex of general practitioners: cross sectional survey in Trent 1994-97. *BMJ* 2000;320:842-5. (25 March.)
- 2 Hattersley L. Record linkage of census and routinely collected vital events data in the ONS longitudinal study. In: Alvey W, Jamerson B, eds. *Record linkage techniques—1997: proceedings of an international workshop and exposition*. Washington, DC: National Academy Press, 1999:57-66.
- 3 Gill LE. OX-LINK: The Oxford medical record linkage system. In: Alvey W, Jamerson B, eds. *Record linkage techniques—1997: proceedings of an international workshop and exposition*. Washington, DC: National Academy Press, 1999:15-33.
- 4 Udry JR, Gaughan M, Schwingl PM, van den Berg BJ. A medical record linkage analysis of abortion underreporting. *Fam Plann Perspect* 1996;28:228-31.
- 5 Somers RL. Repeat abortion in Denmark: An analysis based on national record linkage. *Stud Fam Plann* 1977;8:142-7.

Sex and age discrimination in recruitment for general practice is not justified by teenage pregnancy survey

EDITOR—In the “key messages” box of their article on teenage pregnancy rates, Hippisley-Cox et al conclude that general practices with a female and young doctor had significantly lower teenage pregnancy rates and advised those responsible for recruiting staff in primary care to take these conclusions into account.¹ Their arguments are flawed.

There are several methodological problems. Firstly, the authors did not take into account the doctors' inclusion in the family planning list or their possession of family planning certificates and the diploma of the Royal College of Obstetricians and Gynaecologists. Female and young doctors may be more likely to have undergone family planning training and obtained these qualifications. These are key confounding factors as the doctors' skills in providing contraception were under study. Whether the practice ran a shared list system in allocating patients to doctors is also important. Secondly, whereas teenage conceptions are defined as those in girls aged 13-15 in the *Health of the Nation* targets² and in other studies, the authors included all pregnancies in girls aged 19 or under. Thirdly, as a large proportion of teenage pregnancies in this study were in girls aged 17-19 who were likely to be in further or higher education during term time, terminations of pregnancies may have been performed outside Trent

region. Fourthly, the incidence rate ratio for the presence of female doctors was adjusted from 0.84 to 0.94 after taking into account the Townsend score and practice characteristics. However, since a good general education is the most important factor associated with deferring pregnancy,³ the Townsend score alone is unlikely to have fully corrected for this factor. Finally, Hippisley-Cox et al properly acknowledged that causation could not be concluded from a cross sectional survey

Even if the conclusions were valid, the clinical significance for individual practices is minimal. For a practice with five partners and 10 000 patients, there may be about 250 girls aged 13-15. Taking the highest teenage conception rate in the United Kingdom as 16 per 1000,² one may expect to see four teenage pregnancies in a year. Even if it were true that practices with both a female and a young doctor had 75% of the teenage pregnancy rate, one would expect only one teenage pregnancy to be avoided a year. These results fall far short of the stringent statutory requirements to argue that sex is a genuine occupational qualification to justify sex discrimination.⁴

Wai-Ching Leung *senior registrar in public health medicine*
Epidemiology and Public Health, Newcastle General Hospital, NE4 6BE
W.C.Leung@ncl.ac.uk

- 1 Hippisley-Cox J, Allen J, Pringle M, Ebdon D, McPhearson M, Churchill D, et al. Association between teenage pregnancy rates and the age and sex of general practitioners: cross sectional survey in Trent 1994-7. *BMJ* 2000;320:842-5. (25 March.)
- 2 Adler M. Sexual health—health of the nation failure. *BMJ* 1997;314:1743-18.
- 3 NHS Centre for Reviews and Dissemination. *Effective health care. Preventing and reducing the adverse effects of unintended teenage pregnancies, vol. 3*. York: University of York, 1997:1-11.
- 4 Sexual Discrimination Act 1975, section 6(1).

Reports of urban and rural differences are contradictory

EDITOR—In their paper on teenage pregnancies and sex and age of general practitioners, Hippisley-Cox et al say that they found no evidence to support the introduction of more family planning clinics in rural areas since such practices already have lower teenage pregnancy rates.¹ In table 2, they quote the incidence rate ratio for urban practice versus rural practice as 0.73. Thus they report that the rate of teenage pregnancy in urban areas is only three quarters of that in rural areas. The other ratios in table 2—for example, that for at least one female doctor versus no female doctor, 0.84—are clearly interpreted in this way. Is there some mistake here?

The subjects are described as all pregnancies of teenagers aged 13-19. As Hippisley-Cox et al calculate rates on the basis of all teenagers registered with the practice, the subjects are all teenagers, not just the pregnant ones. This might seem nitpicking, but we should try to get these things right.

The actual incidence rate ratios reported are close to one, and so, although these factors may have a relation to teenage pregnancy, it does not seem to be an important

one. We should concentrate on the estimate, not the P value.

Hippisley-Cox et al say that practices with a female or young doctor had significantly lower teenage pregnancy rates than those without such doctors. “General practices, pilots for primary care medical services, and primary care groups with high teenage pregnancy rates can consider using this information when recruiting medical and nursing staff in primary care.” Are they really advocating sex and age discrimination in employment? I hope not!

Martin Bland *professor of medical statistics*
St. George's Hospital Medical School, London SW17 0RE
mbland@sghms.ac.uk

- 1 Hippisley-Cox J, Allen J, Pringle M, Ebdon D, McPhearson M, Churchill D, et al. Association between teenage pregnancy rates and the age and sex of general practitioners: cross sectional survey in Trent 1994-97. *BMJ* 2000;320:842-5. (25 March.)

Author's reply

EDITOR—Thank you for giving me the opportunity to reply on behalf of all authors to the substantive issues raised in these three letters. Bland spotted an error in table 2, and a correction has already been published in the *BMJ*.¹ We are not recommending age and sex discrimination in employment practice. It is for each team to consider the implications of our findings. Teams can consider the needs of their population and their existing staff members and use opportunities to increase patient choice where appropriate.

We have presented a practice level analysis (not a general practitioner level analysis) showing an association between lower teenage pregnancy rates and young and female general practitioners. In his first point, Wai-Ching Leung offers an explanation for our findings, namely the skills and qualifications of doctors. We were unable to obtain data for the diploma of the Royal College of Obstetricians and Gynaecologists and inclusion on family planning lists. The information regarding shared lists was not available. We have made an implicit assumption that practices have shared lists. If this were not the case, then this is likely further to increase the significance of our findings.

Our inclusion criteria were pregnancies in girls who were registered with practices in Trent. As stated in the paper, the hospital admissions database included patients who were registered with Trent practice but admitted outside of the region. There were 514 pregnancies in this category over the four year study period, and these were included in our analysis.

Gbolade makes excellent recommendations regarding record linkage. We made every effort to obtain a unique patient identifying code but were unable to do so. There are three problems. Firstly, the NHS number was not on the version of the database we had access to. Secondly, the NHS number is recognised as not being unique yet. Thirdly, even if it had been on the database and had been unique, we would not have been able to obtain ethical approval to extract such a

strong patient identifier without written patient consent. This would not have been feasible in the study executed.

Julia Hippisley-Cox *senior lecturer in general practice*
Division of General Practice, The Medical School,
Queen's Medical Centre, Nottingham NG7 2UH

1 Correction. *BMJ* 2000; 320:1436 (28 May).

Carriage rate of *Neisseria meningitidis* among university students

Further data are needed

EDITOR—The paper by Neal et al documenting risk factors for acquisition of *Neisseria meningitidis* among university students helps further our understanding of the aetiology of outbreaks of meningococcal disease at universities.¹ Several outbreaks have now been linked to bars and nightclubs.^{2,3} By showing that social factors such as attendance at bars influence acquisition, the study helps substantiate evidence that social behaviour is important in determining outbreak occurrence.

However, the threefold rise in carriage rates in the first four days of term is unexpected. The initial carriage rate (6.9%), as Neal et al acknowledge, is surprisingly low. In 16-24 year olds, carriage rates in both outbreak and non-outbreak situations are usually 20% or higher.^{4,5} The sudden increase, in a cross sectional study, to rates that would be normal for this age group suggests potential confounding. Carriage has been clearly documented to vary with age and sex,^{2,4,5} yet no comparison of the age and sex of the four groups is presented, nor are these variables included in the regression analysis that examines risk factors for carriage.

The study shows that virulent C2a strains are acquired more rapidly over the term than other strains. Rapid acquisition of disease causing strains was also suggested in the outbreaks at Cardiff and Southampton universities, where low carriage rates of serogroup C outbreak organisms were documented along with very close clustering of the cases in time.² If a rapid increase in carriage does occur at the start of term, and particularly if virulent C2a strains are transmitted preferentially as the study suggests, one would expect the rise in carriage to be accompanied by a dramatic peak in disease incidence in the first one to two weeks of term. Yet the peak of cases usually occurs after a delay of three to five weeks.¹ The alternative, albeit unlikely, explanation is that acquisition of different strains varies over time, with acquisition of C2a strains occurring later.

It would be useful if Neal et al could present further analysis to help rule out confounding as an explanation for the study's unexpected initial findings. Although variation in sensitivity of swabbing is difficult to exclude, Neal et al have otherwise done their best to validate the data. Nevertheless, a cohort study using sensitive microbiological

techniques would be required to confirm whether the rapid rise in carriage at the start of term is the result of a true rise in acquisition, whether differential acquisition of virulent and non-virulent strains occurs, or whether alternative explanations account for the findings.

Anna Gilmore *senior registrar in public health medicine*

London School of Hygiene and Tropical Medicine,
London WC1E 7HT
anna.gilmore@lshtm.ac.uk

James Stuart *consultant epidemiologist*
Communicable Disease Surveillance Centre (South West), Public Health Laboratory, Gloucester

- 1 Neal KR, Nguyen-Van-Tam JS, Jeffrey N, Slack RCB, Madeley RJ, Ait-Tahar K, et al. Changing carriage rate of *Neisseria meningitidis* among university students during the first week of term: cross sectional study. *BMJ* 2000;320:846-9. (25 March.)
- 2 Gilmore A, Jones G, Barker M, Soltanpoor N, Stuart JM. Meningococcal disease at the University of Southampton: outbreak investigation. *Epidemiol Infect* 1999;123:185-92.
- 3 Imrey PB, Jackson LA, Ludwinski PH, England AC III, Fella GA, Fox BC, et al. Meningococcal carriage, alcohol consumption and campus bar patronage in a serogroup C meningococcal disease outbreak. *J Clin Microbiol* 1995; 33:3133-7.
- 4 Cartwright KAC, Stuart JM, Jones DM, Noah ND. The Stonehouse survey: nasopharyngeal carriage of meningococci and *Neisseria lactamica*. *Epidemiol Infect* 1987;99:591-601.
- 5 Caugant DA, Hoiby EA, Magnus P, Scheel O, Hoel T, Bjuene G, et al. Asymptomatic carriage of *Neisseria meningitidis* in a randomly sampled population. *J Clin Microbiol* 1994; 32:323-30.

Authors' reply

EDITOR—We agree with Gilmore and Stuart that social factors are important in the epidemiology of meningococcal disease among university students¹ and that these contribute to the high rate of disease seen in this group.²

The threefold rise was unexpected, but, as mentioned in the paper, we have repeated this work using a cohort of 229 students who had swabs taken on their first day on arrival at university and again eight or 10 days later; this cohort showed a similar increase in carriage with overlapping confidence intervals. Given this finding, confounding is an unlikely explanation for the rise. The low initial carriage rate seen in both studies may reflect the effect of the prolonged summer holidays when many students disperse from their established social groups and go away. The increased carriage rates seen with more social mixing and residence on campus also supports the notion that the rise we described is real. Given local knowledge of how students were recruited it is unlikely that confounding could produce such a large effect.

Sex was controlled for in the analysis of carriage risk factors (table 2), although this was not mentioned. Most of the students were aged 18 or 19 (89.2%), and 97% were aged 21 or younger. Ages were evenly distributed by day, except during the final day when the students were slightly older, but restricting the analysis to those aged 18 and 19, or under 22, shows no significant changes in carriage rates. Age was not associated with carriage, although 0/17 students aged 25 and over were negative for meningococci.

Many of the isolates from Thursday and Friday towards the end of the first swabbing

round were likely to have been acquired at university, and these are the rapidly transmitted strains. The general absence of C2a in the first week and the much higher prevalence in November, when cases of disease peak,³ suggests that this strain may spread more slowly than others. The peak of C2a strains happened at the same time as the peak in cases among university students. In addition, one of the students who became ill while part of the study had carried the pathogenic strain for at least seven weeks before becoming ill,³ which implies that longer periods of carriage before illness may contribute to the mid-term peak of disease.

Preferential treatment of pathogenic or non-pathogenic strains could not be assessed as it is not possible to know whether a strain is pathogenic as disease is rare and there are host organism interactions involved in illness. The final point made in the letter about a cohort study has already been addressed.

Keith R Neal *senior lecturer*
Department of Public Health Medicine and Epidemiology
keith.neal@nott.ac.uk

Jonathan S Nguyen-Van-Tam *senior lecturer*
Department of Public Health Medicine and Epidemiology

Nicholas Jeffrey *medical student*
Department of Public Health Medicine and Epidemiology

Richard C Slack *senior lecturer*
Meningococcal Research Group, Division of Microbiology

Richard J Madeley *professor*
Department of Public Health Medicine and Epidemiology

Kamel Ait-Tahar *PhD student*
Meningococcal Research Group, Division of Microbiology

Katy Job *medical student*
Department of Public Health Medicine and Epidemiology

Martin C J Wale *regional epidemiologist*
Communicable Disease Surveillance Centre Trent

Dlawer A A Ala'Aldeen *reader*
Meningococcal Research Group, Division of Microbiology, University of Nottingham, Queens Medical Centre, Nottingham, NG7 2UH

- 1 Neal KR, Nguyen-Van-Tam JS, Jeffrey N, Slack RCB, Madeley RJ, Ait-Tahar K, et al. Changing rate of *Neisseria meningitidis* among university students during the first week of term. *BMJ* 2000;320:846-9. (25 March.)
- 2 Neal KR, Nguyen-Van-Tam JS, Monk P, O'Brien SJ, Stuart J, Ramsay M. Invasive meningococcal disease among university undergraduates: association with catered halls of residence. *Epidemiol Infect* 1999;122:351-8.
- 3 Neal KR, Nguyen-Van-Tam JS, Slack RCB, Kaczmarek EB, White A, Ala'Aldeen DAA. Seven week interval between acquisition of a meningococcus and the onset of invasive disease. A case report. *Epidemiol Infect* 1999;123:507-9.

Continuing to use APACHE II scores ensures consistency

EDITOR—Shann criticises the use of the APACHE II scoring system as an audit tool for intensive care performance.¹ He has two main arguments. Firstly, he says that the system is outdated in that it reflects North American standards in the early 1980s. Secondly, he says that it can mask substandard intensive care performance by magnifying the risk of death in the poorer intensive care

units, where patients will achieve higher scores through inadequate management during the first 24 hours after admission. He points out, too, that the collection of data is expensive and that the quality of data can vary between units.

These are undoubtedly fair points, but he overlooks one excellent reason why it is still appropriate to measure APACHE II scores. That reason is that measuring the scores enables an individual intensive care unit to monitor its performance against that in past years, provided it collects the APACHE II data consistently. After all, it is important for each unit to be able to answer what should be a simple question: are we performing better this year than we did 10 years ago? I doubt if every unit can answer that question.

In the intensive care unit where I work we have noted a gradual trend for patients both to die and to survive with steadily increasing APACHE II scores over the past 10 years. We would cautiously argue that we are getting better at treating critically ill patients. Over the past five years, however, the apparent improvement in our performance seems to have reached a plateau, even though patients are in general managed more aggressively than before and staying longer in the unit. This is disquieting, but it at least enables us to eschew complacency and ask ourselves some challenging questions in the hope of making improvements.

Would we have picked up this problem if we had changed our basic scoring system each time a new model came out? I think it unlikely.

William Konarzewski *clinical director of intensive care*
 Anaesthetic Department, Colchester General Hospital, Colchester, Essex CO4 5JL
 whkon@hotmail.com

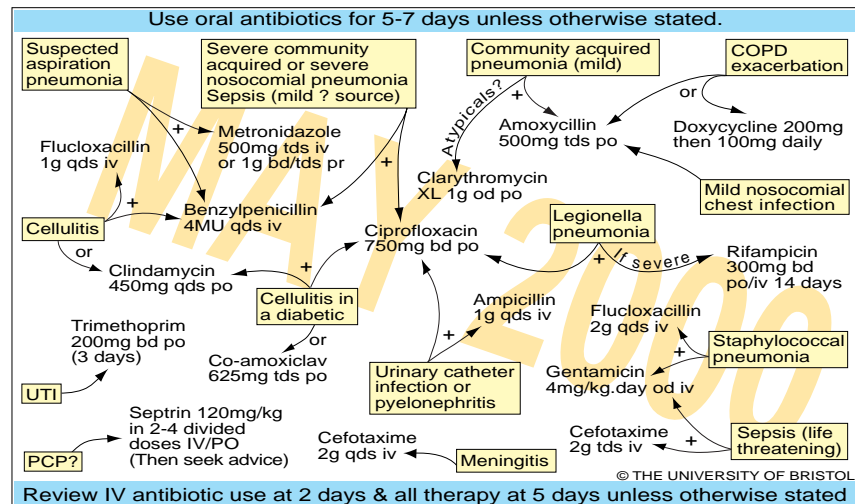
1 Shann F. Mortality prediction model is preferable to APACHE. *BMJ* 2000;320:714. (11 March.)

Awareness of a hospital's antibiotic policy can be improved

EDITOR—Nightingale et al examined prescribing in a specialist unit.¹ The problem for most of us with medical staff prescribing for patients scattered throughout a hospital is ensuring that the rule base is available at the time and place of prescription.

Although the division of medicine's antibiotic policy in Bristol was sent to all medical staff, an audit of the use of antibiotics showed considerable deviation from the guidelines. Prescribers did not question the concept of an antibiotic policy and were very willing to adhere to it in principle. Nevertheless, a proportion of the house staff either could not locate a copy of the policy at the time and place of prescription or denied the existence of such information.

Recirculating the policy in its original form on three A4 sheets was thought to have little chance of success as the papers would once again be lost within the mass of other information distributed in similar for-



Division of medicine's antibiotic policy printed for label to be stuck on to pagers

mat. A laminated A5 card small enough to fit in a pocket of a white coat was also deemed inappropriate as few of the house staff chose to wear white coats.

The antibiotic policy was therefore redrafted in diagrammatic form (Illustrator 6.0) to a size suitable for printing on to a sticky label (Avery Laser media labels L7671-25) the size of a pager (figure). These labels were overlaid with a sheet of self adhesive clear plastic film from a high street stationer and distributed to the house staff. Reaudit of awareness of the antibiotic policy showed that all the house staff were aware of the policy and found it serviceable and straightforward to use.

The problem was solved at a cost of less than 5p per person by abandoning conventional approaches and exploiting the one hard surface that all the target population habitually carried with them.

Andy Levy *reader in medicine, University Research Centre for Neuroendocrinology*
 a.levy@bristol.ac.uk

Debbie Campbell *medical directorate pharmacist, pharmacy department*

Robert Spencer *consultant microbiologist, Public Health Laboratory*
 Bristol Royal Infirmary, Bristol BS2 8HW

Robert Heyderman *senior lecturer*
 Department of Pathology and Microbiology, School of Medical Sciences, University of Bristol, Bristol BS8 1TD

Competing interests: Bayer provided the funding to purchase labels and cover film.

1 Nightingale PG, Adu D, Richards NT, Peters M. Implementation of rules based computerised bedside prescribing and administration: intervention study. *BMJ* 2000; 320:750-3. (18 March.)

Telling patients with schizophrenia their diagnosis

Patients should be informed about their illness

EDITOR—McGrath and Emmerson's review of the treatment of schizophrenia has ignited a lively exchange of views in the

BMJ, many of which cast doubt on the concept of schizophrenia or the value of giving this diagnosis.^{1,2}

A recent survey posted to all consultant psychiatrists in Scotland in May 1997 determined 211 consultant psychiatrists' views on whether to tell patients with schizophrenia their diagnosis. It showed that 200 (95%) respondents agreed that the consultant psychiatrist was the best person to do this, but only 124 (59%) stated that it was their usual practice to tell patients their diagnosis after the first established episode, and only 187 (89%) said it was their usual practice to tell patients their diagnosis after a second or subsequent episode of illness.³ Thirty one (15%) would not use the term "schizophrenia" when giving the diagnosis, instead using other, often confusing, terminology. An essential part of the treatment of people who have schizophrenia must be to inform them of their diagnosis. Not to do so reverts to a time of medical paternalism (as in previous cancer care) where patients were not allowed the basic ethical right to take part in decisions about their health care. Doctors often have to break bad news to patients and should be well aware of the negative and positive effects of this. The symptoms and signs of schizophrenia are more likely to be stigmatising than its name alone.

Not to speak of the diagnosis may simply alarm the patient, who in many cases will already have some idea of what their symptoms indicate. It leaves patients open to discovering their diagnosis in inappropriate ways or to seeking further information from dubious sources. Patients may be at a disadvantage when applying for benefits or housing, and not telling them the diagnosis may prevent them from accessing self help and support from voluntary organisations. It may also leave doctors at risk of legal challenge if they do not tell patients of their duty to inform the Driver and Vehicle Licensing Agency about their fitness to drive. Patients should be given information about their illness; in not doing

so their doctors may not be “treating” them well.

R A Clafferty *consultant psychiatrist*
r.clafferty@virgin.net

Elaine McCabe *staff grade psychiatrist*

Keith W Brown *consultant psychiatrist*
Forth Valley Primary Care NHS Trust, Westbank Clinic, Falkirk, Scotland FK1 5RQ

- 1 McGrath J, Emmerson WB. Treatment of schizophrenia. *BMJ* 1999;319:1045-8.
- 2 King J. What in fact is schizophrenia? *BMJ* 2000;320:800. (18 March.)
- 3 Clafferty RA, McCabe E, Brown KW. Are psychiatrists unwilling to tell patients with schizophrenia about their illness? *Royal College of Psychiatrists annual meeting proceedings*. London: Royal College of Psychiatrists, 1999: 193-4.

Patients expect a diagnosis

EDITOR—Bracken and Thomas say they manage perfectly well without using the diagnosis of schizophrenia.¹ How do the patients manage?

In their relationship with a doctor, patients expect the doctor to make a diagnosis, and they also expect to be entitled to share it. A diagnosis lets them know what the doctor is doing. It enables them to consider their own predicament and to form an opinion of the doctor's worth. Given a diagnosis, they can question it and the treatment that flows from it, and they can reassure themselves that they are getting the best treatment. They can assess the effects of treatment and come to their own conclusions about its value.

Bracken and Thomas state that a person who is given the diagnosis of schizophrenia may be devastated.¹ This may be true, but many more people who receive this sad diagnosis are relieved of having no diagnosis at all. At least it explains what has been happening and is a pointer to the future and to ways of cure. It confers power on the patient and allows the possibility of making informed choices.

Bracken and Thomas assert, on no evidence, that the negative connotations of a diagnosis of schizophrenia have increased recently.¹ The opposite may just as easily be said. What is true is that with the arrival of care in the community the media and public have taken more interest in schizophrenia (and other serious mental illnesses). They have become more knowledgeable, understanding, and responsible, and they look after their mentally ill fellow citizens in their midst better.

Martin Fisher *retired general practitioner*
Keyham, Leicestershire LE7 9JS

- 1 Bracken P, Thomas P. Value of diagnosis of schizophrenia remains in dispute. *BMJ* 2000;320:800. (18 March.)

Ability of toddlers to recognise TV images

Clinical utility of this milestone is not established

EDITOR—Lloyd and Brodie propose that the ability of an 18 month old child to recognise television images may be a useful milestone

in the assessment of development.¹ Their data derive from the examination of two conditions only: Down's syndrome and normality. To extend the concept to include learning disabilities in general, language disorders, and autism is not necessarily valid.

The authors found that their milestone had a high degree of specificity (96%): very few normal children were unable to recognise television images. The sensitivity of the milestone—its ability to detect Down's syndrome—was 81%. One fifth of children with Down's syndrome were not detected. We do not know how sensitive the milestone is to learning disability generally, language disorders, or autism. We cannot assume that the findings with the group of children with Down's syndrome can be generalised. Therefore, the clinical utility of this developmental milestone has not yet been established.

Michael Hunter *specialist registrar in psychiatry*
Community Health Sheffield NHS Trust,
Northlands Community Mental Health Centre,
Sheffield S5 8BE
mhunter@doctors.org.uk

- 1 Lloyd BW, Brodie K. Recognition of television images as a developmental milestone in young children: observational study. *BMJ* 2000;320:836-8. (25 March.)

Authors' reply

EDITOR—Hunter is quite right: our study says nothing about the proportion of children with various developmental problems who can recognise television images at the age of 18 months (apart from those with Down's syndrome).¹ To answer this question properly would be a challenging task.

Hunter's criticism applies equally to nearly all other tests of development. One exception is the checklist for autism in toddlers.² Data concerning the sensitivity of this checklist are in press (Baron-Cohen, personal communication). The checklist comprises three items and was originally investigated as a possible screening test—hence the need to establish sensitivity. We know of no studies of an individual milestone in which the authors have reported the sensitivity of the milestone in relation to the identification of children with developmental problems.

A child's development is evaluated by assessing the child's abilities on a range of tasks and behaviours. As with any milestone, passing our milestone does not mean that the child does not have a developmental problem. Similarly, failing our milestone does not mean that the child does have a developmental problem. The value of assessing a wide range of tasks and behaviours is that this process strengthens the conclusions that can be drawn about a child's developmental abilities. Our milestone is underpinned by a lot more data about how well normal children perform than is the case for many milestones that are used regularly. We stand by our conclusion that our milestone is a useful addition to the tasks and behaviours that can be used to

assess the development of children aged between 15 and 24 months.

Ben Lloyd *consultant paediatrician*
Royal Free Hospital, London NW3 2QG
blloyd@rfc.ucl.ac.uk

Kanthini Brodie *consultant community paediatrician*
Basildon Hospital, Basildon, Essex SS16 5NL

- 1 Lloyd BW, Brodie K. Recognition of television images as a developmental milestone in young children: observational study. *BMJ* 2000;320:836-8. (25 March.)
- 2 Baron-Cohen S, Cox A, Baird G, Swettenham J, Nightingale N, Morgan K, et al. Psychological markers in the detection of autism in infancy in a large population. *Br J Psychiatry* 1996;168:158-63.

More training is needed in health care of people with learning disabilities

EDITOR—Leonard et al's editorial concerns heart and heart-lung transplantation in Down's syndrome.¹ Possible bias and discrimination towards people with a learning disability having access to a range of health screening and intervention programmes are increasingly being recognised.² Rationing or prioritisation should be open. Criteria should be agreed by all stakeholders, with no code of silence among the healthcare professionals and with evidence based decision making.

We believe that the root of the problem for people with a learning disability lies in the lack of quality structured training in medical aspects of these people's care in the medical curriculum. Learning disability is generally taught about from within psychiatry faculties, with relatively few hours allowed in pressured curriculums. As many medical undergraduates dislike psychiatry and fail to see its relevance to medicine, learning disability risks being doubly stigmatised.

In previous decades, when most people with learning disability lived in colonies or similar institutions, local development of skills by associate specialists, general practitioners, or hospital specialists might have sufficed. The evidence on changes in life expectancy over recent decades, however, speaks volumes for the lack of aggressive interventions in the past.³ Today, with the full implementation of community care and the transfer of the onus of medical care to generic services, the issues of training for medical undergraduates and vocational training for general practitioners in this field must be addressed.

People with learning disabilities make up about 2% of the population. Although they are more likely to have concurrent medical illnesses than age matched controls, they are less likely to attend general practitioners and to be included in health screening, health promotion, or complex medical intervention programmes than people with similar health problems but without a learning disability.⁴ They are commonly excluded from clinical trial protocols into the effectiveness and safety of new treatments. Government supported

calls for improved health care⁵ have faced major obstacles in their implementation, partly as a result of the funding implication but we would contend also as a result of the defensiveness we all feel when faced with issues that we are not competent to tackle.

The establishment of a confidential inquiry into deaths of people with learning disabilities would improve transparency and quantification of health inequalities in this marginalised group. The training and exposure offered to medical undergraduates and postgraduate doctors in the health needs, and how to meet them, of these people should also be reviewed. Only by improving training will we increase competence and decrease discrimination.

Mhairi Duff *specialist registrar in psychiatry of learning difficulties*
University of Bristol, Norah Fry Research Centre,
Bristol BS8 1TX
m.c.duff@bristol.ac.uk

Matt Hoghton *consultant in physical health of people with learning disability*
Backwell and Nailsea Research Practice, Brockway
Medical Centre, Nailsea, Bristol BS48 1BZ

Mark Scheepers *specialist registrar in psychiatry of learning disability*
Severn NHS Trust, Gloucester GL1 3HZ

- Leonard H, Eastham K, Dark J. Heart and heart-lung transplantation in Down's syndrome. *BMJ* 2000;320:816-7. (25 March.)
- Aspray T, Francis R, Tyrer S, Quilliam S. Patients with learning disability in the community. *BMJ* 1999;318:476-7.
- Jancar J. Cancer and mental handicap: a further study (1976-1985). *Br J Psychiatry* 1990;156:531-3.
- Howells G. Are the medical needs of mentally handicapped adults being met? *J R Coll Gen Pract* 1986;36:449-53.
- Lyndsay M. Signposts for success in commissioning and providing health services for people with learning disability. Leeds: NHS Executive, 1998.

Letter indicates misreading of our paper on chromium waste

EDITOR—We agree with Moffatt and Bhopal that studies examining the impact on health of environmental hazards pose particular challenges in terms of reaching judgments about cause and effect.¹ We believe, however, that the concerns they raise indicate a misreading of our paper.²

Moffatt and Bhopal question our use of the SF-36 validated quality of life questionnaire to measure self reported health. The SF-36 is the most widely used generic measure of health and functional status and has been found to be easy to use and valid in large population studies.^{3,4} They suggest measuring self reported health status—which is in fact what we did. We agree that it would be desirable to measure chronic illness and a wide range of symptoms, but, as we stated, four studies examining health outcomes had already been conducted; all of these were negative. As anxiety persisted among potentially exposed residents, however, Greater Glasgow Health Board decided to examine the perceived health of the residents. We believe that the SF-36 was an appropriate instrument for this task.

We highlighted the problem of separating a "true" biological effect from the effects of "awareness bias" in communities that are aware of their exposure, but we did not, as Moffatt and Bhopal claim, remove the 25% of people who believed that the hazard had an adverse effect on health. In fact, we compared the reported health differences between those who did and did not believe that chromium was harmful and then commented on the differences, pointing out that those participants who believed chromium to be harmful may have had their generic quality of life reduced in the absence of any documented adverse health effects. We emphatically did not rely only on data from those who believed that chromium is not harmful.

The fact that most respondents preferred improvements to local amenities over chromium remediation does not imply acceptance of the hazard on our part. We pointed out that the desire for improved amenities over a clean up highlights the complexities of this situation. We then stated that the most appropriate response to environmental pollution issues is prompt and frank dialogue with exposed communities and public participation in the evaluation of any health risks to ensure that the resolution of such issues is democratic and acceptable to those affected.

We share Moffatt and Bhopal's views on environmental hazards in general, but they have misunderstood our paper in important respects.

Peter McCarron *lecturer in epidemiology and public health*

Tim J Peters *reader in medical statistics*
University of Bristol, Department of Social
Medicine, Bristol BSS 2PR
P.McCarron@bristol.ac.uk

I Harvey *professor of epidemiology and public health*
School of Health Policy and Practice, University of
East Anglia, Norwich NR4 7TJ

R Brogan *consultant in public health medicine*
Greater Glasgow Health Board, PO Box 15329,
Glasgow G3 8YZ

- Moffatt S, Bhopal R. Study on environmental hazards is flawed. *BMJ* 2000;320:1274. (6 May.)
- McCarron P, Harvey I, Brogan R, Peters TJ. Self reported health of people in an area contaminated by chromium waste: interview study. *BMJ* 2000;320:11-5. (1 January.)
- Stewart AL, Ware JE. *Measuring functioning and well-being: the medical outcomes study approach*. London: Duke University Press, 1992.
- Jenkinson C, Coulter A, Wright L. Short form 36 (SF-36) health survey questionnaire: normative data for adults of working age. *BMJ* 1993;306:1437-40.

Cycling and health

Doctors should cycle and recommend it to their patients

EDITOR—Carnall is right about cycling.¹ Under the right conditions many more short journeys could be cycled. In some Dutch and Danish towns up to half of all journeys are made by bike; in the United Kingdom it is about 1% or 2% in most towns, with notable exceptions such as York and Cambridge (20%), whose traffic engineers have catered for cyclists.

Many people say they would cycle more if the roads were safer—the biggest deterrent to more cycling is high traffic speeds and volumes. There is obviously a vicious circle to be reversed here, and it is a shame that Prime Minister Tony Blair passed on his recent opportunity (the government's road safety and speed policy reviews) to introduce a national urban speed limit of 30 km/hour.

None the less, cycling is a lot safer than it looks: the health benefits outweigh the accident risks, and the average daily cyclist enjoys a degree of fitness equivalent to someone 10 years younger. Doctors would do well to bear this in mind when visited by unfit and overweight patients. Instead of prescribing diets and gym based exercise, they could prescribe walking or cycling, or both, for regular journeys to work, to the shops, or to take the children to school.

Cycling as part of a daily routine will save you money, save you time (you don't get stuck in the traffic jams), and add years to your life. Doctors should get out and do it more, then recommend it to their patients. Hey, you might even enjoy it!

Richard Evans *ETA Car Free Day co-ordinator*
29 Somerset Avenue, Raynes Park, London
SW20 0BJ
richard@eta.co.uk

- Carnall D. Cycling and health promotion. *BMJ* 2000; 320:888. (1 April.)

Cyclists endanger pedestrians

EDITOR—I have read Carnall's editorial on cycling with interest.¹ I am an advocate of accident prevention as well as health promotion. I abhor the appropriation of space by motorised vehicles and the murder of innocent people by speeding motorists. But I would not like to see any further increase in cycling, as it is dangerous—not for the cyclist, but for the pedestrian.

Cycling is a male dominated activity that mainly attracts youths and young men. They are mostly large, muscular, and powerful. Their attitude to safety is typical of their age and sex. It is well known that men take more risks and have four times as many accidents as women. They like speed and taking risks. Increasingly, they show this behaviour when cycling, whether on the pavement, in public parks, on pedestrian walkways, or in subways—indeed, anywhere they see a route that is flat and unimpeded by traffic. Nor do they observe basic road drill. They speed round corners, jump pedestrian crossings, and use pedestrian refuges to cross the road. Legitimate users have no option but to jump clear. Accidents are avoided not by their care but by the vigilance of pedestrians.

Pedestrians are largely women, some elderly and some with children, toddlers, and infants. There are obviously some men, but they are mostly elderly. Women are smaller and may wear skirts that afford no protection to legs should they be hit. When walking, pedestrians have no means to see cyclists advancing from behind. Attention can easily be diverted. Children suddenly

dart to the side, as do older people not expecting a cyclist to come hurtling up from behind.

But if a collision were to occur, the pedestrian could sustain injury that could prove fatal—and who would foot the bill? Cyclists are not obliged to carry third party insurance and carry no number plate for identification. The injured could be left disabled, unable to work, or dependent without compensation.

Although it is illegal to cycle on the pavement, cyclists shout abuse if reminded. There is no evidence that the police apply the law. Yes, if roads were safer cyclists might use them. But the solution is not for cyclists systematically to push pedestrians off the pavement and also foot tracks in parks or the countryside so that pedestrians can never walk without the risk of injury.

Christine Love *senior lecturer orthopaedic nursing*
Faculty of Health Care Sciences, St George's
Hospital Medical School, London, SW17 0QT
clove@hcs.sghms.ac.uk

1 Carnall D. Cycling and health promotion. *BMJ* 2000; 320:888. (1 April.)

Congratulations to Carnall

EDITOR—If people in the United Kingdom have good reasons to promote bicycle use,¹ you can imagine how important this is in poor countries—for example, Brazil. Our bicycle project posted a message on a World Bank discussion list about poverty a couple of weeks ago arguing that improving bicycle infrastructure is a way out of poverty. We cited Roberts and part of his article published in the *BMJ* in 1999: “If the World Bank aims to reduce poverty and improve living standards by promoting sustainable growth and investment in people, it must do more to develop safe and sustainable transportation systems.”²

We believe that poverty can be reduced by providing bicycle infrastructure and promoting bicycle use. Infrastructure for bicycles is a lot cheaper than that for cars, not to mention savings in terms of the environment and the health of the population. Yet we will need big efforts to change our traffic situation since Brazilian car drivers are much less educated than those from developed countries and have no respect for pedestrians or cyclists. Yet there are signs of hope: in March we participated in a meeting in the transport ministry. A study was presented about bicycle use in more than 60 Brazilian cities, and there was talk of restarting a pro-bicycle programme, after almost 20 years of silence.

Giselle Noceti Ammon Xavier *professor*
CICLOBRASIL Group—Santa Catarina's State
University—UDESC, 88085 700 Florianopolis, SC,
Brazil
Pedala Floripa project pedalafloripa@hotmail.com

1 Carnall D. Cycling and health promotion. *BMJ* 2000; 320:888. (1 April.)

2 Roberts I. World Bank must do more to develop safe and sustainable transportation systems. *BMJ* 1999;318:1694.

Why promote cycling?

EDITOR—The American philosopher Ralph Waldo Emerson wrote in the 19th century: “The civilized man has built a coach but has lost the use of his feet.” The cave dweller's natural desire for exercise has been replaced by the city dweller's desire to pump the gas pedal. Recently, we have finally recognised the environmental and medical consequences of this, as made clear by Carnall in his editorial on cycling.¹

Studies have shown that 2000 kcal of weekly exercise is desirable, but doctors tend to recommend much less, sometimes as little as 15 minutes three days a week, if they recommend exercise at all.

A recent study has found that 2800 kcal a week of exercise helps control weight better.² In addition, *Scientific American* has reported that the average person worldwide spends 66 minutes per day travelling, whether walking, bicycling, or using motorised transport.³ I think these 66 minutes represent the natural amount of daily exercise we should be achieving.

But, as busy as people are, how can they find time each day for 66 minutes of exercise? I accomplish it by riding my bike to work. Little extra time is involved, the trip is more enjoyable, and I even save money. I therefore agree with the stance taken by Carnall. If doctors ride bikes to work, they will not only set a good example for their patients but will also get the health benefit they need as well.

Ken Kifer *part-time English instructor*
Gadsden State Junior College, Alabama 35904,
USA
kenkifer@kenkifer.com

1 Carnall D. Cycling and health promotion. *BMJ* 2000; 320:888. (1 April.)

2 www.cnn.com/HEALTH/diet.fitness/9911/16/howmuch.exercise/index.html

3 Shafer A, Victor D. The past and future of global mobility. *Scientific American* 1997;10 www.sciam.com/1097issue/1097schafer.html

Doctors—get on your bikes!

EDITOR—With reference to Carnall's editorial on cycling and health promotion,¹ biking can also have the advantage of bringing you closer to the people on the street, in my case the patients attending the Edinburgh Homeless Practice. Because I am in the open and slow I see more, I hear more, I smell more. That contributes to a greater understanding of the world our patients live in. Occasionally, I also talk more, having a chat with a patient on the street.

Helga Rhein *general practice consultant*
Edinburgh Homeless Practice, Edinburgh EH1 3AT
hrhein@telemedicine.ch.ed.ac.uk

1 Carnall D. Cycling and health promotion. *BMJ* 2000; 320:888. (1 April.)

Schoolchildren cycle on the continent

EDITOR—I have read the responses to Carnall's editorial on cycling.¹ None of your correspondents mentions the factor I

believe to be most important in encouraging my age group to cycle—separate cycle carriageways. I have just returned from an exchange trip to Munich, Germany, with a mixed group of 18 students from Leeds, aged 15. None of these students currently dares use a bicycle to travel to school, to friends' houses, or into town. However, when in Munich we all had lots of opportunities to cycle. All of the roads had segregated cycle paths, separate from both cars and pedestrians. I have also seen this sort of provision for cyclists in Denmark.

The German teenagers' parents had no problems letting them take their bikes out for the day, knowing they would be safe on their journeys. This gives my age group much wanted freedom and exercise.

Even if speed limits were reduced to 30 km per hour (enforced at 40 km per hour), would you let your teenager out for the day on a bike in the majority of cities and towns in the United Kingdom? I can see an increase in the number of teenagers wanting to (and being allowed to) use their bikes for transport only if separate carriageways are introduced. These do not include the pathetic painted cycle paths currently offered in Leeds where the roads are reasonably wide, which inevitably disappear when you really need them. Could we send our transport planners and the transport minister, John Prescott, to Denmark or Germany to see how it is done?

Zohra Chiheb *high school student*
9 Montagu View, Leeds LS8 2RH
Booicancu@aol.com

1 Carnall D. Cycling and health promotion. *BMJ* 2000; 320:888. (1 April.)

You are what you drive

EDITOR—I agree with Carnall that you are what you drive.¹ I'm a slimmed down, stop on a sixpence, nought to 20 in about a minute, bright green mountain bike. I'm well adapted for country and town, never known to shrink in the rain, enjoying the sun on my face and on my back. I'm nippy and fit, and most mornings and evenings I'm on top of the world.

Why can't we hijack the advertising? Yes, you are what you drive, but this is only really true if you drive a bicycle.

Ian Wacogne *paediatric registrar*
Royal Children's Hospital, Brisbane, Queensland
4029, Australia
wacogne@hotmail.com

1 Carnall D. Cycling and health promotion. *BMJ* 2000; 320:888. (1 April.)



Rapid responses

Correspondence submitted electronically is available on our website