already. It does not, however, mean that transmission will not occur when these conditions change, as they have in some parts of the United Kingdom,¹ and it gives us no clues about the likely factors which operate in centres where heterosexual spread is being observed regularly.

This study provides no evidence of the partners' antibody state and is therefore not a study of heterosexual spread of HIV infection. Furthermore, the partners' risk factor was known in only 97 (8.7%) of the 1115 women studied. All it can do is draw tentative conclusions about local prevalence. The use of hepatitis B antibody as a surrogate marker for HIV risk is of little value. Most cohorts of drug users and homosexual men have a very high prevalence of this marker but currently low prevalence of HIV antibodies. In these high risk groups its predictive value is limited, as exposure to this infection has often occurred over many years; the position with HIV is different.

The authors suggest that educational campaigns have been unsuccessful but admit that their prevalence study was carried out immediately after the national media coverage. Behaviour change is complicated and not merely instantly responsive to any propaganda. There is considerable information emerging that the population does now understand the facts. Changes in behaviour will occur when adequate data, good data, suggest to the individual that he or she personally is at high risk.² Papers like this run the risk of reassuring the population of their low risk state even when the authors' own evidence indicates the presence of the start of a heterosexual problem. Our own paper and the work of others indicate that such complacency will soon be shown to be misguided as infectivity is better understood. Population studies showing any seropositivity at this juncture can only be interpreted as a problem. The assumption that the risk to the heterosexual population is low is the very reason why a long term outlook may be bleak. Behaviour in this group will change only when the risk is perceived as being high; unfortunately by that time the epidemic may suddenly have become obvious and unstoppable.

A J FRANCE
CAROL SKIDMORE
J R ROBERTSON
J J K ROBERTS

Edinburgh Drug Addiction Study,
Edinburgh EH4 4PL

1 France AJ, Skidmore CA, Robertson JR, *et al.* Heterosexual spread of HIV infection in Edinburgh. *Br Med J* 1988;296:526-9.

2 Robertson JR, Skidmore CA, Roberts JJK. HIV infection in intravenous drug users: a follow up study indicating changes in risk taking behaviour. *Br J Addict* (in press).

AUTHORS' REPLY.—We hope that Dr Mills and others will be reassured to learn that to date no harm has resulted to any of the women in our study screened for antibodies to HIV without their explicit consent. Our patients were tested routinely without being asked and without any record being made in their clinical notes so that the fears expressed about implicit refusal, repeat counselling, and accidental revelation were eliminated by the study design. With regard to the one patient who was unexpectedly positive a second sample would have been essential anyway before the diagnosis could have been made, and this was refused.

It is difficult to follow the arguments in the letter from Dr France and his colleagues in Edinburgh. Their paper found HIV infection in seven (5.7%) of 123 people at risk by heterosexual intercourse with partners "classified as abuser of intravenous drugs, prostitute, or other."¹ All seven found

to be positive had been the regular partners of intravenous drug abusers for 18 months or more and knew that their partners were positive. Casual encounters in 39 subjects produced no one who was positive for antibodies to HIV.

A screening study of sexually active women became a priority after the government's decision to accept advice that HIV was a risk to the general community and to proceed with this message in a national health education campaign. A study restricted by consent might have found a similar prevalence to the one we reported but the real prevalence could have been much higher and the study therefore of little value. Moreover, it seemed unethical to design a study which at the same time did not allow a woman infected by HIV to know if she so wished.

We have continued testing since this study but on the basis of informed consent, with a refusal rate of around 5%, unrelated to risk behaviour. The prevalence of HIV infection has remained below 0.25%, with four out of a further 1842 women positive in 1987. All of them had known of their high risk as sexual partners of intravenous drug users or bisexual men. Our conclusion that there is no evidence of spread by casual vaginal intercourse is thus sustained and now further supported by the study from Edinburgh.

Finally, we wonder whether it is ethical to confront an individual at no known risk with the possibility of an incurable infection, particularly when knowledge of having had or been offered an HIV test, regardless of the reason, might prove prejudicial both personally and financially. May this not be the main reason why some patients decline testing?

B A EVANS
S G M McCORMACK

Department of Genitourinary Medicine,
West London Hospital,
London W6 7DQ

SIR,—Dr Brian A Evans and others (13 February, p 473) conclude that heterosexual women in London are at a low risk of becoming infected with the human immunodeficiency virus (HIV). We did a similar survey in our department and support their conclusion.

Before the public information campaign about HIV infection 730 women who attended this department as new patients were tested for antibodies to HIV virus and to hepatitis B core antigen. All patients were fully counselled and the tests were performed with informed consent. Fifty five patients had declined the test after counselling and were excluded.

Two women were positive for HIV. One had been a drug addict and the other came from central Africa. Neither was hepatitis B positive. One woman was positive for hepatitis B antigen but was negative for HIV antibody. She had no known risk factors for hepatitis B. We do not yet know the hepatitis B state of her consort.

In an initial study 91 out of 355 patients had sexually transmitted diseases; the incidence of these diseases in women attending the clinic is high compared with the low incidence of HIV and hepatitis B infections.

We have not seen any HIV positive white heterosexuals other than from the recognised risk groups. We suspect that earlier fears of rapid spread of HIV infection among heterosexuals were exaggerated.

M SIVAKUMAR
D D COELHO
R BASU ROY

Department of Genitourinary Medicine,
Royal Victoria Hospital,
Bournemouth BH7 6JF

Chickenpox in pregnancy

SIR,—Drs K Boyd and E Walker (6 February, p 393) concluded that chickenpox in pregnancy is sufficiently hazardous to merit admission to hospital and early treatment with acyclovir. I support this recommendation and report a recent maternal death due to infection with varicella zoster.

A 28 year old woman was admitted in labour 31 weeks into her fifth pregnancy. Two of her children had recently had chickenpox. The typical maculovesicular rash appeared three days before admission, when she had a temperature of 39°C. Symptoms and signs of a viral pneumonitis were present.

A boy weighing 1650 g was delivered vaginally in good condition. He was given zoster immune globulin, and treatment with acyclovir was started. He developed respiratory distress syndrome, bacterial pneumonitis, and septicaemia, but there was no clinical or serological evidence of varicella zoster infection. He was discharged at the age of 3 months.

After delivery the patient's condition deteriorated rapidly with clinical and radiological evidence of worsening pneumonitis. Treatment with acyclovir was started but before the patient could be transferred to the intensive care unit for ventilation she had a hypoxic cardiac arrest. Resuscitative measures were initially successful but cardiac and renal failure ensued and were complicated by coagulopathy. Despite peritoneal dialysis the patient died 11 days after delivery.

A necropsy was not performed but varicella zoster infection was confirmed by viral culture and antibody titre.

Varicella zoster infection in pregnancy, especially when complicated by pneumonitis, has a serious morbidity and mortality for mother and fetus. A maternal mortality of 40% has been reported.¹ The outcome may be improved by better awareness of the implications of the condition in pregnancy, early aggressive use of antiviral chemotherapy, and early recourse to ventilatory support.²

R G WHITE

Royal Maternity Hospital,
Grosvenor Road,
Belfast BT12 6BB

1 Chodos WS. Varicella in pregnancy: report of case and review of literature. *J Am Osteopath Assoc* 1982;81:644-6.

2 Landsberger EJ, Hager WD, Grossman III JH. Successful management of varicella pneumonia complicating pregnancy. A report of three cases. *J Reprod Med* 1986;31:311-4.

How does smoking harm the duodenum?

SIR,—Dr M Guslandi (30 January, p 311) reviews and supports the case for the use of "cytoprotective" agents for the treatment of duodenal ulcer in smokers, but these claims are based on questionable evidence.

Firstly, some of the quoted studies of the effect of smoking on ulcer healing have been criticised in terms of study design.¹ More importantly, the evidence for differential healing in smokers is based on only one trial for each agent quoted, whereas there are other possible trials of these agents from which to draw. Most trials of healing agents in duodenal ulcer have not been stratified prospectively or have not been of sufficient size to enable accurate analysis of smoking as a secondary end point.

To shed some light on the smoking controversy we undertook a formal meta-analysis of the effect of smoking in trials of duodenal ulcer healing.² Thirty trials representing 4451 patients and 64 individual study arms met the inclusion criteria of randomised double blind endoscopically controlled

trials, with healing data for smokers versus non-smokers at four to six weeks after independent analysis by two observers. Fewer ulcers were healed in smokers at the predetermined time points in clinical trials (-9.24% , $p<0.00001$, Mantel Haenszel χ^2). Analysis by drug class indicated that a similar difference in healing rates between smokers and non-smokers was seen for all agents with the possible exception of the proton pump blocker omeprazole.

Since smokers are also recognised to fare worse on placebo,¹ the true response to treatment was studied by calculating the "therapeutic gain"—that is, the proportion healed over placebo for those trials with a placebo arm. This showed that smokers and non-smokers responded to treatment equally well (33% v 32%), and range testing showed this to hold for all drug classes. We concluded that there is no good evidence for the impairment of any therapeutic response once an ulcer is present. Initial ulcer size might explain why the adverse effect on healing is not seen in the omeprazole group, as this is such a powerful healing agent that all ulcers, irrespective of size, are healed by four weeks.

RICHARD H HUNT
STEPHEN G CHIVERTON

McMaster University,
Division of Gastroenterology,
Hamilton, Ontario,
Canada L8N 3Z5

- 1 Hawkey CJ, Walt RP. Misoprostol, smoking, and duodenal ulcer healing rates. *Lancet* 1987;ii:393.
- 2 Chiverton SG, Burget DW, Hunt RH. Smoking does not impair the response to therapy in duodenal ulcer healing. *Gastroenterology* (in press).
- 3 Kikendall JW, Evalul J, Johnson LF. Effect of cigarette smoking on gastrointestinal physiology and non-neoplastic digestive disease. *J Clin Gastroenterol* 1984;6:65-78.

Services for sickle cell disease

SIR,—While agreeing with much of what Dr Ian Franklin says about services for patients with sickle cell disease (27 February, p 592), I take exception to his remarks about the service provided for such patients in Newham. He states that there is "an almost total lack of facilities," and "inadequate, or incorrect, and condescending advice...all that was available from health workers." These statements were based on a report compiled by the Sickle Cell Society.¹ What was not mentioned was the considerable help and cooperation given to the researchers by this department (acknowledged in the report) and that the report was based on anonymous interviews with patients and some staff, which did not therefore allow for any right of reply. Many of the grievances expressed by patients were valid, and we have tried to respond sympathetically to these, but some members of staff felt unfairly misrepresented when their honest admissions of wanting to know and understand more about sickle cell disease were interpreted simply as ignorance.

It is a pity that Dr Franklin did not check to see what has actually happened in Newham. A screening programme for antenatal patients was established in 1984, and referrals for antenatal diagnosis in affected couples have been increasing steadily since then. We have a ward designated for patients with the disease and regular outpatient review. Negotiations with the district health authority for a counsellor date back to 1985, and our counsellor has been in post since 1987. There is now a joint paediatric clinic and all pregnant patients with the disease are carefully monitored by an obstetrician and a haematologist. In setting up these facilities there has been a great deal of good will evident from already hard pressed staff, particularly in

running the antenatal screening programme, and considerable interest and enthusiasm have been expressed during the various teaching sessions which have been organised for general practitioners, casualty staff, and nurses. Most of these developments date back to before this particular report was written. Of course, things are not perfect and there is plenty of scope for improvement, but the statements made are not accurate reflections of what is actually done in Newham.

M L TILLYER

Department of Haematology,
Newham General Hospital,
London E13 8SL

- 1 Black J, Laws S. *Living with sickle cell disease*. London: Sickle Cell Society, East London Branch, 1986.

Home visiting by consultants

SIR,—For the reasons admirably set out by Dr Graham Mulley (20 February, p 515) home assessment of old people referred to the psychogeriatric service, even those referred for acute admission, is good practice. Beds are always in short supply, particularly those for the elderly demented in a crisis, and it may be necessary to assess priorities between several, apparently equal, urgent applications. When a bed has to be refused it seems incumbent on the consultant to visit and perhaps offer alternative solutions based on his or her own service. It is very often the crisis admission which leads to inappropriate placement or to disastrous and permanent disruption of previously functioning support networks.

The questions raised by the present use of domiciliary consultations stem from the fact that the policy of home assessment accepted as good practice by many geriatricians and, I suspect, most psychogeriatricians has been grafted on to a system not designed for the purpose. In the unit in which I work we have partly solved the problem by screening all requests and dividing these into domiciliary consultations—that is, those which comply with the conditions laid down for the domiciliary visits—and home assessments. Home assessments include all requests for acute admission and requests for some part of the service rather than for diagnosis and home management. Home assessments are still performed largely by the consultant, but an increasing number are being successfully carried out by community psychiatric nurses, unit social workers, and medical staff in training. In 1987 there were 281 new patients seen at home assessments and 102 follow up visits. Of these, 105 were claimed as domiciliary consultations. Unfortunately, we have neither the means nor the time to evaluate the cost effectiveness of the system. But in terms of waiting lists we have been able to maintain our target of seeing urgent referrals within 24 hours and almost all referrals in less than two weeks. I suspect that this compares favourably with many psychiatric waiting lists.

ZOE SLATTERY

West Suffolk Hospital,
Bury St Edmunds,
Suffolk IP33 2QZ

New staff grade and associate specialists

SIR,—It is interesting to see that in setting a salary scale for the new staff grade (20 February, p 585) the review body is particularly concerned about the relativities between this grade and the associate specialist grade.

I understand that the DHSS has agreed to

discuss possible improvements to the terms and conditions of service for associate specialists, and I would like to propose the following points.

Firstly, the associate specialist grade is a senior hospital grade and those in it are experienced in their particular specialties. Most have undergone general professional training in their specialties as senior house officers and registrars, and some have memberships and fellowships of the appropriate college or faculty. In contrast, the minimum entry requirements to the staff grade will be three years' service as a senior house officer. There is a possibility of promotion to associate specialist and indeed the staff doctor can compete to re-enter a training grade and will be entitled to salary protection. Those associate specialists who have got their postgraduate qualifications and have the aptitude and willingness to get higher professional training should be able to do so and be entitled to salary protection, which would enable them to compete for consultant posts.

Secondly, the salaries of associate specialists should reflect their seniority and responsibility. The salary for one session a year at the maximum point (£2333) is less than that of a hospital practitioner (£2450). The outdated method of calculating the extra duty allowances should be scrapped, and those who do more than 11 sessions (whole time) a week should be entitled to extra payments at basic rate.

Finally, the early and partial retirement provisions that would apply only to consultants at the moment should be extended to associate specialists. This would help the health authorities to release funds so that they can create new consultant posts.

K P REDDI

Rathlin Unit,
Purdysburn Hospital,
Belfast BT8 8BH

** The secretary writes: "During the negotiations on *Achieving a Balance* the DHSS agreed that priority would next be given to discussions on possible improvement to terms and conditions of service for associate specialists. In preparation for these negotiations, and at the request of the profession and the DHSS, the Office of Manpower Economics is undertaking a survey of associate specialists, which will provide independent evidence of their work and responsibilities."—ED, *BMJ*.

A blot on the profession?

SIR,—As newly appointed dean of St George's Hospital Medical School I was disturbed by the title and tone of the leading article by Drs Stella Lowry and Gordon Macpherson (5 March, p 657). It might have been fairer had they entitled it "A blot on human behaviour" because this medical school never set out to discriminate against coloured or female students, as evidenced by the high proportions of such students at our school. Our mistake was to allow an observational computer program intended to imitate what were thought to be impartial selection procedures to be adopted as an executive program and subsequently for the bias in it to go unnoticed or unreported.

Drs Lowry and Macpherson do not acknowledge the painstaking internal inquiry by senior members of the council of this school, which formed the basis of the report by the Commission for Racial Equality. Neither do they mention that our completely new admissions policy now serves as an example to other institutions.

WILLIAM ASSCHER

St George's Hospital Medical School,
London SW17 0RE