Our data suggest that the ethnic origin of populations should be considered when median data are constructed for analysis of the risk of Down's syndrome.

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1 Gilbert L, Nicholl J, Alex S, Smethurst I, Mander A, Andrews A, et al. Ethnic differences in the outcome of serum screening for Down's syndrome. *BMJ* 1996;312:94-5. (13 January.)

For appreciable ethnic differences in false positive rates, use different cut off points

EDITOR,—Lucy Gilbert and colleagues report ethnic differences in biochemical screening for Down's syndrome and the relative ineffectiveness of the programme in Indian Asians.¹ At national meetings of the Association of Clinical Biochemists we presented our findings on the ethnic differences in maternal serum α fetoprotein and free β human chorionic gonadotrophin concentrations² and the differences in false positive rates in the various groups, which remain unchanged even after the use of "ethnospecific" medians.³

The false positive rate was highest in Afro-Caribbean women (9.2%; n=185) and lowest in white women (4.6%; n=328), with that in South Asian women being between the two (6.3%; n=315). Since then we have re-examined our database as we have acquired considerably more data. Contrary to our previous findings, while the false positive rate remains highest in Afro-Caribbean women, it is slightly lower in South Asian women than in white women. The false positive rates remain essentially unchanged, as before, after use of ethnospecific medians (table 1). The reason for this difference in the false positive rate in the South Asian women is not clear and could be the considerably smaller numbers we had at the time.

Reports suggesting that the incidence of Down's syndrome is low in South Asians, even after migration,⁴ seem consistent with our findings. We remain unconvinced that the detection rate (0/2) found in "Indian Asians" by Gilbert and colleagues is sufficient for it to be concluded that screening is ineffective in these women. Our data do not support this view. The low incidence of trisomy in South Asian women, if confirmed, might be a more convincing argument for abandoning biochemical screening in these women. More information about the true incidence of trisomy in South Asians in Britain is necessary before any major changes in screening strategies are undertaken.

The differences in false positive rates are probably due to different curve parameters for α fetoprotein and human chorionic gonadotrophin in normal and Down's syndrome pregnancies in different ethnic groups. We recommend that laboratories serving multiracial populations should examine the false positive rates separately in the different ethnic groups as the average rate might be misleadingly low; when there are appreciable ethnic differences in the false positive rates they should consider using different cut off points, particularly in Afro-Caribbean women, to avoid subjecting these women to unnecessary anxiety and invasive investigations.

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Table 1—Ethnic differences in biochemical screening for Down's syndrome*

	White women (n=1485)		South Asian women (n=1511)		Afro-Caribbean women (n=887)	
	AFP (U/ml)	HCG (ng/ml)	AFP (U/ml)	HCG (mg/ml)	AFP (U/ml)	HCG (ng/ml)
Weeks' gestation:						
15	22.9	18.1	20.8	16.7	26.7	18.0
16	26.4	14.3	24.3	13.6	30.7	15.1
17	30.5	11.4	28.4	11.0	35.4	12.7
18	35.3	9.0	33.1	9.0	40.8	10.7
19	40.9	7.2	38.7	7.3	47.0	9.0
20	47.3	5.7	45.2	5.9	54.1	7.6
False positive rate (%):						
Overall median	5.7		5.2		6.8	
Ethnospecific median	5.7		5.0		7.2	
No of Down's syndrome pregnancies†	2 (1.3/1000)		1 (0.7/1000)		2 (2.3/1000)	
No of cases of Down's syndrome diagnosed before birth	0		1		1	
No of unscreened Down's syndrome pregnancies	1		0		1	
Detection rate (% (No)) of Down's syndrome‡	0 (0/1)		100 (1/1)		100 (1/1)	

AFP= α Fetoprotein. HCG=Human chorionic gonadotrophin.

*Biochemical variables (assayed by Delfia α fetoprotein/free β HCG Dual, Wallac Oy, Turku, Finland) were corrected for maternal weight.

†Cases diagnosed before and after birth, including unscreened pregnancies.

‡Percentage of screened Down's syndrome pregnancies detected before birth.

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Median values and maternal weight specific to the ethnic group should be used

EDITOR,—Lucy Gilbert and colleagues report a 3.5-fold increase in the proportion of women found to be positive on screening for Down's syndrome when rates among Indian Asian women were compared with those among white women.¹ This prompted me to examine the data from Oldchurch Hospital's screening programme. Unlike Gilbert and colleagues' study, this screening programme uses α fetoprotein and free β human chorionic gonadotrophin as biochemical markers, a combination shown to give a detection rate of 75% at a false positive rate of 5%.² Screening with this test combination has been carried out in my department since 1991, and over the past four years about 50 000 women have been screened. Women are assigned to one of four ethnic groups: white, Afro-Caribbean, Asian, and oriental/others/unknown. Table 1 shows the breakdown of the screened population by ethnic group and the proportion found to be positive.

The findings in our much larger study population do not confirm Gilbert and colleagues' finding of an increased probability of a positive result of screening in Asian women. I agree that there is considerable evidence for ethnic differences in the median concentrations of the various analytes used, particularly α fetoprotein and intact human chorionic gonadotrophin in Afro-Caribbeans³ and free β human chorionic gonadotrophin in oriental women.⁴ Provided due consideration is given to using medians specific to the ethnic group that have been derived from the test population and provided due regard is taken of the maternal weight in these groups (which may vary appreciably from that in a white population), then general screening principles can be applied. As has been

shown in a large study of oriental women, provided these factors are taken into account detection rates of 84% at an amniocentesis rate of 50% are readily achievable—certainly when measurement of α fetoprotein and free β human chorionic gonadotrophin is used.

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When marginal costs and benefits should be used in screening

EDITOR,—Contrary to the statement by David J Torgerson and Anne Spencer in their article on marginal costs and benefits,¹ we did not evaluate the economic consequences of changing screening for Down's syndrome from the method based on maternal age to that based on biochemical screening. We directly estimated the cost of detecting a pregnancy in which the fetus had Down's syndrome by using biochemical screening (the triple test).²

The example that the authors give of how to use marginal costs and benefits to guide a decision on changing from one form of screening to another does not compare the cost of the two methods at the same level of detection and is therefore not an

Table 1—Analysis of screened population by ethnic group and screened positive rate

	Afro-Caribbean	White	Asian	Oriental/other/unknown	Total
Total	3054	36 720	5490	4592	49 856
No (%) positive on screening	186 (6.1)	1 899 (5.2)	302 (5.5)	266 (5.8)	2 653 (5.3)

appropriate comparison of their cost effectiveness. To do this it is necessary to hold the detection rate constant because the cost effectiveness varies according to this rate. To take advantage of the improved screening methods that allow higher detection rates without increasing the number of amniocenteses, biochemical screening should be chosen because at a detection rate of 60% it is about twice as cost effective as screening based on maternal age (fig 1). At a detection rate of 60% screening based on maternal age may be unacceptable whatever the cost because amniocentesis would have to be performed on 30% of all pregnant women, but it is nevertheless the appropriate comparison for the economic analysis. As shown by figure 1, which is based on the cost estimates cited,^{1,2} biochemical screening is less cost effective than screening based on maternal age at detection rates below about 40% but more cost effective at higher detection rates.

Fig 1—Cost per case of Down's syndrome detected by screening based on maternal age and screening with triple test (serum α fetoprotein, unconjugated oestriol, and human chorionic gonadotrophin concentrations interpreted together with maternal age) according to detection rate. Cost estimates^{1,2}: £14.50 per serum test and £150 per amniocentesis and karyotyping

It is useful to recognise two distinct questions. Firstly, which method of screening is the least expensive method of achieving a given detection rate? This should be determined from total costs. Secondly, what is the extra cost of increasing the detection rate by a specified amount when a particular method of screening is being used? This should be determined from marginal costs and benefits.

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Supervised discharge is anachronistic

EDITOR,—Some readers may be unaware that on 1 April an amendment to the 1983 Mental Health Act came into force. This gives to psychiatrists—known in legislative parlance as the responsible medical officer or, more alarmingly, the community responsible medical officer—new powers for the “supervisions” of mentally ill patients, termed supervised discharge.

This act, however, confers no additional therapeutic powers for treating people with an illness. On the contrary, it gives powers that might be deemed more appropriate to the dystopia of George

Orwell's 1984. Thus a patient subject to supervised discharge can be required to “live in a particular place”; can be ordered to “attend a particular place at set times for medical treatment, occupation, education, or training”; and has to allow access to “his or her place of residence” to the supervisor. If the patient refuses entry then the responsible medical officer has to revert to a magistrate's order under section 135. If the patient refuses drug treatment (the usual cause of relapse in psychotic illness) then a further treatment order under section 3 of the act is still required. Plus ça change.

Thus psychiatrists can now take away patients' freedom to choose where they might live or what they might do with their time. Is this “therapeutic”? Paradoxically, under section 24 (of the 71 sections of the “guidance”) it is accepted that “Supervised Discharge is unlikely to be effective unless the patient has understood and accepted its terms.”¹ But since many psychotic patients who might be considered for such an order by definition lack insight, they are hardly likely to agree to it. In other words, the act is ineffective for the very group of people for whom it is meant to be effective.

The imprint of Home Office bureaucracy is indicated by the imposition of six new statutory forms; during the parliamentary process there was active opposition by, among others, the Royal College of Psychiatrists, the mental health charity MIND, and the police, who were all concerned that the government now regards mentally ill people as “ticket of leave” prisoners. This notion of supervision is an anachronism, and we would advise all potential responsible medical officers to think twice before considering its use.

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Junior doctors' hours

Alternative representative body is needed

EDITOR,—A Simon Carney and the Junior Doctors Committee must think that those of us who do not agree with them are working in the dark ages. According to Carney's letter, we are still doing unnecessary operations till the early hours of the morning.¹ I cannot remember the last time I had to operate after midnight other than in life threatening cases.

Since the publication of my previous letter² I have received many positive responses through the *BMJ* and personal communications. The response from the Junior Doctors Committee was predictable: I received a letter from the South Wales committee telling me not to express my views in the *BMJ* but to discuss them in an open forum such as the Junior Doctors Committee conference. I cannot think of a forum more open than the *BMJ*. I wonder if the committee is trying to shut me up. The replies from the committee clearly show its unwillingness to listen: it continues to repackage its old, feeble arguments and pretends that it has something new to say. The committee blames the royal colleges for implementing the reduction in hours and denies responsibility. Yet we have not been bombarded by the royal colleges or hospital administrators with information concerning reductions in hours.¹

Many of us want to be more than just competent when we finish our training. We cannot see how

further reductions in hours will allow us to achieve this. Yet the committee thinks that this can be achieved by some miraculous means; perhaps it would share the secret with us. If we are not careful we may end up with a generation of suboptimally trained doctors.

A few years ago I used to attend meetings of the local Junior Doctors Committee; as with today's committee, talking to the members was like hitting a brick wall. This experience is shared by many others. To the suggestion that we should join the committee I have only this to say: “we don't walk the same walk, we don't talk the same talk, and we certainly don't sing the same songs.” I have wasted enough time with the committee in the past, so why should I waste any more now? If the committee is split in its views on the reduction of senior trainees' hours then perhaps we should have a referendum to decide the matter.³ The committee has not shown the capacity to listen and maintains that it is representative of the juniors in our profession. This is clearly not the case, and perhaps it is time to set up an alternative representative body of people willing to listen that can deal with these issues sensibly.

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Junior doctors need to have time for their lives outside medicine

EDITOR,—It clearly needs saying again: the pay was not the problem for junior doctors.¹ Junior doctors have lives outside medicine. Increasingly, doctors are women, and some are women with children. I trained under the “old system” but not very long ago, often working 120 hours a week during my three years in hospital, and I was constantly frustrated by the institutional lack of recognition of doctors as people. I did not enter medicine straight from school: I took an arts degree, worked and lived abroad, married, and had children before deciding to become a doctor. I now work as a full time general practitioner. Junior doctors are no longer a homogeneous mass of raw, mostly male, youths, and it is distressing to see that in the debate on junior doctors' hours this remains the assumption.

The “new system” may cut across continuity of care, but I cannot see how V Vasantha Kumar can argue that release from continuous pressure on a regular basis, together with more opportunity to develop as people, can “poison” trainee doctors.¹ Doctors fail not through lack of training but through lack of awareness of their limitations and an inability to communicate their needs. Depriving doctors of a wider experience of life during their hospital training results in the complacent, narrowly skilled, unwittingly patronising type of consultant all too familiar in the history of British medicine. It has taken many years of campaigning to show that the old system was bad for patients and bad for doctors. In attempting to get the new system right we should be clear that the main issue regarding junior doctors' hours was to do with ways of working and the kind of doctors we wished to produce and not just the question of remuneration.

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