

worsened with increasing age and decreasing socioeconomic status. The five year survival of patients aged under 35 was 69% and that of those aged 55-64 was 47%. The five year survival in those of above average affluence in the Greater Glasgow Health Board area was 59% compared with 52% in those below average. Younger and more affluent patients presented with earlier and more curable disease, possibly because screening was more effective among these groups. Women aged over 50 are at high risk of developing carcinoma of the cervix if they have been inadequately screened. We suspect that there are still many women aged 50-64, particularly in deprived areas or among especially mobile populations, who have never been screened.

Evidence offered by Van Wijngaarden and Duncan would suggest that the scope for success for cervical screening is not uniform across all age groups for the target population as presently defined. Although we cannot disagree with the requirement for a screening procedure that the condition sought should be reasonably common, asymptomatic cases of invasive cancer may also be detected by cervical screening. If, as seems likely from Van Wijngaarden and Duncan's results, the course of this disease is different in older women (that is, the preinvasive phase is very short), then continuation of screening beyond age 50 may be appropriate. It is interesting to note from figures 2 and 3 in their paper that incident (as opposed to prevalent) cases of grade III cervical intraepithelial neoplasia per 100 000 smears showed the smallest fall with age.

We await studies of the findings of the Dundee group with interest. In the meantime, the suggestion to stop cervical smearing at 50 should be treated with caution.

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1 Van Wijngaarden WJ, Duncan ID. Rationale for stopping cervical screening in women over 50. *BMJ* 1993;306:967-71. (10 April.)

2 Lamont DW, Symonds RP, Brodie MM, Nwabine NJ, Gillis CR. Age, socio-economic status and survival from cancer of cervix in the west of Scotland 1980-87. *Br J Cancer* 1993;67:351-7.

Health inequalities and births to single mothers

EDITOR,—Ken Judge and Michaela Benzeval highlight the increase in mortality in children aged 1-15 in England and Wales whose parents are classified as "unoccupied," and estimate that almost nine in 10 of such children are from families with an economically inactive lone mother.¹ The purpose of this letter is to focus on the differences between selected antenatal, perinatal, and neonatal outcomes for single women (and their children) and those of the remaining women (married, separated, widowed, or divorced).

The data analysed were drawn from 514 193 routinely completed maternal and neonatal discharge records for births in Scotland during 1980-7 (Scottish morbidity records, forms SMR2 and SMR11²). Of these births, 11% were to women described as "never married." Previous work examining differences between hospitals in terms of perinatal deaths and caesarean sections involved fitting multiple logistic regression models considering a variety of social, demographic, and obstetric variables.³ Such work has since been repeated for antenatal admissions and special care baby unit admissions.

The table shows the adjusted odds ratios for the

Adjusted odds ratios of selected outcomes for single mothers

Outcome	Subgroup	Odds ratio (95% confidence interval)
Stillbirth	Gestation > 36 weeks	1.42 (1.20 to 1.68)
Death in first week	All women	0.77 (0.67 to 0.88)
Caesarean section (presentation not breech)*	All women	0.88 (0.85 to 0.92)
Antenatal admission	Maternal age 20-34	1.23 (1.20 to 1.27)
Admission to special care baby unit (> 48 hours)	Gestation > 36 weeks	1.31 (1.25 to 1.37)

*No significant effect when presentation was breech.

five outcomes that were found to be influenced by marital status. In certain cases the odds ratios refer only to subgroups of single women and such categories are stated in the table; for example, an increase in the odds of stillbirth was noted only among the single women for whom gestation exceeded 36 completed weeks. Of all the outcomes considered, social class was seen to have an effect on antenatal admissions only after the other variables had been taken into consideration; the odds of a single woman in the 20-34 year age range having an antenatal admission over all other women of the same social class was 1.23. In addition to this, the social class gradient noted meant that the odds of admission increased with decreasing social class—the odds ratio was 1.96 (95% confidence interval 1.88 to 2.03) for the admission of any woman whose social class was unknown, missing, or inadequately described over a woman of social class I. The fact that social class does not influence the other models is thought likely to be due to variations in the prevalence of the adverse factors included.¹

When adjusted the odds of dying in the first week among the children of single women are decreased, even though the crude rate is slightly higher (5.17/1000 live births in single women as opposed to 4.05/1000 among all other women); once the effects of parity, the uptake of antenatal care, histories of spontaneous abortion and perinatal death, and length of gestation have been allowed for, the children of single mothers are at decreased risk of death in the first week. However, this fails to compensate for the increase in the odds of stillbirth among single women whose pregnancies reach term. The other outcomes considered reflect both policy and morbidity, and the interpretation of the associated odds ratios is therefore not straightforward. The conclusion, however, is that the disadvantages suffered by the children of single mothers date back to the neonatal period and, indeed, to the pregnancy itself. Such disadvantages seem to be in addition to those experienced by the "underclass" of people who do not have an occupation.

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1 Judge K, Benzeval M. Health inequalities: new concerns about the children of single mothers. *BMJ* 1993;306:677-80. (13 March.)

2 Cole SK. Scottish maternity and neonatal records. In: Chalmers I, Mellwaine GM, eds. *Perinatal audit and surveillance*. London: Royal College of Obstetricians and Gynaecologists, 1980:39-51.

3 Leyland AH, Pritchard CW, McLoone P, Boddy FA. Measures of performance in Scottish maternity hospitals. *BMJ* 1991; 303:389-93.

Hepatitis A vaccination for health care workers

EDITOR,—We agree with the issues raised in the paper on hepatitis A vaccination for sewage workers.¹ Referring to the low risk of infection with hepatitis A virus that the authors calculated for carers for people with learning disabilities, we would like to add recent data on this infection risk among health care workers.

The precautions taken in a hospital to avoid transmission of infectious diseases should be

theoretically enough to interrupt the spread of hepatitis A. Practically, close patient contacts, difficulties in maintaining hygienic working conditions, and faecal incontinence in paediatric services or in homes for elderly can put the average health care worker at a higher risk of infection with hepatitis A virus.²

A cross sectional seroepidemiological study, undertaken in 1992 in one paediatric and two general hospitals in the Antwerp area of Belgium, found a higher occupational risk to health care workers in paediatric units than in general hospitals. The prevalence of hepatitis A was significantly different in the two populations: 56% (120/215) were positive for antibody to hepatitis A virus in the children's hospital, compared to 31% (84/231) in the general hospitals (odds ratio 2.91; 95% confidence interval 1.84 to 4.35).

The mean ages were respectively 38.7 years in paediatric hospitals and 34 years in general hospitals; the mean years of activity were 13.6 and 10.7 years, respectively. Age standardised analysis showed that for each age group the prevalence of hepatitis A virus was higher in the paediatric than in the general hospital population (age adjusted odds ratio 1.92; 1.20 to 3.12). Standardisation by number of years of activity had the same results (odds ratio adjusted for years of activity 2.61; 1.65 to 4.15).

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1 Poole CJM. Should sewage workers and carers for people with learning disabilities be vaccinated for hepatitis A? *BMJ* 1993;306:1102. (24 April.)

2 Drusin LM, Sohmer M, Groshen SL, Spiritos MD, Senterfit LB, Christenson WV. Nosocomial hepatitis A infection in a paediatric intensive care unit. *Arch Dis Child* 1987;62:690-5.

Care for mentally ill in Italy

EDITOR,—In his article on community care for the mentally ill in Italy, Chris Endean promotes a misleading image of Italy as a country of political, scientific, and cultural instability.¹ I feel it is important to deny this implication and clarify this controversial topic.

Law 180 of 1978 has been and still is an important law. It was the first to establish that mentally ill people must be cured, not secluded; that mental hospitals must cease to exist as places of seclusion; and that mentally ill people must be given civil rights and integrated into the life of the community. The law does not state that mental illness is caused by society, nor that secluded patients should be "put out on the streets or sent back to reluctant families." On the contrary, it grants mental patients the right to receive the best attention and care possible.

In many regions of Italy the law has transformed the performance and regulation of local community psychiatric services, including compulsory health treatment. In some areas, however, political and administrative inertia and corporate interests initially boycotted the law and caused protests and negative reactions.

Several new parliamentary bills confirm the