

distress is important. It is hard to explain this trend, especially in the case of deliveries without fetal distress, although we found a similar trend with assisted vaginal vertex deliveries for fetal distress.⁴ The anxiety for the patient generated by the decision for caesarean section may provoke increased maternal catecholamine release that initially causes reduced perfusion of the placental bed and gas exchange, with temporary fetal acidosis. Cord pH values may not be a reliable assessment of fetal or neonatal wellbeing nor a good predictor of long term neurological outcome⁵ but we question the benefit and wisdom of aiming to achieve delivery in all cases within 30 minutes.

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Comparison of breastfeeding rates in Scotland in 1990-1 and 1997-8

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In 1994 the Committee on Medical Aspects of Food Policy recommended that mothers should be encouraged and supported to breast feed for at least four months.¹ This has been adopted as policy in Scotland, and a target was set by the Scottish Office in 1994: "50% still breastfeeding at 6 weeks postnatal age by 2005."² Breastfeeding rates in Scotland reported for 1990-1 used information gathered on inborn errors screening (Guthrie) cards at 7 days' postnatal age and covered 99.8% of babies.³ This paper considers the increase in breastfeeding rates over an eight year period in Scotland to 1997-8, with correction for demographic changes in maternal age, as older women are more likely to choose to breast feed.⁴

Methods and results

Information on breast feeding, hospital of birth, and health board has been collected on Guthrie cards in

Scotland since the National Inborn Errors Screening Programme was established in 1964. All information is transferred to a computer database in one Glasgow laboratory. Postcode information has been available since 1990 and maternal age since 1995. Since 1990, breastfeeding rates have been reported to maternity units and health boards throughout Scotland.

During 1990-1, 131 759 babies were born in Scotland,³ and 118 055 babies were born in 1997-8 (total births 118 647 (Information and Statistics Division Scotland, Common Services Agency, Edinburgh)). The number of infants who were breast fed and the number who were bottle fed were determined for each postcode area (table). Confidence intervals were calculated for the difference in the proportion of breastfed babies between the two periods.

In Scotland, breast feeding at 7 days of age has increased by 6.4% (95% confidence interval 6.0 to 6.8) from 35.6% in 1990-1 to 42.0% in 1997-8. The largest

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Numbers (percentages) of babies born in each postcode area of Scotland in 1990-1 and 1997-8 who were breast fed, taken from information recorded on Guthrie cards

Postcode area	Breast fed/total 1990-91	Breast fed/total 1997-98	Percentage difference (95% CI)
EH (Edinburgh*)	8751/22 381 (39.1)	9557/18 905 (50.6)	11.5 (10 to 12)
KW (Kirkwall, Orkney)	456/1044 (43.7)	544/1010 (53.9)	10.2 (5.9 to 14)
PH (Perth*)	1657/3486 (47.5)	1883/3270 (57.6)	10.1 (7.7 to 12)
KA (Kilmarnock, Ayrshire)	2911/10 028 (29.0)	3192/8510 (37.5)	8.5 (7.1 to 9.9)
G (Glasgow*)	8852/32 476 (27.3)	10 291/28 937 (35.6)	8.3 (7.6 to 9.0)
FK (Falkirk*)	1951/6425 (30.4)	2249/5996 (37.5)	7.1 (5.4 to 8.8)
PA (Paisley, Renfrewshire)	2994/9096 (32.9)	2966/7461 (39.8)	6.9 (5.4 to 8.4)
ML (Motherwell, Lanarkshire)	1836/8719 (21.1)	2371/8797 (27.0)	5.9 (4.6 to 7.2)
TD (Galashiels, Selkirkshire)	864/1900 (45.5)	951/1873 (50.8)	5.3 (1.1 to 8.5)
DD (Dundee*)	2698/6920 (39.0)	2754/6264 (44.0)	5.0 (3.3 to 6.7)
IV (Inverness*)	2660/5456 (48.8)	2656/5029 (52.8)	4.0 (2.1 to 5.9)
DG (Dumfries*)	1396/3482 (40.1)	1369/3180 (43.1)	3.0 (0.6 to 5.4)
KY (Kirkcaldy, Fife)	3681/8654 (42.5)	3496/7697 (45.4)	2.9 (1.4 to 4.4)
ZE (Lerwick, Shetland)	376/636 (59.1)	301/553 (54.4)	-4.7 (-10.3 to 0.9)
AB (Aberdeen*)	5866/11 056 (53.1)	5035/10 573 (47.6)	-5.5 (-6.8 to -4.2)
All Scotland	46 949/131 759 (35.6)	49 615/118 055 (42.0)	6.4 (6.0 to 6.8)

*Includes surrounding areas.

increase (11.5%) was seen in Edinburgh and the largest decrease (5.5%) in Aberdeen.

Because maternal age has increased, from a mean of 26 in 1990 to 29 in 1998,⁵ we corrected for this variable. Breastfeeding rates were calculated in one year steps of maternal age for 1997-8. The maternal age distribution for 1990-1 was taken from the annual report of the registrar general, and breastfeeding rates for maternal age for 1997-8 were substituted into the maternal age distribution for 1990-1. The breastfeeding rate for Scotland would have been 39.4% in 1997-8 if the maternal age distribution had been the same as in 1990-1. Therefore, 2.6% of the observed 6.4% rise in breast feeding can be explained by increase in maternal age.

Comment

In the eight years from 1990-1 to 1997-8, the breastfeeding rate in Scotland has increased by 6.4% from 35.6% to 42.0% at 7 days of age. Some of this increase (estimate 2.6%) may be due to an increase in maternal age. Maternity units and health boards should be congratulated on their achievements and encouraged to increase support for breast feeding. Some areas had a large increase, and two areas—Aberdeen and Shetland—showed a decrease. A more detailed analysis by maternity unit, documenting attempts to promote breast feeding, such as participa-

tion in the Baby Friendly Hospital Initiative, may allow the effectiveness of health promotion campaigns to be assessed.

The target of 50% breast feeding at 6 weeks of age by 2005 will not be met unless further health promotion measures are implemented quickly.² The breastfeeding rate dropped by 10% between 7 days and 6 weeks of age in Scotland in 1995,⁴ and it seems unlikely that the breastfeeding rate at 7 days will reach 50% in the eight years from 1998 to the end of 2005; at its present rate of change, without further change in maternal age, it will reach only 45.8% (42.0% + (6.4% - 2.6%)).

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Analysis of trends in premature mortality by Labour voting in the 1997 general election

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Mortality relates to voting patterns within areas: mortality is higher the greater the proportion of the electorate who vote Labour or abstain and the converse is the case with regard to the percentage of the electorate who vote Conservative.¹ This reflects the socioeconomic characteristics of individuals who vote for these parties, with Labour being identified with the working class and the Conservatives with the middle class. In the 1997 election, Labour was returned to office after 18 years in opposition. The government has released targets for reducing health inequalities and made it clear that such a reduction is a principal policy aim.² These targets may be difficult to meet for two reasons. Firstly, factors influencing inequalities in adult health act from an early age onwards and may not respond rapidly to social change³; secondly, there has as yet been no reduction in social inequality (as indexed by income inequality) under the Labour government.⁴ Here we use premature mortality as an indicator of which population groups have fared best under the present government.

Methods and results

The mortality data are from the Office for National Statistics' digital records of all deaths in England and

Wales and the equivalent records from the General Register Office for Scotland.¹ The full postcode of the usual residence of the deceased was used to assign each death to one of the 641 parliamentary constituencies to reflect where the deceased usually lived. The death data were provided for single years. Standardised mortality ratios and direct standardised mortality for the age range 0-64 years were calculated using rates for England and Wales.

Because there was no census at the end of the 1990s, population by age group and sex must be estimated. The Office for National Statistics and the General Register Office produced mid-year population estimates for 1999 and earlier years at the local and unitary authority district levels. To maintain a geographical base consistent with previous studies of Britain's health gap, these district level estimates were interpolated to the electoral ward level and then aggregated to parliamentary constituencies. The interpolation was based on population estimates for 1996, which were available at electoral ward level, and was carried out such that for each age-sex group $W_{1999} = W_{1996} + P_{1996} \times (D_{1999} - D_{1996})$, where W and D are the ward and district level population, P is the proportion of D resident in W , and the subscript is the year. The district level population for 1996-9 for each age-sex