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# Unintended pregnancies and the use of contraception: changes from 1984 to 1989

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The recent parliamentary debate on time limits for abortion has highlighted the high number of unwanted pregnancies in England and Wales and the adequacy of family planning services.<sup>1</sup> I report a postal survey of recent mothers in 1989, who were asked whether their pregnancy had been intended and about the use of birth control at conception. The results were compared with those from a similar postal survey from 1984.<sup>2</sup>

## Subjects, methods, and results

Twenty areas in England and Wales were chosen with probability proportional to the number of births. In each area a random sample of 100 births registered during one month was selected. Mothers were sent a questionnaire six months after the birth and 76% replied after two reminders. (The response rate in 1984 was 79%.) Tests for differences between proportions and  $\chi^2$  test for trends were used in the analyses. Differences at the 5% level were considered significant.

The proportion of women who had an unintended pregnancy increased from  $26 \cdot 7\%$  (398/1490) in 1984 to  $31 \cdot 3\%$  (464/1483) in 1989, but similar proportions of these mothers in both periods ( $70 \cdot 5\%$  (327/464) in 1989 and  $69 \cdot 1\%$  (271/392) in 1984) were using some method of birth control when they became pregnant.

The table shows that in 1984 and 1989 the mothers who had unintended pregnancies were mainly single, young, or those who already had two or more children.

### Details of mothers who had unintended pregnancies

		No (%) who had unintended pregnancies	
		1984	1989
All mothers		398/1490 (26.7)	464/1483 (31.3)**
Marital state+:		ζ, γ	
Single		55/74 (74-3)	68/97 (70·1)
Divorced, separated, or widowed		12/27 (44-4)	22/41 (53.7)
Living as married		45/124 (36-3)	90/200 (45-0)
Married during pregnancy		49/89 (55-1)	48/107 (44-9)
Married at conception		229/1162 (19.7)	227/1014 (22.4)
Age‡:	•	· · ·	
(1984)	(1989)		
<21	<20	82/160 (51-3)	29/51 (56-9)
21-	20-	120/438 (27-4)	151/340 (44-4)***
26-	25-	96/503 (19-1)	128/481 (26-6)**
31-	30-	64/271 (23-6)	107/422 (25.4)
>35	>34	30/92 (32.6)	46/183 (25-1)
No of previous l	iveborn children:		
0		175/635 (27.6)	215/667 (32.2)
1		92/539 (17.1)	110/493 (22-3)*
2		90/231 (39.0)	89/212 (42·0)
≥3		41/84 (48.8)	44/98 (44-9)
Age finished ful	l time education:		
ັ≤16		279/964 (28.9)	273/799 (34·2)*
17		44/195 (22.6)	73/230 (31-7)*
18		33/119 (27.7)	63/195 (32.3)
≥19		37/204 (18.1)	51/252 (20.2)
Housing tenure	:		
Owned by mo	other or husband/partner,		
or both		207/959 (21.6)	242/993 (24·4)
Rented from local authority		128/364 (35.2)	124/289 (42.9)*
Rented from private landlord		27/74 (36.5)	38/89 (42.7)
Other		34/89 (38.2)	56/105 (53-3)*

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001

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<sup>†</sup>Marital state at the time of the survey was used. A few mothers changed marital state between conception and the survey.

Age groups were not identical for both studies but adjustment for this did not affect the significance of the differences.

Owner occupiers and mothers who had completed full time education after the age of 18 were less likely to have unintended pregnancies. From 1984 to 1989 the proportion of mothers under 30 who had unintended pregnancies rose from  $27\cdot1\%$  (298/1101) to  $35\cdot3\%$ (308/872). This was mainly due to the increase in unintended pregnancies among 20-24 year olds.

Among mothers who had unintended pregnancies, as in 1984, the use of birth control at conception increased with age, from 37.9% (11/29) of teenagers to 87.0% (40/46) of mothers aged 35 or more ( $\chi^2=14.6$ , df=1, p<0.001). The range in 1984 was from 39.0% (32/82) to 70.0% (21/30) (18.3, <0.001). In contrast to teenagers, 66.2% (100/151) of mothers aged 20-24 and 76.6% (98/128) of those aged 25-29 used birth control.

Fewer mothers were using the contraceptive pill at time of conception in 1989 than in 1984 (10.4% (155/ 1486) v 12.9% (192/1485)) but among these mothers there was an increase in the proportion with unintended pregnancies from 47.9% (92/192) to 68.2% (105/154). This was related to age. In 1989, 81.0% (47/58) of 20-24 year olds and 68.9% (31/45) of 25-29 year olds who took the contraceptive pill had unintended pregnancies compared with 47.8% (43/90) and 44.7% (21/47) respectively in 1984.

## Comment

Among recent mothers the number of unintended pregnancies has risen over the past five years. Although teenagers are still the most likely to have unintended pregnancies, the increase since 1984 was in the proportion of mothers in their twenties who did not intend to become pregnant, particularly those aged 20-24. Lack of contraception accounts for most of the teenagers' unintended pregnancies, but many of the mothers in their twenties report using the contraceptive pill at conception. There may be many "first time" users of the contraceptive pill in this age group who are unfamiliar with the directions for use. The increase in unintended pregnancies among women using the contraceptive pill may be due to developments in oral contraceptives. For some women the newer contraceptive pills are only just sufficient for efficacy, and errors of compliance are common.3 Other research suggests that some women are not aware of the lowered efficacy of the combined contraceptive pill after a gastrointestinal upset or while taking antibiotics.4 Counselling and detailed explanation of particular methods of birth control is time consuming but essential.

This study gives a limited picture as the sample was confined to women whose pregnancies resulted in live births. Nevertheless, the high number of unintended pregnancies indicates that there are gaps in knowledge about birth control even among users.

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- 3 Guillebaud J. Contraception. Your questions answered. Edinburgh: Churchill Livingstone, 1985.

4 Griffiths M. Contraceptive practices and contraceptive failures among women requesting termination of pregnancy. British Journal of Family Planning 1990;16:16-8.

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