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Family Planning in Britain



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Foreword

Arguments in favour of family planning or 'birth control' can be advanced on the basis of one (or both) of two major premises. First, it may be held that overpopulation is the major problem facing the world today. Second, it may be held that family planning is justified primarily in terms of improvement in the quality of life of individuals and families who are able to use modern contraceptive techniques to choose for themselves if and when they want a child. Incidental to this is any saving to public funds that would follow from preventing unwanted births.

This paper has confined its attention to Britain alone because a review of the world situation would have been wholly inappropriate to a paper of this length. In doing so it has concentrated mainly on the latter 'quality of family life' approach. This is, once again, because the issues involved in defining an 'optimum population' for Britain in objective terms are beyond the scope of a comparatively brief paper such as this. Furthermore, any attempt to forecast the effect of more widespread contraception on fertility rates in an advanced country is fraught with difficulties and on past evidence of population projections is almost certain to be wrong. It is only in the developing countries that the case for family planning rests most obviously on the need for population control.

On the other hand there are real and tangible benefits in Britain to families and the taxpayer from the prevention of unwanted births which can be described if not always quantified. If decisions on further public involvement in family planning are to be taken in the near future, this paper assumes it must be these considerations which will form the platform for action.

The first part of the report is devoted to a general survey of the work done in the various departments of the Government during the year. It is followed by a detailed account of the work done in each of the departments, and a summary of the results achieved.

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Family Planning~ a historical note

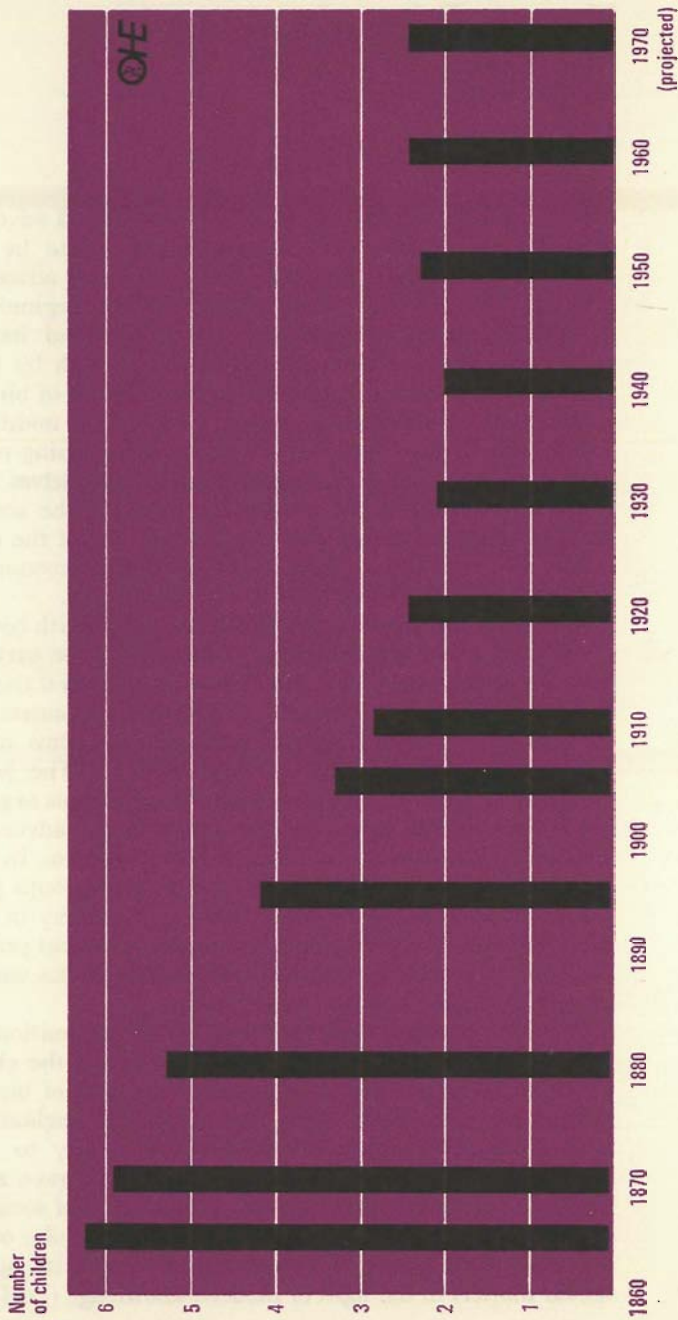
It was from the original efforts of a few dedicated advocates that family planning, or birth control, has come to be generally accepted by the British public. Among the first advocates were Thomas Malthus and Francis Place at the beginning of the nineteenth century. However, until the second half of that century its use was extremely limited, although by the 1870s, according to Wood and Suitters (1970), the use of birth control methods was widespread among the upper middle classes. Among this group there was probably an increasing recognition that economic and social ambitions for themselves and their families could be better realised by limiting the size of their families. Figure 1 shows that the average size of the completed family fell from 6.2 in 1865 to 2.0 during the economic slump of the 1930s. It has since risen to 2.4 in the 1960s.

Credit for the spread of the deliberate use of birth control must go largely to two organisations active during the early years of the twentieth century; the Malthusian League and the organisation formed by Marie Stopes, the Society for Constructive Birth Control and Racial Progress. Although the aims of the two groups were similar, their ideology differed. The Malthusian League concentrated on overpopulation arguments to gain public acceptance for the issue, whereas Marie Stopes advocated birth control to improve the quality of life of women. In the more liberal climate after the first world war both groups prospered. Marie Stopes opened her first clinic in Holloway in 1921, the Malthusian league following the example later that year. During the later years of the twenties birth control clinics were opened by several organisations in many towns.

Public acceptance was hindered by the opposition of many influential groups, including some members of the church and of the medical profession. However, advocates of birth control were much encouraged when, at a Church of England Congress in 1921, Lord Dawson, Physician in Ordinary to the King, argued that birth control was a necessity. He gave a reasoned defence of artificial birth control on medical and social grounds and especially, in the light of its effect on the family, on personal grounds. He challenged the church to revise its opinions on sexual matters in the light of modern knowledge (Peel and Potts

Figure 1 Average completed family size (1865-1970)

Source Registrar General



1969). However, it was not until 1930 that the Church of England, at the Lambeth Conference of Bishops, withdrew their moral objections to birth control and passed a resolution in support of it.

The many voluntary birth control organisations put a resolution to the Minister of Health in 1930 asking him to 'recognise the desirability of making available medical information on birth control to married women who need it'. The outcome was a memorandum from the Minister empowering local authorities to provide advice to limited classes of women on strictly medical grounds. Within a year of the memorandum 36 local authorities set up their own clinics but inexperience among the medical staffs meant that many women were simply referred to the voluntary organisations. (Peel and Potts 1969). In 1930 the National Birth Control Council was formed, its function being to co-ordinate the work of the five remaining voluntary birth control organizations. Opposition to the new organization was by this time able to use a new argument. The birth rate had fallen so far that the prospect of a declining population seemed a real possibility, with its attendant threat to national security and economic strength. In 1939 the National Birth Control Council was renamed the Family Planning Association, thus reflecting a change in emphasis from a concern about the problem of overpopulation to concern for the quality of life.

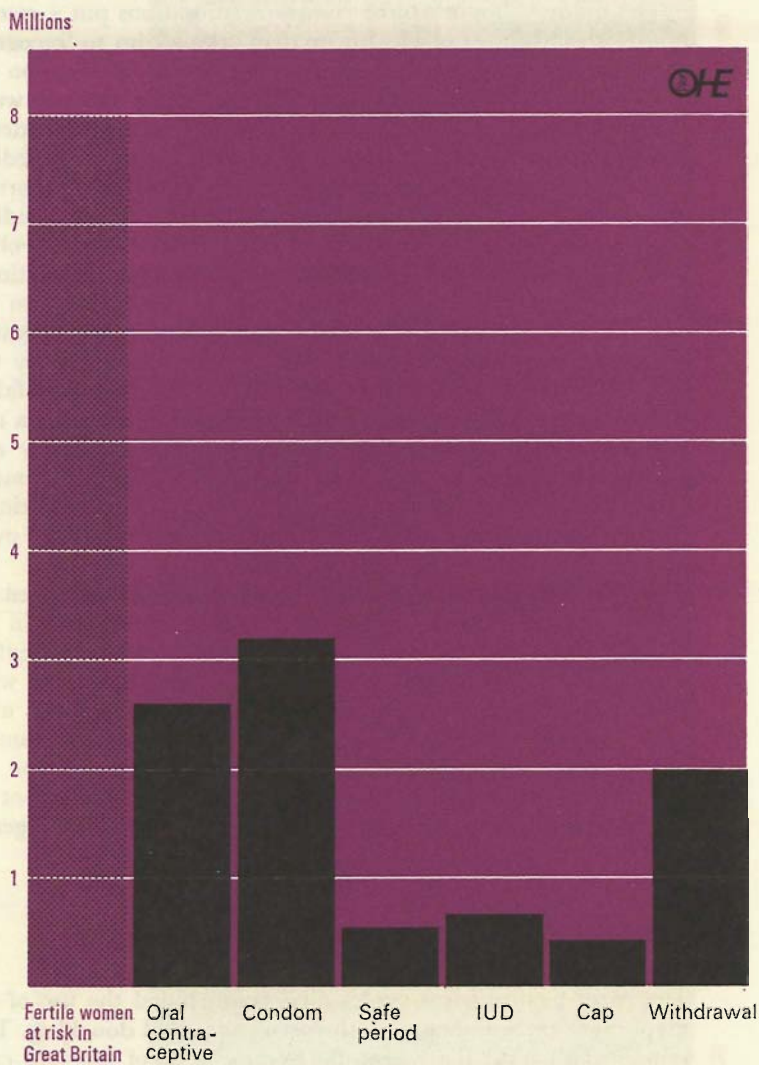
By the end of the second world war there had still been no further governmental recognition of family planning and in the post-war years the FPA resumed leadership in the movement to get it accepted as a vital contribution to the health and well-being of individuals throughout Britain. But it was not until 1967 that the Family Planning Act gave local government significant responsibilities for family planning services for the first time. Even so, authorities remained largely dependent on existing clinics, such as those of the FPA, acting as their agents.

Contraceptive methods

The early birth control clinics all recommended the use of the diaphragm in conjunction with spermicides and douching. This remained so until the more effective methods of the oral contraceptive and the recently improved intra-uterine device (IUD) were introduced into family planning clinics during the last ten years.

Figure 2 shows estimates of contemporary usage by type of

Figure 2 *Contraceptive methods in use among women at risk. Estimates, UK 1970.*



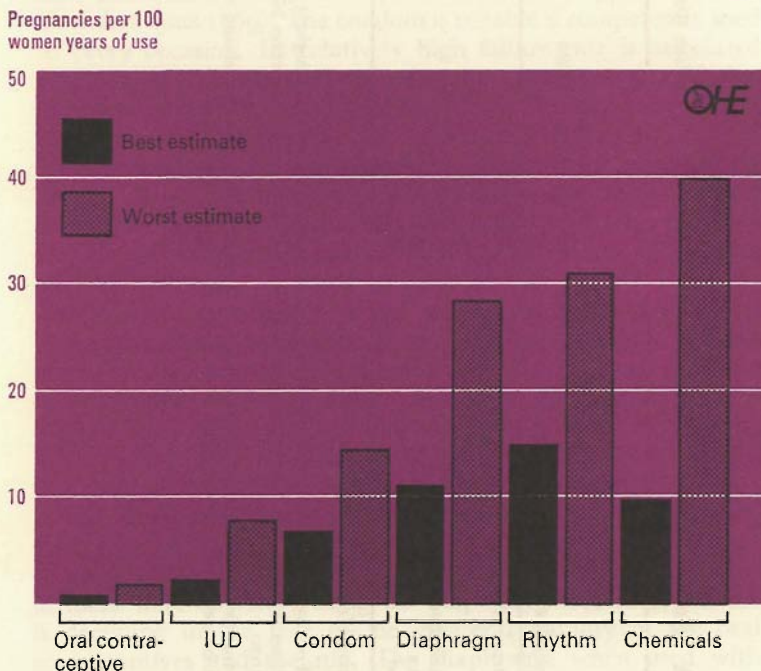
Source OHE estimates from various sources.

Note The sum of women using each method is greater than the number of women using any method because some use more than one method concurrently.

contraceptive. In 1970, there were just over 10 million women aged 15-44. The vast majority of potentially fertile women are within this age bracket. Of these, at any one time, perhaps one million will be pregnant or trying to become pregnant. An estimated one million will be sub-fertile or infertile or married to a sub-fertile or infertile partner¹. Some will not put themselves at risk, in that they have no sexual relationships and others will be opposed to contraception on moral or religious grounds. Of the remainder it is estimated that only about 2½ million women were receiving medical advice on contraception in 1970, including an estimated 650,000 who consulted the family planning clinics of the Family Planning Association.

The estimated failure rates of the main methods of contraception are shown in Figure 3. These represent failure rates in use, not the rates that might be expected if the methods were always used competently and conscientiously. However, efficacy is not

Figure 3 *Failure rates of contraception methods*



Source Peel and Potts (1969)

¹ An estimated total of 5 per cent of the female population (aged 15-44) and 5 per cent of the male population (aged over 15) are sub-fertile or infertile.

Table A Estimated maternal mortality rates per year among 1 million woman using alternative methods of birth control

Birth control method	Failure rate per 100 women years of use	Expected pregnancies per year among 1 million users	Women of all ages, annual deaths due to:		
			Pregnancy (assuming maternal mortality of .20 per 1000 births)	Method	Total
Oral Contraceptive	1	10,000	3	20	23
IUD	5	50,000	13	Not known	Not known
Condom	10	100,000	26	—	26
Coitus Interruptus	17	170,000	44	—	44
Diaphragm	20	200,000	52	—	52
Safe period	23	230,000	60	—	60

Source: Derived from Peel and Potts (1969).

Notes 1 For case of illustration failure rates are based on the mean of the highest and lowest estimates shown in figure 3.

2 The maternal mortality rate in England and Wales fell from .26 per 1000 births (the figure used in this compilation) to .19 per 1000 births in 1970.

3 Following the withdrawal of many brands of oral contraceptives containing oestrogen, the risk of mortality among oral contraceptive users must be assumed to be less than when this table was first published.

the only factor to be considered. All methods have their own advantages and disadvantages including a risk of mortality associated with either the method or with pregnancies due to its failures. Table A shows the comparative mortality rates attributed to the various methods of birth control.

The *condom*, the most frequently used form of contraceptive (Cartwright 1970), has always been mainly outside the sphere of clinical advice. About 32 per cent of all condoms are sold through chemists, about 28 per cent through barbers' shops and 10 per cent through surgical stores. Some 2 per cent are sold through FPA clinics, 7 per cent by mail order and the remainder are sold through various outlets including vending machines. It seems probable that more than 2 million couples are currently using the condom. The usage rates for the condom have not declined as much as might have been expected with the advent of the oral contraceptive and the IUD. In the United States oral contraceptive users have been recruited from the ranks of the condom users, but this is not so in Britain, where they seem to have been recruited from the spermicide or non-appliance users. (Peel and Potts 1969). The condom is reliable if competently used on every occasion. Its relatively high failure rate is associated with 'taking a chance' and not using it on some occasions. It has no side-effects harmful to health but is relatively expensive if used often.

Coitus interruptus, or withdrawal, is also widely practised in Britain.¹ It is estimated that 2 million couples rely on this method. Recently its use has been less criticised than that of other methods on physical and psychological grounds and practice of withdrawal may be spreading. A study in 1959 of 750 patients from the Birmingham FPA clinic who did not return for further advice or prescriptions showed that 91 per cent had changed from the diaphragm to some other method and of these 58 per cent had chosen withdrawal. The failure rate of *coitus interruptus* as a method of birth control is impossible to estimate accurately. It is assumed to be higher than that of spermicidals which is shown in Figure 3.

The *diaphragm* (or cap) still has many advocates, especially among the women who attend family planning clinics. A recent FPA survey among 13,000 of its patients found that 22.5 per cent of them were currently using the diaphragm. However, its use is declining in the face of the greater reliability of the oral contraceptives and the IUD. The diaphragm when used with

1 Peel and Potts (1969) conclude that this method is widely practised without apparent harm and with considerable success.

spermicidals is reasonably cheap to use, but is found by many to be objectionable. This may be the reason for the relatively high failure rate shown in Figure 3. It is clear from the same figure that chemicals, or spermicidals, are unreliable when used alone.

The 'safe period' or rhythm method has also declined in popularity since the introduction of the oral contraceptive and the IUD. Peel and Potts (1969) estimated that 7 per cent of potentially fertile couples in Britain were using the rhythm method. The safe period has a high failure rate because of the unpredictability of the female menstrual cycle. Of all methods the 'safe period' interferes most with sexual spontaneity because the degree of premeditation involved is greater than that of any other method. As with other methods the incidence of failure depends on the intelligence and motivation of the couple concerned.

The *intra-uterine device* had fallen into disuse at the end of the second world war and was not revived until the American Population Council spent over \$1 million, between 1959 and 1962, developing the polyethelene devices of today. Its use is increasing at present, although it remains much less popular than the oral contraceptive.

The *oral contraceptive*, taken properly, means the virtual elimination of the unplanned pregnancy. Research for an oral contraceptive started in the 1920s and in 1934 Corner and Beard established the structure of one of the ovarian hormones – progesterone. However, it was not until 1951 that Pincus and Rock tested the first oral contraceptive which was synthesised in the laboratory of a pharmaceutical company. It was a further ten years before the first brand of the 'combined' type of oral contraceptive was marketed in Britain. Other brands followed rapidly and by 1965 there was a wide variety of choice, including the newer 'sequential'¹ and 'continuous'² types. Figure 3 shows the growth in the usage of oral contraceptives in the UK (1965–71)³. The latest assessment indicates that 1.8 million women, or 18 per cent of all women in the fertile age group, were using this

1 First marketed in 1963, the 'sequential' oral contraceptive varies the daily doses of synthetic hormones to counter the daily change in the balance of female hormones. Many brands contained high dosages of oestrogen and were withdrawn following the announcement of the Committee on Safety of Drugs (1969) that high-oestrogen oral contraceptives were not to be recommended.

2 The 'continuous' oral contraceptive is a low dosage progestogen-only oral contraceptive.

3 The diagram on pages 20–21 indicates quite clearly the affects of the statements made by the Committee on Safety of Drugs (the Scowen Committee) during 1969 and the later announcement in December the same year stating that only oral contraceptives containing the smaller dosage of oestrogen should normally be prescribed. It is almost impossible to accurately assess the number of women who stopped taking oral contraceptives as a result of the statements, but estimates vary between 15–20 per cent.

method at the end of 1971. Only condoms and withdrawal are used by more couples. Another indication of its popularity is that 58 per cent of new patients at FPA clinics choose oral contraception in preference to all other methods.

However, there are two main reasons why the 'pill' is not the perfect contraceptive. First, it demands a certain amount of memory and intelligence to take the tablets as instructed. The risk of pregnancy rises with the number missed in every cycle. (Peel and Potts 1969). Second, it has several side effects. These can be split into serious and less serious disorders. Table A shows that the possibility of death occurring from the use of oral contraceptives is greater than from any other pre-coital precaution. However, this is compensated by a reduced risk of mortality from pregnancy. Hence, the possibility of mortality resulting from either the method or from pregnancies due to failures is probably lower for the oral contraceptive than for any other method. However, since the figures are susceptible to change, no precise quantitative comparisons are possible. The risk of mortality from pregnancy itself has fallen from 26 deaths per 100,000 births in 1966 to 19 deaths per 100,000 births in 1970. On the other hand the withdrawal of the high oestrogen oral contraceptives after the report of the committee on the safety of drugs in 1969 must have substantially reduced the risk of mortality to the average pill-taker. The only reasonable conclusion to be drawn is that as far as premature mortality among women is concerned there is little to choose between oral contraceptives and the safest of other methods.

To date, scientifically acceptable evidence has indicated a connection between oral contraceptives and pulmonary embolism and cerebral thrombosis. Table B shows the relevant figures. The overall mortality attributed to oral contraceptives has been calculated as 1.3 per 100,000 per annum in the 20-34 age group and 3.4 in the 35-44 age group. There are reasons for thinking that these figures may have underestimated the total death rate and if, in addition, the relationship between coronary thrombosis and the oral contraceptive were substantiated the figures would be 2.2 and 4.5 respectively (Peel and Potts 1969). On the other hand the withdrawal of high oestrogen oral contraceptives should have considerably reduced risks. The less serious side effects are shown in Table C. The difference between the highest and lowest figures is caused partly by differing degrees of knowledge about the side-effects of the oral contraceptives. Those women who know little or nothing about the possible side-effects report least complaints whereas those knowing most about possible complications report most complaints (Peel and

Table B *Excess deaths in women taking oral contraceptives*

<i>Cause of death (patients with no predisposing condition)</i>	<i>Deaths</i>	<i>Number using oral contraceptives</i>		<i>Statistical significance</i>
		<i>Actual</i>	<i>Predicted</i>	
Pulmonary embolism	26	16	4.2	P < 0.001
Coronary thrombosis	84	18	11.4	P = 0.06
Cerebral thrombosis	10	5	1.5	P < 0.01

Source Derived from W H W Inman & M P Vessey, *Br Med J.* 1968, 2, 193-199 and M P Vessey and R Doll, *Br Med J.* 1968, 2, 199-205.

Table C *Range of incidence of side effects reported by different authors for the same preparation of oral contraceptive (Anovlar)*

	<i>Lowest %</i>	<i>Highest %</i>
First cycle nausea	1.2	24
Breast discomfort	1.8	13
Weight gain (3 lb)	1.5	54
Spotting	3.0	17
Breakthrough bleeding	2.1	5.2
Amenorrhoea	0.8	3.6

Source Peel and Potts (1969).

Potts 1969). There is still much doubt about the proportion of side effects which are pharmacological consequences of the contraceptives themselves, as opposed to those which are essentially psychosomatic. Unfortunately, a controlled trial to find the answers would in practice be virtually impossible to carry out.

The publicity given to the long-term health hazards of oral contraceptives must be placed in perspective. Sir Norman Jeffcoate in 1970 commented that 'except in the case of those women known to be at special risk, and provided proper medical supervision is maintained, the advantages of the contraceptive pill far outweigh its potential for harm'.

Sterilization is the least common precoital precaution of all. Most often it is the female who is sterilized. However, demand for male vasectomy has risen in recent years as a result of more facilities becoming available. But there are still few resources available for vasectomy on the NHS, so most operations are carried out by private clinics. The FPA performed about 1,700 vasectomies in 1970 and in the first half of 1971, 1,830 operations were carried out. The Marie Stopes clinics performed 2,000 during 1970-71. Vasectomy could have great possibilities

as an efficient means of family planning provided it became acceptable to the general public. Both men and women in Britain are more in favour of female than of male sterilization (Cartwright 1970), an operation which is longer, more complicated and requires an expensive hospital bed; but this may be merely an expression of its longer history and greater availability. Attitudes can change rapidly. However, the potential usefulness of sterilisation as a method of birth control is limited because for both males and females it is only recommended if the couple concerned are sure their family is complete.

A very small number of failures have occurred in both vasectomy and tubal ligation, due to severed organs knitting back together again. Deaths and failures following female sterilization are of the same order of magnitude as those involved in the use of oral contraceptives. Sterilization is probably more effective than oral contraception only because of carelessness or incompetence among oral contraceptive users. In practice, however, sterilization is usually performed too late in life to have its maximum effect in preventing unwanted or unplanned pregnancies. While the operation remains irreversible this is unlikely to change since there is always the possibility that individuals might in the future wish to have another child.

Current use of family planning services

The Victorian attitude towards sex and related subjects persisted well into the twentieth century, but during the last decade public discussion about family planning has become far more common. It has been easier to talk about an oral contraceptive than about the intimacies of other methods of family limitation, and this in its turn has probably influenced the public's knowledge of other forms of contraception. Cartwright (1970) found that 99 per cent of the women interviewed had heard of the 'pill', and 97 per cent of the sheath and withdrawal; 90 per cent knew of the diaphragm and 80 per cent knew of the existence of the intra-uterine device. However, despite the undoubted increase in knowledge, 56 per cent of the women interviewed felt that they did not know enough about contraceptive methods in general. Only half knew enough about the IUD to recall any advantages or disadvantages. Two-thirds claimed adequate knowledge of the diaphragm, four-fifths of the safe period and nine-tenths of the sheath and oral

Table D *Family planning advice offered to women in maternity hospitals*

	<i>CA mothers</i> %	<i>Non-CA mothers:</i> <i>Southern county</i> %	<i>Non-CA mothers:</i> <i>Midland city</i> %
No advice offered	59	56	43
Not offered advice, then asking for it	37	32	14

Source 'Which', June 1971.
(CA stands for 'Consumers Association')

contraceptives. Most women's ideas on the reliability of the various contraceptive methods were realistic. Four-fifths classed oral contraception as either the best or the second-best method for efficiency. Attitudes to different methods, however, vary greatly as do preferences and it is unlikely that a single method will meet all needs.

Attitudes to contraception in general seem to be consistent with its use. Couples who disapprove of contraception tend to be among the lower socio-economic groups with large families.¹ These people tend to justify their large families by disapproval of family limitation methods. Conversely, more privileged couples tend to deplore the economic and social disadvantages of uncontrolled family size and are, in fact, more efficient contraceptors. Cartwright, not surprisingly, established that Roman Catholic parents were much less likely to approve of birth control than other parents, but even so more than half the Catholics interviewed approved of birth control in general and only 14 per cent were definitely against it.

There are four possible sources of professional family planning advice for any woman or couple. First and least common is the maternity hospital. Table D shows that some hospitals offer free advice to all mothers who have just given birth, as an integral part of the maternity service; many, however, offer little or no advice. Second, and only slightly more common than advice in hospital, is advice from local authority health visitors. Health visitors call on most women in their areas who have recently given birth. They have contact with many of the 'problem' cases, the poor, the illiterate, and mothers with large families. The main work of health visitors is concerned with the health of mothers and new-born and pre-school children but most health visitors accept that giving family planning advice is part of their job, even

¹ In Britain, as in most societies, the lower socio-economic groups have higher birth rates than the national average.

though, like general practitioners, many think they do not know enough about the subject. Cartwright discovered that health visitors felt a lack of knowledge about oral contraceptives and the IUD, the two methods about which they received the most enquiries. Only a minority of women interviewed in Cartwright's survey had received any advice from their health visitor. Less than half of those with seven or more children, and only a fifth of the mothers who had been visited more than five times by the health visitor had discussed family planning with her. The same survey also found a lack of co-ordination between health visitors, general practitioners and family planning clinics.

The third source of professional advice, general practitioners, is the most common of all. Even so, there is much confusion among general practitioners themselves about the role they should play in the field of family planning. Cartwright (1970) found that, in general, general practitioners gave advice on contraceptive methods only when asked. They tended not to take the initiative themselves in broaching the subject with their patients. This may reflect a lack of time or perhaps a failure to appreciate the reluctance of many women to raise the matter themselves. Many women, however, may not want to discuss contraception with their general practitioner. They may prefer the anonymity of a hospital or family planning clinic or else rely on methods suggested to them by friends or relatives. This could be especially true for unmarried women. Many women are also unwilling to discuss contraception with a man. Since the great majority of general practitioners are male, this could be a barrier to seeking medical advice.

In Cartwright's survey, general practitioners stated that most enquiries they received were about the most publicized form of birth control, the oral contraceptive. Doctors tended to restrict their contraceptive advice to this method, often with no physical examination prior to giving the prescription. Cartwright discovered that women who had an examination before taking a course of oral contraceptives were happier with their contraceptives than those who received no such examination. Despite the adverse publicity given to oral contraceptives on the grounds of potential health hazards, doctors often made no attempt to alleviate worries. According to Cartwright, 44 per cent of general practitioners thought they would like to know more about family planning but in practice it does not receive high priority. It is estimated that in 1968, of the 23,000 general practitioners in the United Kingdom, only 3,000 had received any formal training in reproductive endocrinology.

Finally, the family planning clinics are the other important

source of professional advice on birth control. Most of these are run by the FPA, although some local authorities, hospitals and other voluntary organisations do run clinics of their own. These clinics provide a much more comprehensive, if less accessible, overall service than general practice. The FPA employs 1,350 doctors, 1,600 nurses and 8,000 voluntary non-medical workers. All the doctors and nurses have had some training in the field of family limitation and can also give advice to sub-fecund women. In 1970 it was estimated that 650,000 women, 250,000 of them new patients, attended FPA clinics. There is more likelihood of a diaphragm or an IUD being fitted in the clinic than in the general practitioner's surgery. Women always receive a full physical examination at FPA clinics before an oral contraceptive is prescribed and it tends to be prescribed for shorter periods (2 months on average as compared to the general practitioner's 6 months), thus encouraging women to return quickly to discuss their satisfaction with this method and any adverse reactions they may have experienced.

Middle class women are more likely to attend a family planning clinic than working class women. Cartwright's sample survey found that 34 per cent of the middle class women interviewed had attended a clinic whereas the figure for lower class women was only 18 per cent. It appears, then, that family planning clinics are more attractive to middle than to lower socio-economic groups. This may be due to the inconvenience of attending a clinic. Women may have to travel long distances, since clinics are few and far between and many clinics are only open for short periods and have long waiting times. (Thirty-eight per cent of the women in Cartwright's survey who had been to a clinic said they had to wait an hour or longer.) Middle class women generally have fewer children and may therefore be able to find more time and opportunity to attend the clinic than working class mothers.

There are few differences between middle and working class women in their views and assessments of different methods of contraception, but middle-class women are more efficient users of all methods. The reasons for this are difficult to assess. It may be that they place a higher value on controlling their lives effectively. Religion could also be a factor. But the main reason why the middle classes are more successful at contraception seems to be that professional advice is in effect more easily available for middle-class women and they are better motivated to go out and take advantage of it. For example, areas with high proportions of social classes iv and v have fewer family planning clinics and fewer clinic sessions per head of population than areas with

lower proportions. Thus contraceptive services of this type are especially scarce where they are most needed.

The FPA clinics are largely dependent on charges to patients as a source of income. Prior to the Family Planning Act of 1967, doctors under the NHS could provide free advice to any women who requested it, but free contraceptive supplies could only be prescribed for those who required them on medical grounds. A charge had to be made if the supplies were needed for 'social' reasons. The Act removed this distinction, but only in the field of local authority provision: the general practitioner and the hospital services must still decide which are medical and which are social reasons. By avoiding the term 'married women' the Act allowed local authorities to provide advice and supplies to single women. It also enabled attention to be drawn to those local authorities which failed to take advantage of the provisions of the Act.

The effects of the Act are, as yet, hard to gauge. There has been a significant increase in the number of FPA clinics, from 613 just prior to the Act to 1,023 by 1971. In 1970, they held 115,000 doctor sessions. In many areas the local authorities have provided the building and part of the running costs of the clinic while the Family Planning Association has provided the doctors and nurses. Although, in 1969, the FPA decided not to limit their services to married women, many local authorities will not refund the FPA with the cost of treating unmarried women. In addition, 71 of the 232 local authorities run their own clinics with their own staff and there are about 40 private family planning clinics run by various organizations such as the Marie Stopes', Wiseman and Brook clinics. In at least one case an FPA clinic is provided with facilities in a factory complex as part of a firm's overall welfare scheme.

Abortion facilities should also be mentioned here, if only because the abortion rate gives a rough indication of the adequacy of the contraceptive services. Before the Abortion Act (1967), which came into operation in April 1968, abortions did not have to be recorded, so there is considerable confusion about the extent not only of criminal abortions but also of NHS and private abortions. Since the Act data have been collected on legal abortions. In the last six months of 1968, 24,000 were performed. In 1969 this increased to 55,000 and in 1970 to 87,000. By the third quarter of 1971, abortions were running at an annual rate of 140,000. The proportion performed in NHS hospitals as opposed to private nursing homes has fallen from 61 per cent in 1968-69 to 55 per cent in 1970.

The current moral and ethical controversy surrounding

Sales of oral contraceptives in the UK

Source IMS monthly 000's wallets

A Dunlop statement on thrombosis and the Pill

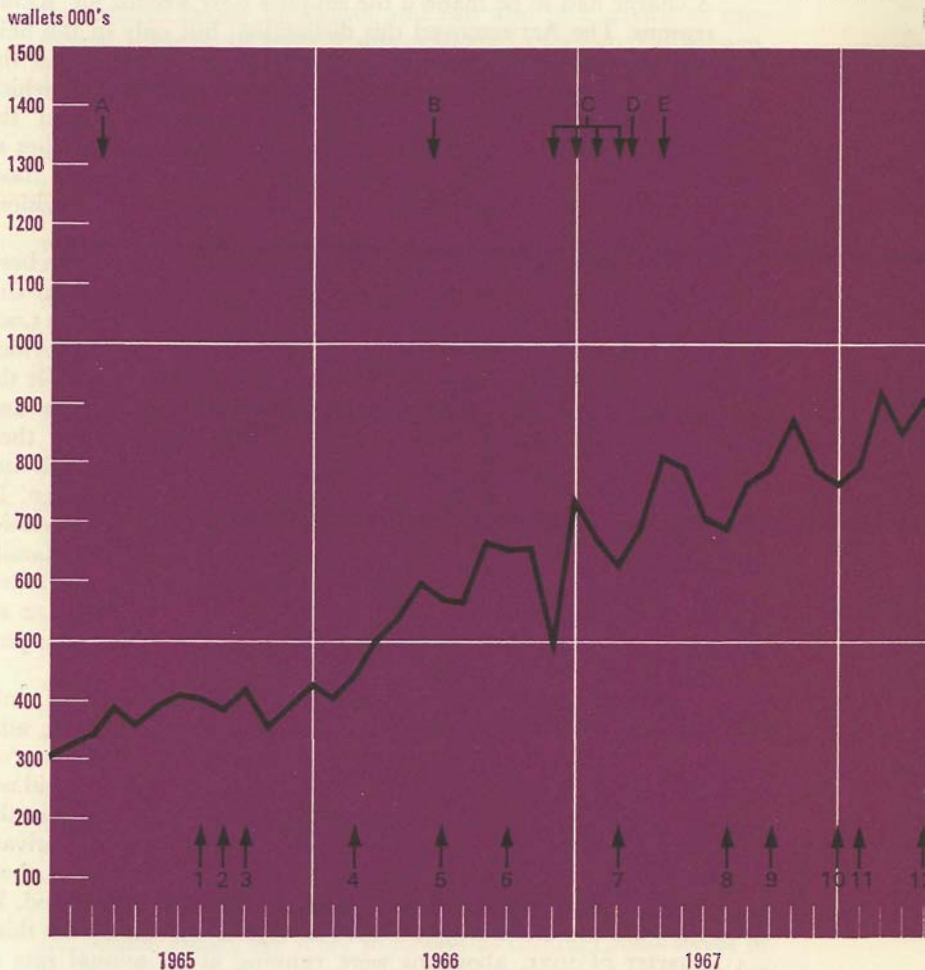
B Statement by CSD on liver damage in rats

C Press reports of deaths of women OC users

D Minister of Health's statement on thrombosis and the Pill

E Platt Comm BMJ

F Imman, Ve Reports on ass OCs and throm



- 1 Anovlar 21
2 Ovulen 21
3 Lyndiol 2.5mg
4 Serial 28

- 5 Norinyl - 1
6 Norlestrin 21
7 Orthonovin SQ
8 Nuvacon

- 9 Norolen
10 { Orthonovin 1/80
{ C-Quens 21
11 Minovlar

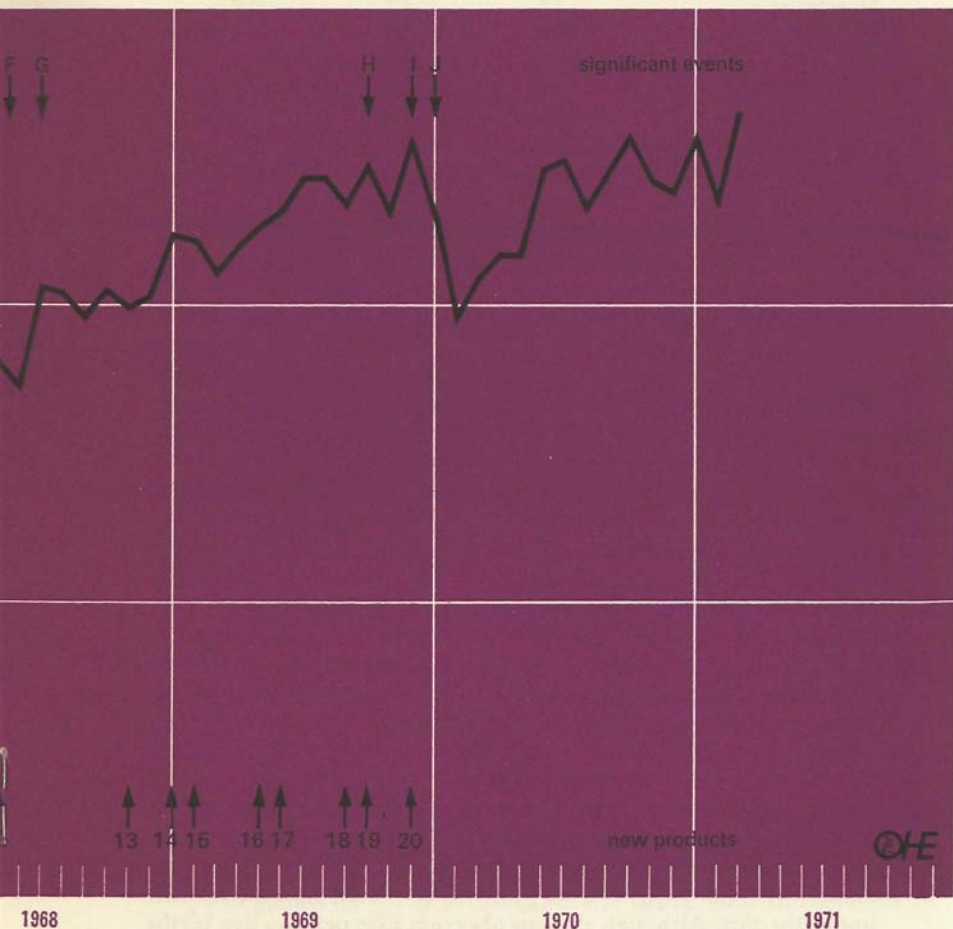
Committee Report in
 Hays and Doll
 Association between
 thromboembolism

G Pope's Encyclical
 on birth control

H Walsall inquest

I CSD announcement re
 high dosage Oestrogen

J Minipills withdrawn
 Normenon and Verton



- 12** Feminor 21
- 13** Demulen 0.5mg
- 14** Minovlar ED
- 15** Orlest 28

- 16** Normenon
- 17** Ovanon
- 18** Verton
- 19** Orthonovin 0.5mg

- 20** { Ovulen 50
- Demulen 50
- Minilyn
- Orthonovin 1/50

O/E

Table E *Inter Regional variations in abortion rates*

<i>Hospital region</i>	<i>NHS abortion rate/100 livebirths</i>		
	<i>1968 (2nd half)</i>	<i>1969</i>	<i>1970</i>
London and Home Counties	4.0	6.0	8.2
Newcastle	4.0	5.7	8.6
Wales	3.0	5.1	7.3
South West	2.4	4.5	6.5
Manchester	2.7	4.3	5.8
East Anglia	3.3	4.3	6.1
Scotland	2.5	3.9	5.7
Oxford	2.6	3.6	5.2
Wessex	2.1	3.0	4.6
Leeds	1.6	2.8	3.7
Liverpool	1.3	2.4	3.6
Sheffield	1.3	2.4	3.9
Birmingham	1.5	2.2	2.6
Britain	2.6	4.2	5.7

Source Abortion Law Reform Association 1970.

abortion is far greater than that surrounding contraception and it seems unlikely that abortion will come to be regarded in Britain as a primary means of birth prevention as it is in some countries, for instance Japan. In the first three months of pregnancy, termination can be made safer than normal child birth and new methods can reduce the trauma involved, but after three months the risks of infection and mortality rise. Since existing regulations in Britain can cause long delays, a radical revision of the law surrounding abortion would probably be necessary before abortion could be considered as a feasible alternative to contraception. Even then, abortion – at least as it is performed at present – must be psychologically unacceptable as a first line of defence. The social implications of the moral and ethical controversy are projected in sharp relief by the wide variations between individual doctors and between regions in providing abortions. Table E shows that the number of NHS abortions per 100 live births varies greatly from 2.6 in the Birmingham region to 8.6 in the Newcastle region. Almost half the terminations for women resident in Birmingham had to be carried out in private clinics, whereas 96 per cent of those in Newcastle were performed under the NHS. Although the NHS abortion rate per 100 live births is rising in all areas, the 'league table' positions (Table E) have changed little since 1968. The abortion rate for any area will depend on the extent of facilities for abortion within that particular area, as shown by the high rate for London and the Home

Counties where abundant facilities, both NHS and private, are available. A large number of abortions are performed on temporary residents¹ who come to London purely for the operation. However, the abortion rate also depends on the attitude of the doctors approached and there is no doubt that it is more difficult to arrange for an abortion under the NHS in some areas than it is in others.

Population growth

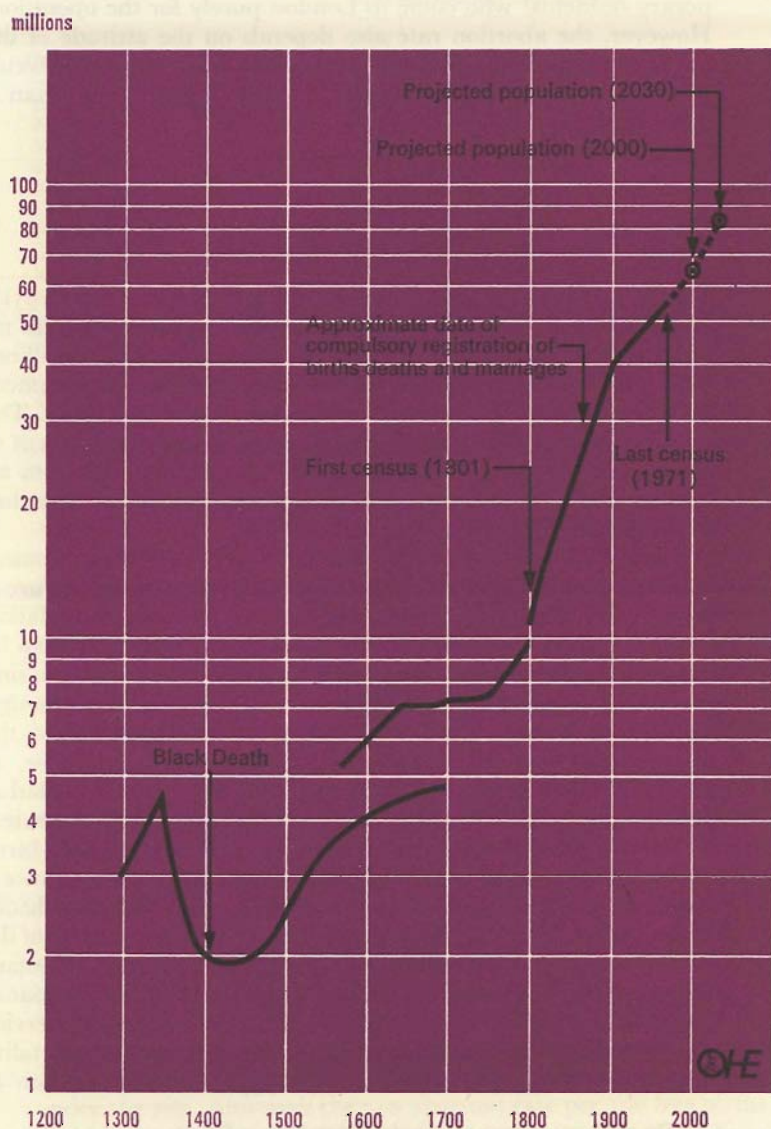
Figure 4 shows the growth of the UK population (1300–1971). At the time of the Norman conquest the population of the UK was less than two million. In 1971 the total stood at 55.3 million. This growth occurred slowly at first in an agrarian environment with the natural set-backs of war, famine and pestilence. The worst of these was the Black Death when nearly 40 per cent of the population died. It was not until the development from an agricultural to an industrialised society was well under way that rapid growth occurred.

Population growth, at any time, when it is not due to immigration, is caused by an excess of births over deaths. Figure 5 shows crude birth and crude death rates per thousand population (1840–1970). The fall in the crude death rate since 1850 can be attributed to improved nutrition and sanitation, better housing and working conditions and improved medical care. Even though the rate of decrease has slowed during the last three decades the crude death rate still influences population size. However, as Figure 5 shows, the key factor determining the rate of population growth at any one time has been the variation in the birth rate.

There are many interrelated factors which influence the birth rate. One is the reduction in infant mortality. The more chance a woman has of bearing a child who will survive to reach adulthood, the fewer times she will tend to conceive.² From the middle of the nineteenth to the beginning of the twentieth centuries the infant mortality rate in Britain remained steady at 150 per thousand. Improved hygiene, the introduction of the midwifery service and better pre- and post-natal care brought the infant mortality rate down to 53 per thousand by 1939. The introduction of

1 The majority of these are resident elsewhere in Britain.

2 An early Victorian mother may have conceived six times in order to ensure that three of her children reached adulthood, (ignoring spontaneous abortions). A modern mother usually need only conceive three times to have the same number of children reach adulthood.

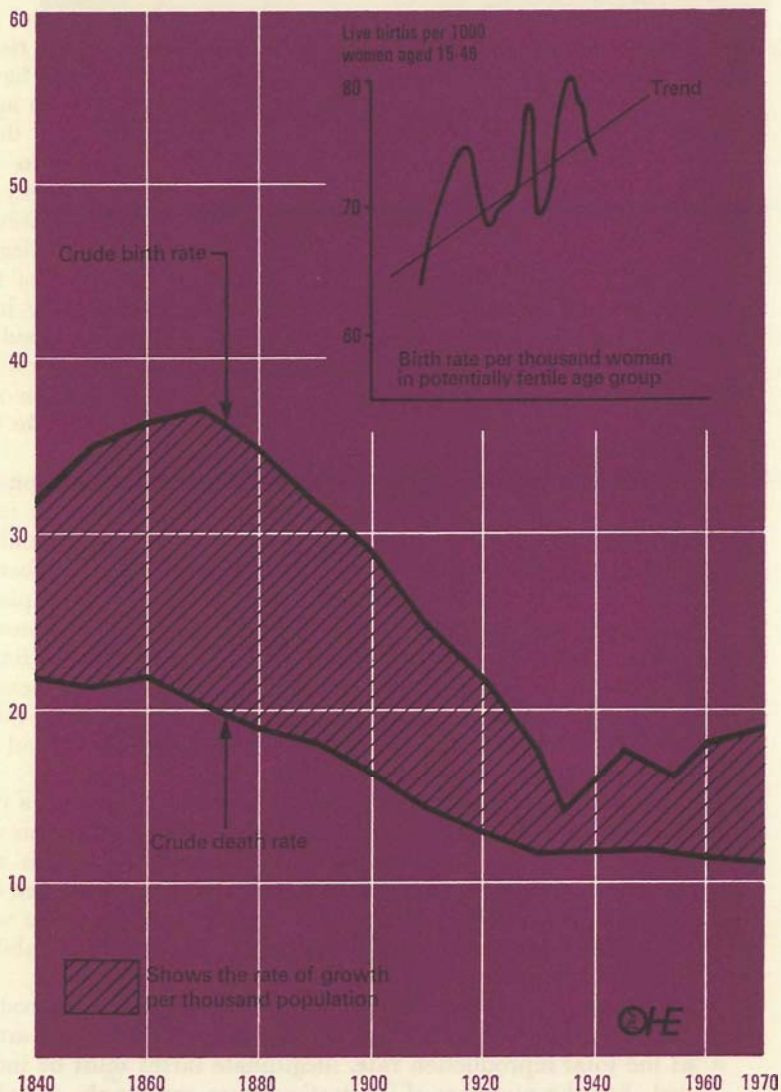
Figure 4 *The population of the United Kingdom (c. 1300–2030)*

Source J H Thompson (1969) *The Growth Phenomenon* in 'The Optimum Population of Britain' (edit. L R Taylor).

Note Because of scanty evidence prior to 1801 two series are shown. Both are estimates.

Figure 5 *The rate of growth of the population of England and Wales. (1840-1970). The inset shows yearly rate per 1000 fertile women, 1940-1970.*

Crude birth and death rates
per 1000 population



Source Annual abstract of statistics. Central statistical office 1970.

sulphonamides and antibiotics in the late 1930s and 1940s has reduced it further to 18 per thousand in 1970.

Second, the birth rate is influenced by the fertility of women in the reproductive age range (conventionally taken as 15-44 years). This in turn is influenced by the proportion of women marrying and by the age of marriage of fertile women. Since 1930 the probability that a woman will marry has risen and the average age of marriage has fallen. This is reflected in the rising crude birth rate since the 1930s (Figure 5). The inset figure shows that the number of live births per thousand women aged 15-44 has also been rising since the 1930s, although there have been distinct cyclical fluctuations. The increase in the total numbers of births in the period since 1945 can mainly be accounted for by an increase of births within marriage. However, an increase in both the number and relative proportion of illegitimate births has also contributed. During the first part of this century the proportion of illegitimate to total births lay in a narrow range around 4.5 per cent. In 1968 the corresponding figure was 8.2 per cent, the number of illegitimate births totalling 78,000. Figures which would show whether the Abortion Act was having its expected effect in reducing illegitimate births are not yet available.

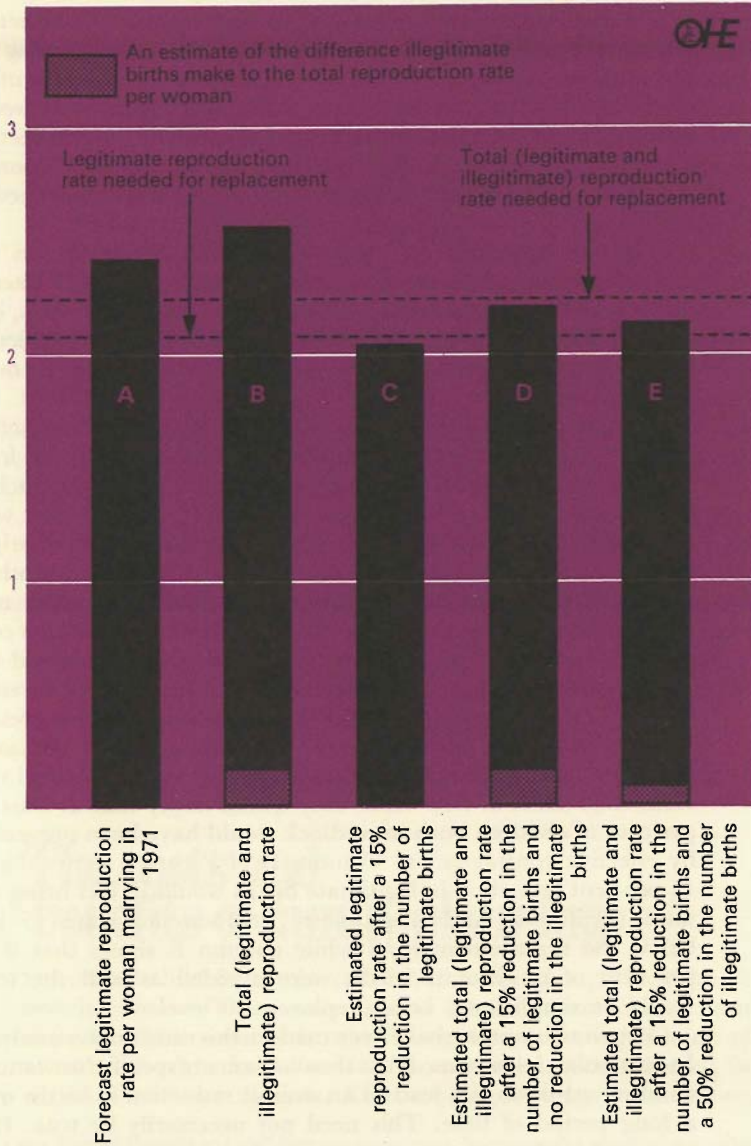
Third, the birth rate is influenced by parents' decisions on the size of their completed family. Figure 1 showed that the mid-Victorian generation was the last to have large surviving families. In the depression period of the 1930s, the average number of children per family dropped to 2.0, a figure below the replacement rate of approximately 2.1. This was the cause of concern at that time over the dangers and disadvantages of a declining population. Since then average family size has climbed steadily to 2.4 in the 1960s. Fourth, the crude birth rate has been influenced by changes in attitude to family planning methods and the increase in their effectiveness and use.

Between 1961 and 1971 the British population grew at a rate of about 0.5 per cent per annum. Figure 5 confirms that this was due to the excess of births over deaths every year. It is also necessary, however, to look at the number of children women can expect to have during their fertile lives and compare this with the number needed to replace the population and thus stabilize it over the long-term.

Column A in Figure 6 shows the forecast legitimate reproduction rate per woman marrying in 1971 as 2.4 children. To arrive at the total reproduction rate, illegitimate births must be included. For the purposes of illustration these are simply added to the rate of 2.4 children per married woman (though strictly the

Figure 6 *Reproduction rates per married woman*

Live births



Source OHE (see also Figure 1).

total ought to be expressed as a reproduction rate per woman at risk). This adjustment increases the rate by 0.15 to reach a total (legitimate and illegitimate) reproduction rate of 2.55 children per married woman, column B.

The two broken lines show, for comparison, the reproduction rates needed ultimately to stabilise the population. Allowing for the number of people who do not get married and the number of children who do not survive to reproductive age there would need to be an overall (legitimate and illegitimate) reproduction rate of just over 2.2 children per married woman. Therefore a reduction of 0.35 children per woman in the present reproduction rate is necessary to reach replacement level.

While recognising that these calculations are made on the basis of existing fertility rates, which could be radically altered by changes in any one of a number of determining variables, it is nevertheless interesting to speculate on the potential effect of universal contraception in reducing reproduction to replacement level or below.

Without anything more than patchy evidence on the actual effect of comprehensive family planning services, evidence from opinion surveys forms the only quantitative basis for such a calculation. For this reason, conclusions must be treated with considerable reserve. The best data are provided by Cartwright (1970) from interviews with a sample of 1,495 married mothers in England and Wales interviewed in 1967-8 when their new born baby was between four and nine months old. Fifteen per cent of mothers said they would have preferred not to have had the baby at all and 17 per cent said they would have preferred it later. There are very great difficulties in accurately interpreting the significance of such answers. Children who are originally unwanted may eventually be accepted with enthusiasm and vice versa. But taken at face value they would imply that at least 15 per cent of children born in wedlock would have been prevented by effective contraception. Column D of Figure 6 shows that a 15 per cent reduction in legitimate births would in fact bring the total (legitimate and illegitimate) reproduction rate to just below the replacement level while column E shows that if 50 per cent of illegitimate births were avoided as well the total would be significantly below replacement level.

Certain assumptions have been made in this rather naïve analysis. In particular, it is assumed that the avoidance of specific 'unwanted' children would in fact lead to an overall reduction in births over a long period of time. This need not necessarily be true. It is conceivable that in some cases a family which had its children exactly when planned would desire a larger family size overall.

Also, it is assumed that other things, apart from universal contraception, would remain constant. This is unlikely.

There are many factors that influence the rate of population growth and a change in any one of them could accelerate or retard the rate of growth. It is reasonable to assume that crude death rates will continue falling as cures for cardiovascular and neoplastic diseases are found and preventive medicine becomes more widespread. People will probably live longer in the future, although this can only produce a finite increase in the growth of population. There will probably be a slight rise in the proportion of fertile women marrying in the future, but this rise can only be small as 92 per cent already marry before the age of 45. It is also likely that the trend to earlier marriage will continue, but as with the previous factors, this has finite limits as the average age of marriage cannot be expected to fall as low as 15 years. Nevertheless if couples decide they want more children than at present, or have their children closer together and in a shorter period, the population could increase dramatically. It could become more common for five generations of one family to be living and for two generations to be producing children at the same time.

Overall, therefore, the quantitative effect of efficient contraceptive and abortion services on population growth cannot be estimated. There are too many factors at work for predictions to be made with any expectation of reasonable accuracy. The only conclusion that can be drawn is that there are children born every year who are unwanted by their parents and the prevention of these births would undoubtedly slow the present rate of population growth.

The costs and benefits of family planning

Unwanted children can be considered as two groups, illegitimate and legitimate. There were 80,000 illegitimate children¹ born in 1970. Their number is now falling due to the legalisation of abortion though the full effects have not yet been reflected in national statistics to date. The majority are born to women

¹ Not all illegitimate children are unwanted. Some are the result of common law marriages and among West Indian couples it is the custom to have two or three children and then marry.

under 25 years of age and a large proportion came from a lower socio-economic background. In 1967, of the 69,928 illegitimate births recorded, 3,167 were placed in local authority and private institutions. 18,313 were adopted, leaving more than two-thirds to be brought up, fatherless, by their unmarried mothers (Hodder 1971). About half of unmarried mothers rely on supplementary benefits for their upkeep (HMSO 1967a).

Second, there is the group of legitimate unwanted children which Cartwright's (1970) survey suggests amounts to at least 15 per cent of all legitimate births. Included in this group will be many children of 'shot gun' marriages.¹ More than half the children in care of local authorities during 1966-67 were legitimate (HMSO 1967b). One-third were deserted by their mothers, one-fifth were the children of mentally ill or subnormal parents and a quarter were children of parents considered unfit to care for their children (Peel and Potts 1969). Again, only part of the problem is reflected in institutional figures since most unwanted children remain under the care of their own parents. Many, however, are known to social workers because large families are known to suffer more deprivation than smaller families. Cartwright (1970) found that the proportion of births within marriage which were said to be unwanted by their mothers increased from 5 per cent for the second child to 25 per cent for the fourth child to 52 per cent for the sixth child and then levelled off. One-third of homeless families have three or more children and 30 per cent of the 160,000 families with resources below the minimum laid down by the Supplementary Benefits Commission have more than three children. The 1962 National Food Survey showed that families with four or more children had, on average, diets which contained less calcium, protein and calories than the standards recommended by the British Medical Association. Hare and Shaw (1965) found that maternal and to a lesser extent, paternal ill-health increased with family size. Also maternal mortality increases with number of children, regardless of age (Jaffe and Polgar 1964).

The potential benefits from a comprehensive family planning service lie in the prevention of these sometimes disastrous personal, social and economic consequences of the birth of unwanted children. Real and tangible benefits can clearly be derived from raising the quality of life of both parents and children.

The cost of a family planning service covering the whole female population aged 15-44 (excluding one million infertile

¹ About 100,000 births a year are legitimate by reason of marriage after conception. However, the proportion unwanted by their parents cannot be estimated.

or sub-fertile couples and approximately one million who wish to become pregnant at any one time) has been estimated by the Family Planning Association at £40 million a year. However, there are two factors that are likely to increase the size of this estimate. First, in running such a scheme, the NHS would be unable to rely on a proportionate increase in the 8,000 voluntary non-medical workers who at present work on a practically unpaid basis for the FPA. The FPA estimates that their work is worth £1 million per year to them. Second, there is the extra cost of reaching problem families, especially within the lower socio-economic groups, for instance through a domiciliary service run by health visitors.¹ These two factors might raise the cost to nearer £60 million per year. This is, however, a maximum cost; the actual cost would depend on the uptake of the contraceptive services by the general public and to some extent this sum – if it were to be all paid from public funds – would merely represent a transfer of present private and charitable expenditure to the public accounts.

The critical question which arises is whether there would be a net economic gain if the government were to run a well advertised and efficient family planning service. Brook (1968) attempted to evaluate the costs of an unwanted birth by adding together the cost of hospitalisation, maternity allowances and education. He argues that these costs would be saved if an unwanted child was not born. However, the logic of the argument leads to conclusion that the prevention of wanted births would also save money since they incur the same costs of hospitalisation, maternity allowances and education as well. The method of calculating benefits implies that the prevention of all births, whether wanted or not, would be equally worthwhile.

In order to bring the economic justification for public expenditure on family planning onto a sound basis it is necessary to establish that children who are unwanted by their parents cost more public money to bring up than average, or alternatively that they are less able to pay back their debts to society during their productive years.

A recent study (Laing 1972) made an attempt along these lines. It ignored the relative productivity of wanted and unwanted births 16 to 65 years ahead because there were no data at all to base calculations on. Instead it concentrated on the consumption of public health and welfare resources by unwanted children and their families during their dependent years. A search of literature

¹ The cost of a domiciliary contraceptive service probably lies between £13 and £15 per woman per year, compared with the 1971-72 rate of £4.85 for the woman who goes to an FPA clinic.

and official sources found acceptable statistical data which demonstrated that unwanted children were excessively costly in four areas: supplementary benefits, child care facilities, sickness benefits and temporary accommodation for the homeless. Some areas, such as delinquency, had to be ignored because there were no hard data. However, it is likely that most of the major cost items were included in the analysis and in no case were there any data which suggested that unwanted children were less costly than wanted children.

The study equated the potential benefits – or savings in public expenditure – with the difference between the present value of the unwanted child's (and his family's) consumption of health and welfare resources during dependency and the average consumption among all children – in those areas of the health and welfare services where such measurement was possible.

The cost of preventing a birth was estimated at £34 in 1971/2 terms on the assumption that efficient contraception would prevent, on average, one birth every seven years. On this basis it was estimated that the ratio of benefits to cost ranged from 10 to 1 to over 100 to 1 depending on the type of birth prevented and the assumptions made.

The figures least susceptible to error were for the savings from the prevention of illegitimate births and births in large families. For unwanted illegitimate births the benefit/cost ratio came out as 128 to 1 and for unwanted fourth and fifth children, 20 to 1 and 22 to 1 respectively. These must be recognised as no more than order of magnitude figures but they were based on hard data on usage of social services. Most of the savings would be from a reduction in the payment of supplementary benefits. Half of all women bringing up children without a husband and about 10 per cent of all families with a large number of children rely on these benefits.

Policy

Undoubtedly there will be technical improvements in the means of family limitation within the next decade though major breakthroughs from the pharmaceutical industry, such as a male oral contraceptive, seem unlikely to become available in the foreseeable future. One reason must be increasingly stringent regulations and procedures designed to ensure safety, especially those in the United States, and especially in the field of contraceptive agents. The prostaglandins are likely to provide a new product to induce labour in the not too distant future but not a contraceptive agent.

Another possibility for the future, currently being developed in America, relies on the slow intravaginal release of conventional contraceptive hormones for up to a year. This minimises side effects through avoiding systemic treatment. However, the major priority for the National Health Service in the short and medium term must be to ensure that existing effective means of family planning, together with relevant expert advice, should be made more readily accessible to all those who would benefit. In short, the immediate future of family planning lies not with the scientist but with the administrator.

The first step must be to improve existing facilities. Although the situation varies from doctor to doctor and practice to practice there is clearly scope for a better overall contraceptive service from general practitioners. Cartwright (1970) found that one of the primary barriers to an effective family planning service was the unwillingness of many general practitioners to take the initiative in broaching the subject with those of his patients who would welcome advice but who were unlikely to ask for it directly. It would certainly be desirable for doctors to adopt an active preventive approach. However, there are many other competing demands for general practitioners' time and essentially the problem is one of altering individual doctors' priorities.

There are too few family planning clinics and those that do exist are often not in the places where they are most needed. More clinics are needed in the less privileged areas. There is a need for more staff and for longer and more convenient opening hours, particularly if more women from social classes 4 and 5 are to be attracted to them.

Another potential source of advice and contraceptive services is the maternity hospital. If family planning were to be offered in all maternity hospitals, as an integral part of the ante-natal and post-natal care programme, the number of women who have no contact with professional advice would be considerably reduced. Zatuchni (1968) has demonstrated the effectiveness of a hospital based programme for both mothers who were contacted when in hospital and their friends and relatives whom they referred to the programme. At present few maternity hospitals in Britain provide such a service.

Professional advice at present is concentrated almost exclusively on female methods of birth control. Little attention is paid to men because the condom or withdrawal are thought not to need professional advice. However, Peel (1966) found that sheaths and free advice offered by social workers to 50 fathers in an English industrial city led to a reduction in pregnancies from an expected 41 to an actual 2. Also, Cartwright (1970) found that

most couples considered family planning a joint responsibility and many preferred the responsibility for contraception to lie with the male. It may, therefore, often be advantageous to attract couples rather than women alone to the sources of family planning advice.

Domiciliary family planning services are also needed, especially for poorly educated women with large families or any women or couples who will fail to be contacted as long as they are expected to come to the service rather than have the service come to them. There is a good deal of evidence that domiciliary services among problem families can be very effective in reducing fertility. Peberdy (1965) recorded a reduction from 131 pregnancies per hundred women years at the beginning to 24 per hundred at the end of a five year period among 150 couples in Newcastle. Morgan (1965) reported similar results from a programme in Southampton. The local authority health visitor is in a unique position to initiate this sort of service since she already visits women with young children at home. The Family Planning Association as an agent for the local authorities concerned, already runs 35 domiciliary services, 16 of which are in the London area and some local authorities run their own schemes. The potential value of these schemes in practice is illustrated by evidence from Aberdeen where a local authority scheme has been in operation for five years. The crude birth rate in the city has been reduced by one-fifth over the last five years. Even more significant is the fact that the birth rates of social classes 4 and 5, the over forties, the multi-parae and the unmarried have each been reduced by one quarter. Aberdeen has a higher ratio of health visitors to population than almost any other local authority; one per 2,200 population as compared with one per 5,000 in Scotland,¹ as a whole. The experience in Aberdeen suggests that the realisation of the full potential of domiciliary schemes requires more health visitors with better training in family planning than exist in most places in Britain at present. It also emphasises the need for better communication between health visitors and general practitioners, clinics and hospitals if the initial contact is to be successfully followed up.

Finally, abortion provides a potential though less desirable solution to an unwanted pregnancy. The risk of mortality is considerably reduced when the aspiration method is used under a local anaesthetic and this argues for regulations which minimise delay. Abortion is preferable to the birth of an unwanted child in both human and economic terms and there is a strong case for

¹ The comparative figure for England and Wales is one per 6,000 population.

equalising women's chances of having an abortion in different areas of the country. But, again in human and economic terms, contraception is preferable to abortion. While abortion facilities must be more widely accessible they should be regarded as complementary to, and not substitutes for, family planning services.

Most of the improvements suggested involve the National Health Service, and they lead inevitably to a fully comprehensive family planning service with an agency, whether at central or local level, with wide powers to expand and co-ordinate services. It seems logical that such a service should be provided free in order to avoid any possible financial barrier to uptake. It would certainly appear illogical for the National Health Service to demand payment for an effective and cost saving preventive programme while providing many other forms of relatively ineffective curative medicine free. However, price is only one barrier to uptake and the major problem will be providing sufficient facilities at the right time and at the right place to bring services and clients into contact with each other.

But even the provision of sufficient services may not in itself be enough to ensure maximum take up by persons who wish to avoid pregnancy and would benefit from changing their contraceptive behaviour. The experimental saturation of Runcorn and Coalville with family planning services being organised by the FPA with DHSS finance should provide a great deal of information on the acceptability and effectiveness of a programme which attempts to alter behaviour by providing more than enough of everything. However, although there is good evidence that some of the elements in the 'saturation' approach, such as domiciliary services, are very effective, in this case among problem families, there is very little empirically based knowledge on the costs and effectiveness of specific alternative means of achieving widespread use of effective contraception among these problem families and other different groups of people at risk of pregnancy. One of the high priorities for the future must be research in depth to discover the most effective means of altering behaviour in relation to costs so that the approach of family planning services can be more sensitive and selective. For example, it is not known whether or how advertising affects motivation or alters behaviour, and if so among which groups. Clearly, advertising through posters or through the media with the intention of reaching highly fertile problem families would differ markedly from programmes designed to reach young unmarried girls, or the vast majority of married women. Research is needed here and in the many other areas where there are few empirically based guidelines to support subjective contentions

as to the most effective methods of delivering contraception; and if proven to be effective, there is no good reason why any family planning agency of the future should not use advertising or borrow from any of the other techniques of commercial marketing in order to attain its objectives of preventing unwanted births.

The attractiveness of a free and comprehensive family planning service stems largely from the opportunity it provides for everyone to exercise choice as to the number of children they want. It would also reduce public expenditure on the support of social casualties. In addition, the widespread use of effective contraceptive measures would help to reduce the rate of population growth. However, it would be wrong to place a high value on the limitation of births *per se*, whether through voluntary contraception or not. Our knowledge of the social mechanisms involved in sexual behaviour is so inadequate that other forms of direct action to discourage births are likely to be clumsy and unselective and could have far reaching and perhaps unrecognised consequences. In a comprehensive family planning service it is perfectly consistent to discourage the birth of unwanted children and at the same time to help infertile couples who desire a child to realise that ambition.

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