CONTRACEPTIVE SERVICE IN THREE AREAS

PART II. THE EFFECTIVENESS OF CLINIC SERVICES

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INTRODUCTION

MOST birth control services in the United States have fairly uniform policies, regardless of the types of women they serve or the environment from which their patients come. The diaphragm and jelly or some variation of that technique, which involves the combination of a spermicide and an occlusive covering for the cervix, have been almost universally considered the only methods suitable for prescription. In rural areas, where there are no clinics, the choice has been jelly alone or sponge and foam powder; in clinics, where individual fitting is possible, the diaphragm or cervical cap with jelly has been prescribed for almost every patient.

The wisdom of such single-mindedness is open to question. The use of contraception is a highly personal and individual problem and it seems unlikely that a single type of contraception could be acceptable to all couples. Recently completed surveys of three clinics, in New York City; in Cincinnati, Ohio; and in Spartanburg, South Carolina, permit the study of the results of the present restricted policies for widely differing groups of patients.

The characteristics of the patients in each area and their fertility before clinic attendance have been discussed in detail in a previous article.[2] The patients of the three clinics were very different. The women who attended the Birth Control Clinical Research Bureau, in New York City, were mainly foreign-born Jewish women who had shown a special interest in controlling their fertility. Most of them came to the clinic on their own initiative and paid for the

[1] From the Milbank Memorial Fund.

[2] Stix, Regine K.: Contraceptive Service in Three Areas: Part I. The Clinics and Their Patients. The Milbank Memorial Fund *Quarterly*, April, 1941, xix, No. 2, pp. 171-188.

service given them. Almost all of them had used contraception quite effectively for most of their married life before they attended the clinic, but they came to the clinic in the hope of finding more acceptable contraceptive techniques.

In Cincinnati most of the patients were relief recipients or wives of manual workers with small incomes, who were referred for contraceptive advice by social workers or physicians because their families were large and the mothers needed to be spared the burden of additional pregnancies. Almost all of them had made some attempt to use contraception before attending the clinic but their contraceptive practice had not been very effective. Their uncontrolled fertility was lower than that of the New York women but, because they used contraception less extensively as well as less effectively, their total fertility was considerably higher.

The Spartanburg clinic is a referral service in the Spartanburg General Hospital, under the supervision of the County Health Department, which serves both white and Negro women from rural and urban sections of a southern cotton county. Its patients are sent to the clinic mainly because of illness contraindicating further pregnancy. Those referred during the period of study were the wives of urban manual workers, of sharecroppers, and of farm tenants, whose economic status was very low. Their total fertility was high because they married early and used little contraception. Their uncontrolled fertility, however, was lower than that of the women in Cincinnati or New York because of the extensive prevalence of pelvic and endocrine disease, of syphilis, and of pellagra.

The patients of the Spartanburg clinic presented a problem similar to that in Cincinnati, in that there was little use of effective contraception before clinic attendance. The problem was more complex than that in Cincinnati because a much larger proportion of couples had never used any contraception and few of the clinic patients could afford to buy commercial contraceptives. The proportions of urban couples using any contraception before attending

the clinic were significantly higher than those of farm families. Sixty-five per cent of white and 28 per cent of Negro urban couples had made some attempt to use contraception, while only 48 per cent of the white and 19 per cent of the Negro couples employed on farms had ever used any contraceptive technique. Thus, the problem of training patients to the consistent use of contraceptives was especially difficult in Spartanburg where, for most of the women, serious impairment of health made it essential that pregnancy be prevented.

The policies of all three clinics were alike in that an occlusive rubber device, usually a diaphragm, and jelly, to be used by the wife, were prescribed for 90 per cent or more of the patients in each clinic (Table 5). Cervical caps were prescribed for 15 per cent of the New York patients, but were not given to any patients in Spartanburg or in Cincinnati. The clinician in Spartanburg attempted to vary the prescription if the diaphragm was unsuitable for any specific patient, but, because in most cases the patient's health made it imperative that pregnancy be avoided or at least delayed, she was

Table 5. Types of contraception prescribed for the patients of three clinics.

Contraceptive Method Prescribed	White Patients of:			Negro Patients of Spartanburg Maternal Health Clinic
	Clinical Research Bureau (N.Y.C.)	Cincinnati Maternal Health Clinics	Spartanburg Maternal Health Clinic	
	Number of women			
	991	1,609	530	457
	Per cent for whom each method was prescribed			
Diaphragm and Jelly	79.0	98.0	89.6	92.6
Cervical Cap and Jelly	14.7	—	—	—
Condom and Jelly	1.6	—	0.8	0.2
Sponge and Jelly or Powder	2.4	—	1.3	2.6
Jelly Alone	2.2	2.0	0.2	—
Diaphragm and/or Sponge	—	—	4.9	4.4
Diaphragm and/or Condom	—	—	2.8	—
Other	—	—	0.4	0.2

unwilling to prescribe any techniques other than those she considered completely reliable.

Measuring the Effectiveness of Clinic Services

The problem of measuring the impact of clinic attendance on a group of patients is a highly complex one. The process involves not only the measurement of the effectiveness of the prescribed techniques in preventing pregnancy for those women who use them, but also of the acceptability of those techniques for the whole group of patients, since even the best contraceptive can protect only those women who use it. The measurement of acceptability includes ascertaining the proportion of patients who never used the prescribed contraceptives, who used them throughout the survey period, and who used them and then gave them up, and the analysis of the reasons for their rejection on the part of those women who never used them or who abandoned them after a period of trial.

It has been found that clinic patients use all contraception more effectively after they have attended a birth control clinic.[8] Thus, the clinic may be partly responsible for a drop in fertility postclinic, attributable to the better use of contraceptives other than those prescribed. After clinic attendance the fertility of the patients who continue to use contraception can be expected to remain low, therefore, regardless of the types of contraception used. On the other hand, if some of them should abandon the use of contraception entirely, after a period of trial of the prescribed contraceptives, group fertility would be expected first to drop and then to rise. Such a rise might not make itself evident in the brief postclinic period during which the patients are usually under observation. The data must therefore be analyzed with care and interpreted with caution.

The Effectiveness of Clinically Prescribed Contraceptives. In all

[8] Stix, Regine K. and Notestein, Frank W.: Controlled Fertility. Baltimore, The Williams and Wilkins Company, 1940, p. 110, Table 49.

Stix, Regine K.: Birth Control in a Midwestern City. Part II. The Milbank Memorial Fund *Quarterly*, April, 1939, xvii, No. 2, p. 167, Table 22.

three of the areas under consideration, the contraceptives prescribed by the clinics proved highly effective for those patients who used them. Pregnancy rates for all use of the prescribed contraceptives and rates for those periods during which they were used exclusively are shown for the three groups of white and one of Negro patients in Table 6.[4] Variants of the clinic prescription (its alternate use with other contraceptives or no contraception,[5] or the use of only part of the method) were used during part of the postclinic exposure of all groups. The proportion of exposure during which variants were used, however, was small for all clinics; and the inclusion of this experience had little effect on the rates for the clinic prescription.

All rates for the prescribed contraceptives were low, and differences between the rates for the four groups of women were small.[6] The rates of the New York women for all use of the clinic prescription were significantly lower than those for any of the other groups. For periods during which the prescribed contraceptives were used exclusively, however, no difference was highly significant. None of the rates for Negroes was different from the corresponding rate for white women in Spartanburg. Differences might have been greater had there been a larger body of experience, but it appears justifiable to conclude that even for the Negro women the diaphragm and jelly proved highly effective.

[4] The rates shown are those for pregnancies per 100 years' exposure to the risk of pregnancy for each group. The "exposure" of each woman was calculated by deducting time pregnant and all periods of separation of husband and wife from the total number of years between the initial clinic contact and the date of closing the record. Exposures of women with similar experience (as with clinic prescription) were then added and divided into the number of pregnancies occurring in the aggregate experience. The resulting rate was multiplied by 100 for convenience, in order to express it as a whole number. Rates for clinic prescription include the use of all the contraceptives prescribed.

[5] The alternate use of clinic prescription and no contraception was found rarely in New York and Cincinnati, but constituted 6 per cent of the exposure with clinic prescription of Spartanburg white women and 10 per cent of that of the Negro women. This sporadic use of contraception by the Spartanburg group could not be ignored and therefore was included as part of the group practice.

[6] The χ^2 test was used to determine the differences between rates. The test is not ideally suited to the type of data presented, but is the only one applicable. Except for differences noted in the text, all values of p for comparisons of rates shown in Table 6 fell between .03 and .09.

Table 6. Pregnancy rates with clinically prescribed contraceptives for four groups of women.

Period of Married Life	White Patients of: Clinical Research Bureau (N.Y.C.)	Cincinnati Maternal Health Clinics	Spartanburg Maternal Health Clinic	Negro Patients of Spartanburg Maternal Health Clinic
ALL USE OF CLINIC PRESCRIPTION[1]				
PREGNANCIES PER 100 YEARS OF EXPOSURE				
First Pregnancies	8	4	6	—[2]
All Later Pregnancies	9	11	14	16
Years Since Marriage				
0–4	12	16	14	19
5–9	11	10	17	17
10–14	5	10	15	16
15–29	5	11	11	8
EXPOSURE IN YEARS AND NUMBER OF PREGNANCIES				
	Exp. Yrs. / No. Preg.	Exp. Yrs. / No. Preg.	Exp. Yrs. / No. Preg.	Exp. Yrs. / No. Preg.
First Pregnancies	50.8 / 4	118.6 / 5	15.6 / 1	3.0 / 0
All Later Pregnancies	887.1 / 76	2,932.9 / 326	453.0 / 64	358.9 / 56
Years Since Marriage				
0–4	179.4 / 21	460.1 / 73	76.9 / 11	94.8 / 18
5–9	307.3 / 34	1,015.1 / 104	113.0 / 19	111.1 / 19
10–14	253.1 / 13	778.8 / 74	126.0 / 19	79.7 / 13
15–29	147.3 / 8	678.9 / 75	137.1 / 15	73.3 / 6
EXCLUSIVE USE OF CLINIC PRESCRIPTION				
PREGNANCIES PER 100 YEARS OF EXPOSURE				
First Pregnancies	8	3	0	—[2]
All Later Pregnancies	9	9	12	14
Years Since Marriage				
0–4	13	12	13	15
5–9	12	9	14	15
10–14	5	8	12	17
15–29	6	8	11	8
EXPOSURE IN YEARS AND NUMBER OF PREGNANCIES				
	Exp. Yrs. / No. Preg.	Exp. Yrs. / No. Preg.	Exp. Yrs. / No. Preg.	Exp. Yrs. / No. Preg.
First Pregnancies	38.4 / 3	116.1 / 4	11.8 / 0	1.8 / 0
All Later Pregnancies	703.4 / 65	2,703.1 / 244	371.1 / 46	300.2 / 41
Years Since Marriage				
0–4	150.7 / 19	442.7 / 54	60.2 / 8	80.6 / 12
5–9	249.6 / 30	935.7 / 82	94.0 / 13	93.2 / 14
10–14	195.0 / 10	713.6 / 58	109.7 / 13	60.2 / 10
15–29	108.2 / 6	611.1 / 50	107.2 / 12	66.2 / 5

[1] Includes use of variants of the prescribed contraceptives, such as alternate use of CIR and other contraceptives, etc.

[2] Less than ten years of exposure.

All use of the prescribed contraceptives prevented between 80 and 94 per cent of the pregnancies which would have been expected if the clinic patients had used no contraception for an equal period of exposure to the risk of pregnancy (Table 7). The effectiveness ratios were lowest for the Spartanburg women and highest for the New York clinic patients. It is not surprising that the Spartanburg patients were less skillful in using the diaphragm and jelly than the average patient in New York or Cincinnati. The effectiveness with which the clinic prescription was used in Spartanburg was approximately the same as that observed for relief recipients in Cincinnati, who had similar social and economic backgrounds.[7] It is probable that women in both groups were not only handicapped by the conditions under which they lived but were also poorly equipped by education and intelligence to use a complicated contraceptive technique consistently and correctly.

The hazard of accidental pregnancy with the prescribed contraceptives was greatest immediately after the initial clinic contact, and declined, first rapidly, and then gradually until the risk was

Table 7. Per cent of effectiveness of each type of contraception as used by four groups of women after clinic attendance.[1]

Type of Contraception	White Patients of:			Negro Patients of Spartanburg Maternal Health Clinic
	Clinical Research Bureau (N.Y.C.)	Cincinnati Maternal Health Clinics	Spartanburg Maternal Health Clinic	
All Contraception	93[2]	85	81	78
All Use of Clinic Prescription	94	90	81	80
Exclusive Use	93	92	84	83
Use of Variants[3]	96	64	70	68
All Other Contraceptives	91[2]	72	81	55

[1] Ratio of pregnancies prevented to those expected had no contraception been used.
[2] These ratios are slightly higher than those shown in Stix and Notestein, Table 49, because those in Table 49 were standardized to the period-of-married-life distribution of all exposures with contraception postclinic, and those presented here were not so standardized.
[3] Alternate use of ClR and other contraceptives or no contraception, or use of only part of the ClR.

[7] Stix, 1939, p. 167, Table 22.

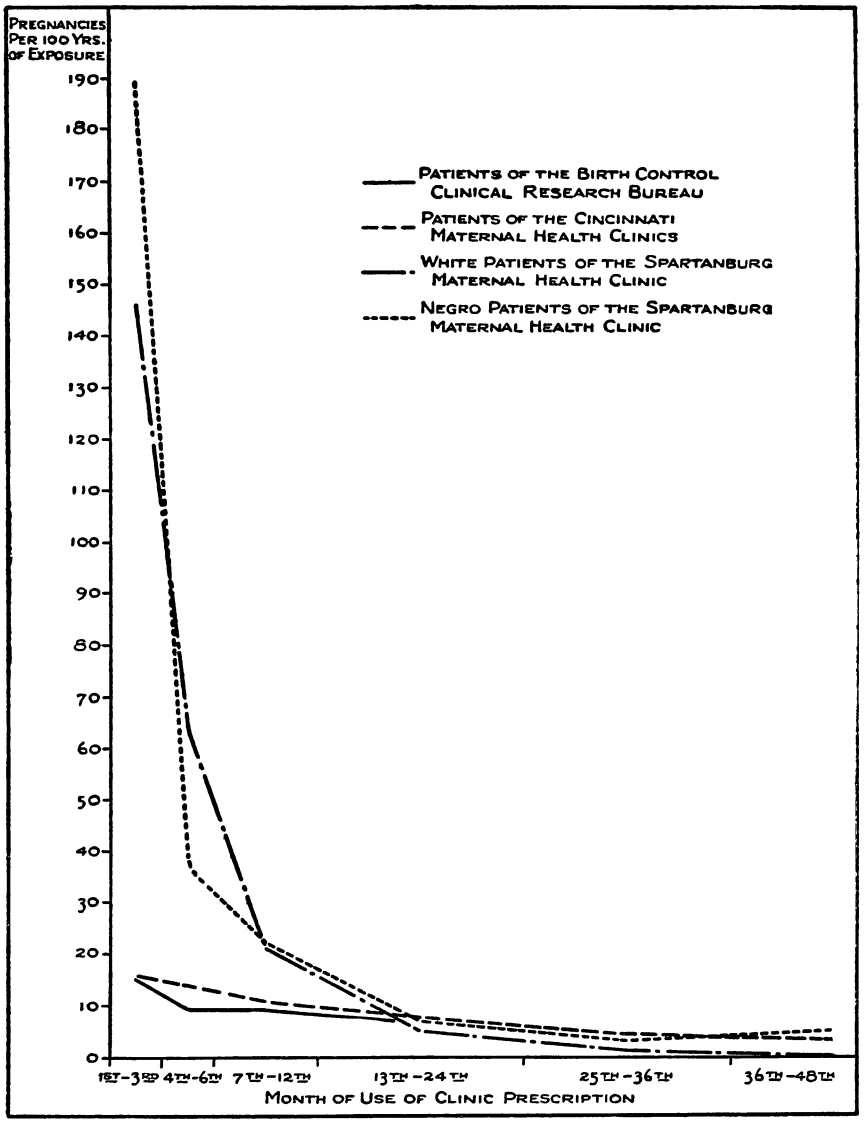

Fig. 7. Pregnancy rates in successive months of use of clinically prescribed contraceptives for four groups of women.

very low (Fig. 7). The rate for the first three months of use for Spartanburg Negro women was more than ten times as high as the corresponding rates for Cincinnati and for New York women, and the rate for white women in Spartanburg was almost as high as

that for Negroes. After fifteen months of use the rates of the Spartanburg women were as low as those of women in Cincinnati and in New York.

It is probable that the drop in rates with increasing length of use of the clinic prescription was associated with (a) an increasing dexterity in the use of the method, as the technique of use became more familiar; and (b) the fact that women who were inept in the use of the prescribed methods abandoned them and turned to other practices.

The Acceptability of the Prescribed Contraceptives. Not all women were willing to use the prescribed contraceptives, and a knowledge of the behavior of those who were unwilling to use them is as important for the formulation of effective clinic policy as is the fact that the methods prescribed were highly effective when used. Table 8 shows the proportions of women in each group of clinic

Table 8. Proportions of patients of three clinics who never used the prescribed contraceptives, who used them and then abandoned them, and who were using them at the time their records were closed.

Use of Clinic Prescription	White Patients of:			Negro Patients of Spartanburg Maternal Health Clinic
	Clinical Research Bureau (N.Y.C.)	Cincinnati Maternal Health Clinics	Spartanburg Maternal Health Clinic	
	Total number of women in need of contraception at closing date			
	943[1]	1,419[2]	412[3]	371[4]
	Per cent in each category			
Never Used	12.0	2.7	10.2	11.3
Discontinued	45.2	44.7	34.5	37.2
Using at Closing Date	42.8	52.5	55.3	51.5

[1] Total exclusive of 22 women whose exposure had ceased, and 26 women who gave up the use of CIP because they were planning pregnancy.
[2] Total exclusive of 146 women whose exposure had ceased, and 56 women ill or planning pregnancy.
[3] Total exclusive of 79 women whose postclinic experience was unknown, 2 women not fitted, 38 women whose exposure had ceased, and 2 women planning pregnancy.
[4] Total exclusive of 67 women whose postclinic experience was unknown, 18 women whose exposure had ceased, and 1 woman planning pregnancy.

patients who never used the prescribed contraceptives, who used them for a time and then discarded them, and who were using them at the time their records were closed.

The mean number of months between the initial clinic contact and the date of closing the record was about forty in Cincinnati and only about twenty in New York and in Spartanburg; therefore, the proportion of women using the prescribed contraceptives at closing date in Cincinnati is not strictly comparable with those for the other two areas. In spite of the longer average postclinic period in Cincinnati, with its correspondingly greater opportunity for loss of patients, the proportion of women using the prescribed contraceptives in any form when their records were closed was significantly higher in both Cincinnati and Spartanburg than in New York.[8]

The differences between the New York and Cincinnati patients were even greater when the proportions using at equal intervals following the initial clinic contact are compared. Figure 8 shows, for the four groups, the proportions of women still in need of contraception who were using the prescribed contraceptives in any form at successive intervals during the first year following their initial contact with the clinic.[9] In all three clinics the most rapid

[8] The data for all three clinics relate only to those patients who could be found and interviewed between one and five years after their initial contact with the clinic. It may be assumed that those women who failed to maintain contact with the clinics and therefore could not be found were probably not using the contraceptives prescribed for them. The possible bias introduced by the loss of between 15 and 20 per cent of the patients originally in each sample has been discussed in detail for the New York and Cincinnati clinic patients (*see* Stix and Notestein, Chapter III, pp. 92-93, Table 38; Stix, 1939, pp. 153-155, Table 14, and pp. 156-157, Table 16). In Spartanburg it was found that among the white patients lost there was a significantly higher proportion who had not reached the sixth grade than was found among those interviewed. Other differences were not significant. The lost Negro patients, on the other hand, were younger, had been married a shorter time, and had had significantly fewer pregnancies than those interviewed. Their preclinic pregnancy rates without contraception were also significantly lower than those of the interviewed patients. Among both white and Negro women the proportion of couples who had used any contraception before clinic attendance was smaller among the lost than among the interviewed patients. Thus, it may be assumed that the white patients lost were predominantly those with little or no education who had little interest in controlling their fertility, while the Negro patients lost were mainly those whose need for controlling their fertility was less than that of the women who could be found and interviewed.

[9] It was found in Cincinnati and Spartanburg that the proportions of patients who

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loss of patients occurred within a brief period after the first clinic contact. At the end of one month 26 per cent of the New York patients, about 17 per cent of the Spartanburg patients, and 7 per cent of the Cincinnati patients had ceased using the prescribed contraceptives. Spartanburg white patients were slightly but not significantly more cooperative than the Negro patients. A year after they had first sought expert contraceptive advice, the proportions of women in the three areas still in need of contraception, who were using the contraceptives given them, ranged between about 55 per cent for the New York patients and for the Spartanburg Negroes and 68 per cent for the Cincinnati women. Had it been possible to compute similar figures for the lost as well as for the interviewed patients, the proportions using would have been considerably lower for all groups.

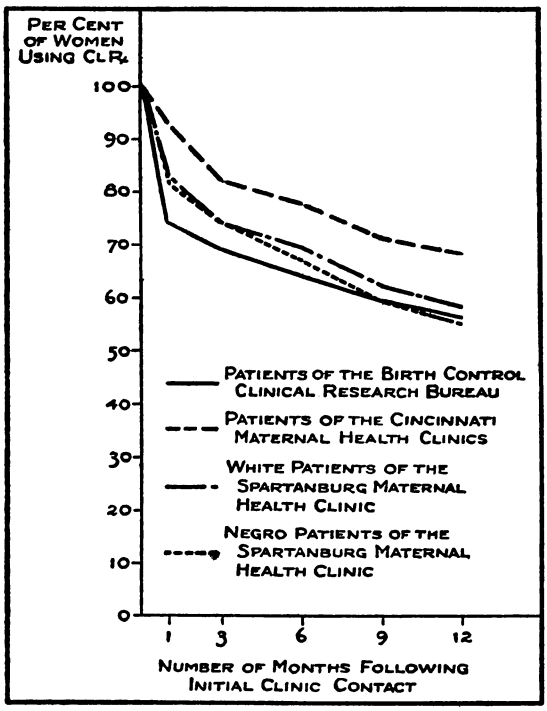

Fig. 8. Proportions of clinic patients using the prescribed contraceptives at successive intervals following their initial clinic contact.

It is probable that in New York the high immediate rate of loss and the relatively small proportion of clinic patients using the pre-

stopped using the clinic prescription were greater in the first year or two after the clinics were established than they were in later years. The proportions shown in Figure 8 are averages for the first four or five years of clinic service for these two clinics. For New York, where the clinic was well established, they are averages for the year and a half of service selected for study.

scribed contraceptives throughout the postclinic period were associated with the availability of other and more familiar types of contraception, which the New York patients found they preferred after they had given the prescribed contraceptives a trial. In Spartanburg, where cooperation with the clinic was better than in New York, but not so good as in Cincinnati, poor living conditions and general inertia operated against the consistent use of any contraceptive.

Table 9, which shows for each group of women the distribution of the reasons given for discontinuing the use of the prescribed contraceptives by those women who were dissatisfied with them,

Table 9. Distribution of reasons given for the rejection of the prescribed contraceptives by four groups of clinic patients.

Reason for Rejecting the Clinic Prescription	White Patients of:			Negro Patients of Spartanburg Maternal Health Clinic
	Clinical Research Bureau (N.Y.C.)	Cincinnati Maternal Health Clinics	Spartanburg Maternal Health Clinic	
	Number of women rejecting CIR because of dissatisfaction with it			
	539	683	184	180
	Per cent rejecting CIR for each reason			
All Reasons	100.0	100.0	100.0	100.0
Difficulty in Renewing Supplies	15.8[1]	33.5	19.6	15.0
Difficulty in Placing CIR	5.9	4.4	4.3	12.2
Discomfort for Wife or Husband	21.2	22.0	21.2	13.3
CIR Esthetically Unacceptable, or Husband Objected to its Use	13.9	11.4	7.6	12.2
CIR too much Trouble to Use	16.5	9.5	19.0	22.2
Afraid to Use CIR	13.5	4.7	7.1	3.9
Pregnant in Spite of Use	7.6	8.6	8.2	3.9
Other or Unknown	5.6	5.9	13.0	17.3

[1] Includes 57 patients who did not return because they could not pay for supplies.

throws some light on the similarities and differences in attitude in the three areas. About 20 per cent of the dissatisfied white patients in all three areas gave up the prescribed contraceptives because they were uncomfortable. The consistency of this figure should carry considerable weight with clinic administrators. Only 13 per cent of the Negro couples reported discomfort as a reason for giving up the clinic prescription, but 12 per cent reported difficulty in placing it, as compared with between 4 and 6 per cent of the white women.

About 30 per cent of all the patients prescribed for in New York City found that the clinic prescription was esthetically unacceptable, uncomfortable, difficult to place, or too much trouble to use. Corresponding proportions for white women in Spartanburg and Cincinnati were about 20 per cent and for the Negro women 24 per cent. The proportions in all three areas are too large to be ignored by clinic administrators and point to the need of prescribing other techniques for these dissatisfied patients. It is probable that in New York the large proportion of women giving up the prescribed contraceptives for these reasons did so because other and more acceptable contraceptives were easily obtainable, whereas, partly because of poverty, patients in the other two areas were compelled to lean more heavily on the clinics as their main source of supply.

The Over-All Effectiveness of Clinic Service and Its Implications for Clinic Policy

It has been shown in Table 8 that between 45 and 57 per cent of the women who sought advice from each clinic either never used the contraceptives given them or ceased using them before their records were closed. Some of these women turned to the use of other contraceptives; some abandoned the use of contraception entirely. The proportions of each type of exposure in the postclinic experience of each group are shown in Figure 9.

In New York, clinically prescribed contraceptives were used for

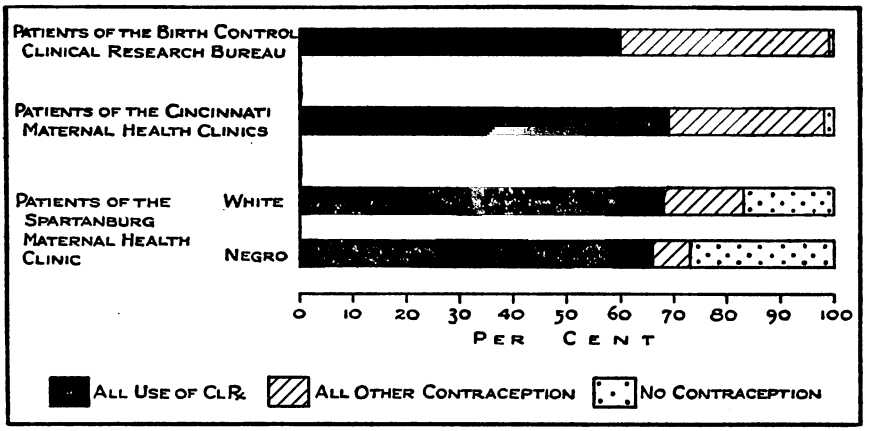

Fig. 9. Proportions of postclinic exposure during which four groups of clinic patients used clinic prescription, other contraceptives, and no contraception.

about 60 per cent of the total postclinic exposure, and for practically all of that remaining, other types of contraception were employed. In Cincinnati the prescribed contraceptives were used for nearly 70 per cent of the postclinic exposure, and no contraception was used for 2 per cent. In Spartanburg the clinic prescription was used for about 65 per cent of the exposure of both white and Negro women, but the proportions during which no contraception was used were 17 per cent for white and 27 per cent for Negro women.

Table 10 shows in detail the proportion of couples with each pattern of contraceptive practice after they had been advised at the clinic. The proportions using no contraception either throughout the postclinic period or after they had given up the clinic prescription were very high in Spartanburg. Thirty-nine per cent of the Negro and 23 per cent of the white women had given up any attempt to use contraception by the time their records were closed. Only 2 per cent of the women in Cincinnati and only 3 of the 991 women in New York did the same.

In New York and in Cincinnati the contraceptives most frequently used by couples who decided against using the clinic prescription were coitus interruptus and condom, in the order named (Table 11). In Spartanburg these were also the methods of choice

Contraceptive Practice after Clinic Attendance	White Patients of:			Negro Patients of Spartanburg Maternal Health Clinic
	Clinical Research Bureau (N.Y.C.)	Cincinnati Maternal Health Clinics	Spartanburg Maternal Health Clinic	
	Number of women with known postclinic exposure			
	982	1,618	448	383
	Per cent with each type of contraceptive practice			
Total	100.0	100.0	99.9	100.0
No Contraception at All	0.2	0.2	7.1	11.7
Clinic Prescription or Variant Only	40.2	51.4	56.7	50.9
Other Contraceptives Only	11.5	2.2	6.2	4.7
Clinic Prescription, Then Other Contraceptives	48.0	44.2	13.8	5.5
Clinic Prescription, Then No Contraception	0.1	2.0	16.1	27.2

Table 10. Contraceptive practice after clinic attendance for four groups of clinic patients.

of white couples but in the reverse order. Almost half of those couples who used contraceptives other than those prescribed used condoms. Fifty-six per cent of the Negro women who preferred other contraceptives to those prescribed at the clinic used douche.

All contraception was much more effective postclinic than preclinic for the patients of all three clinics. The per cent of increase in effectiveness postclinic over preclinic is shown in Figure 10. For the New York women the postclinic effectiveness of all contraceptives including those prescribed at the clinic was only 18 per cent greater than the effectiveness of all contraception before clinic attendance, because their preclinic use of contraceptives was so effective that there was little opportunity for improvement. For Cincinnati women, for whom there was greater opportunity for improvement, the increase was 63 per cent, and for Spartanburg white women 72 per cent. For the Negro women, whose preclinic contraceptive

Type of Contraception Used	White Patients of:			Negro Patients of Spartanburg Maternal Health Clinic
	Clinical Research Bureau (N.Y.C.)	Cincinnati Maternal Health Clinics	Spartanburg Maternal Health Clinic	
	number of couples using any type of contraception except CIR or variants postclinic			
	584	750	90	39
	per cent using each type			
Total	100.1	99.9	100.1	100.0
Condom	32.5	24.1	47.8	25.6
Coitus Interruptus	40.1	31.3	21.1	5.1
Condom or Coitus Interruptus	13.4	7.7	7.8	2.6
Douche	4.3	21.7	15.6	56.4
All Other Types[1]	9.8	15.1	7.8	10.3

[1] Includes all alternations of methods not otherwise specified, as well as suppository, sponge, jelly, etc.

Table 11. Proportion of couples, among those using contraceptives other than those prescribed, who used each contraceptive method after clinic attendance.

practice had little effect on their fertility, the increase was 179 per cent. Even when experience with the prescribed contraceptives was excluded, increases in effectiveness ranged from 15 per cent for the New York patients to 96 per cent for the Spartanburg Negroes.

There was a marked improvement in fertility control for all women who used contraception after clinic attendance, and especially for those who used clinically prescribed contraceptives. Over an extended period the fertility of the New York women could be expected to remain low, even though a large proportion of the patients abandoned the use of the prescribed contraceptives. Cincinnati patients might be expected to show a slightly greater increase in fertility than the New York women, as they turned from the clinic prescription to other types of contraception because, for this group, the postclinic effectiveness of other contraceptives was 20 per cent lower than that of the clinic prescription (Table 7). In

Spartanburg, even though other types of contraception were as effective for white women as those prescribed by the clinic, a substantial proportion of women abandoned the use of contraception and group fertility could be expected to rise as the number of these women increased. For Negro women, the increase would be even more marked because a larger proportion of them abandoned the use of contraception entirely, and the few who turned to the use of other contraceptives used mainly those that were least effective. An estimate of the rate at which group fertility might be expected to increase, as the period following the initial contact with the clinic lengthened, is shown for each of the four groups of clinic patients in Figure 11.[10] For all four groups there is a sharp drop in the number of live births per year of married life in the first year after clinic atten-

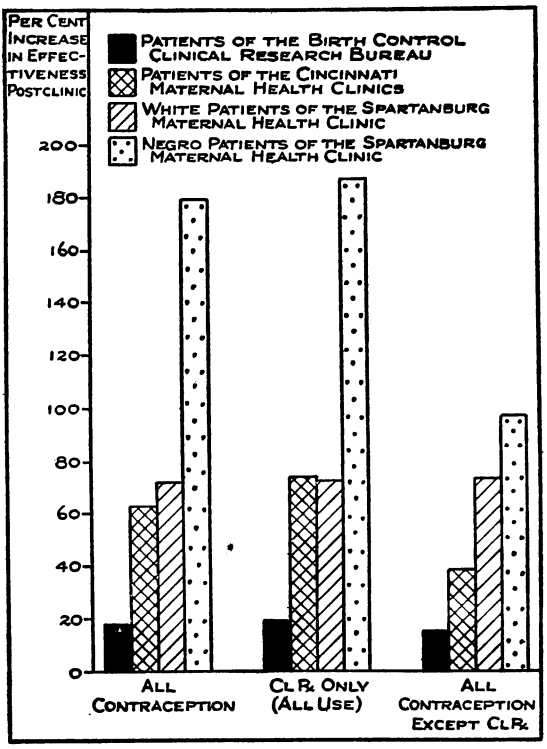

Fig. 10. Per cent of increase in the effectiveness of the contraception used after clinic attendance over that used before clinic attendance, for four groups of women.

[10] The rates (for second and later pregnancies) were derived by weighting the observed number of live births per year of married life for each type of experience by the proportions of women expected to be participating in that type of experience in each postclinic year. Rates for each type of experience were standardized to the total years-of-married-life distribution of white and Negro patients of all three clinics. The estimates for the third, fourth, and fifth years of use were made by prolonging the curves of loss of clinic patients and applying to the proportions of women abandoning the use of prescribed contraceptives in each year the observed proportions in the whole sample who turned to other contraceptives and to no contraception.

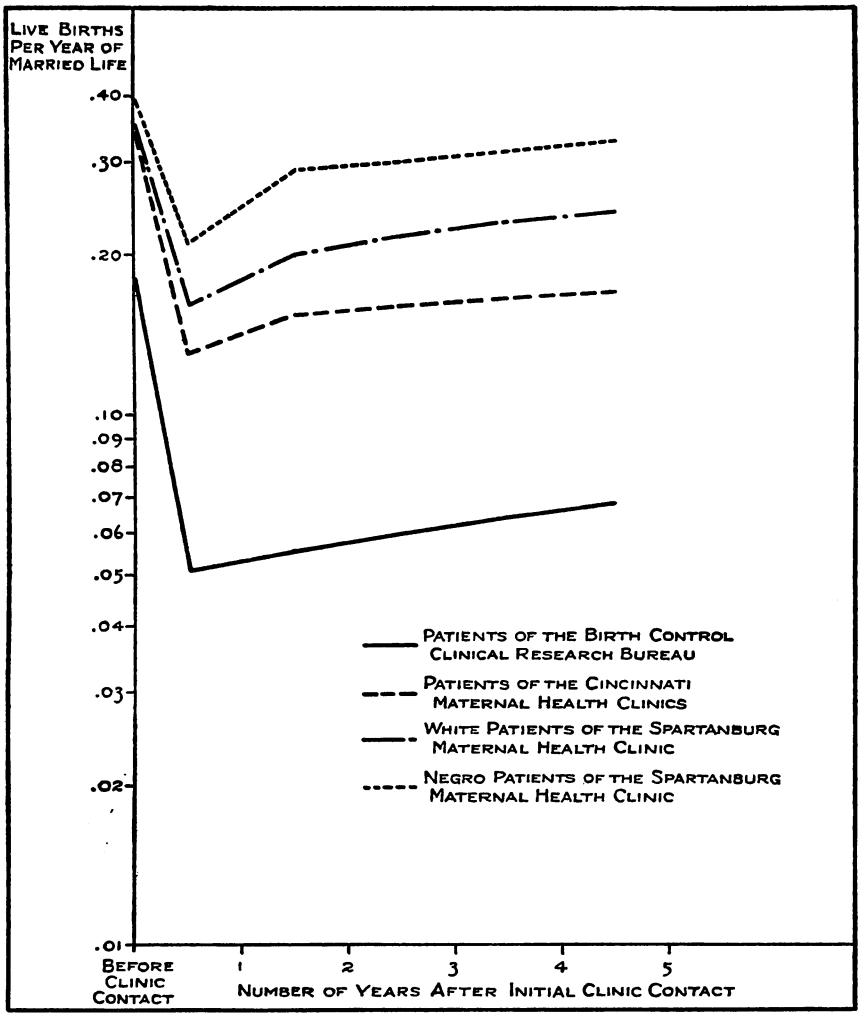

Fig. 11. Number of live births per year of married life before clinic attendance, and estimated number in successive years after clinic attendance, for four groups of women.

dance, but as more patients abandon the methods prescribed for them the fertility of each group increases. In New York the increase is negligible over an estimated five-year period. For Spartanburg Negroes, at the other extreme, the rate rises first sharply and then more gradually until in the fifth postclinic year the expected rate is very little below the preclinic rate. For the white pa-

tients in Cincinnati and Spartanburg the expected curves are intermediate between that for New York and that for the Negroes.

The trends observed in Figure 11 have important implications for clinic policy because the four groups of patients studied were typical of the widely differing groups served by physicians and clinics in various sections of the country. The New York group was probably more nearly like the patients of the average urban physician in private practice than like the patients of the other clinics under consideration. It is possible that for this group even the slight rise in fertility shown in Figure 11 might have been avoided had the patients who were dissatisfied with the clinic prescription been taught the best use of those techniques which they preferred. A detailed analysis of their reactions suggested that a more flexible policy, permitting the prescription of a wide selection of generally used techniques would probably have made for greater patient satisfaction.[11] It must be stressed repeatedly that the use of contraception involves many personal problems and adjustments, and it is important, especially for couples to whom a number of techniques are already familiar, to provide each couple with the contraceptive or contraceptives best suited to their needs and desires. A method which may be relatively ineffective for some couples may be highly effective for the couple to whom it is acceptable and who use it with care and diligence, whereas even a highly effective method is of little or no use to the couple who dislike it and will not use it consistently.

The patients of the Cincinnati clinic were probably representative of the average urban maternal-health-clinic clientele.[12] For this group also, the clinic should have offered a wider choice of contraceptive techniques and instructed the patients in the best use of those techniques. The majority of couples who discarded the clinically prescribed method turned to contraceptives they had used

[11] Stix and Notestein, Chapter XII.

[12] Stix, 1939, Foreword, to bound monograph, pp. v and vi, including footnote 4.

previously.[13] Some attempt should have been made to teach these patients how best to use the methods familiar to them. Other patients, who tried methods new to them, might have been assisted in the development of the best techniques of use of the new methods. The cost of commercial contraceptives may have prevented the use of the more effective methods, such as condom, by many couples who did not like the clinic prescription. For those couples who were not on relief, condom ranked high among alternative methods, but couples on relief depended mainly on coitus interruptus or douche.[14] Had the clinic provided other methods, such as condom, at little or no expense, the clinic service might have been considerably more effective.

The patients of the Spartanburg clinic are typical of the populations in southern areas of population pressure. The surprising finding for this group is that so many patients were willing to use a complicated contraceptive technique in spite of adverse living conditions and educational handicaps. It is probable that many women who realized the hazard of an additional pregnancy made a special effort to prevent the occurrence of such a pregnancy. Commercial methods were not readily available to them and, even if they had been, most couples had no money with which to purchase them. Thus, for indigent couples, the methods prescribed at the clinic and those which required no expenditure of money were the only ones available. The very fact that nearly half of the ninety white couples using other types of contraception postclinic used condoms (Table 11) is probably an indication that this method should have been more widely prescribed at the clinic. The Negro couples who used types of contraception other than those prescribed showed an overwhelming preference for douche after, as well as before, clinic attendance. While douche is a relatively ineffective contraceptive, its use by these Negro women after clinic attendance prevented nearly

[13] Stix, 1939, Table 21.
[14] Stix, 1939, Table 20.

60 per cent of the pregnancies that would have been expected had the same women used no contraception at all.

One problem presented by the Spartanburg patients was the wide prevalence of pathological conditions that might have been expected to interfere with the fit of a diaphragm. Thirty-five per cent of the white and 49 per cent of the Negro women had fecal impaction when they were examined at the clinic. Some of these women, as well as an additional 43 per cent of white and 33 per cent of Negro women, had cystocele or rectocele, or both. About 8 per cent more in each group could not reach the cervix because of marked obesity or short fingers. Thus, between 85 and 90 per cent of the women who came to the clinic were theoretically bad risks for diaphragm. This apparently did not affect the acceptability of the method, for there were no significant differences in the proportions of women with and without anatomical abnormalities who rejected the prescribed contraceptives, or who used them for a year or longer. The pregnancy rates of the two groups also did not differ.

It is obvious that a contraceptive service for a group such as that attending the Spartanburg Maternal Health Clinic is one which presents special problems. The ideal service for a group of such low economic and social status should offer a choice of very simple contraceptives requiring as little forethought and care as possible. The so-called "simple" feminine techniques now prescribed are cumbersome, however. For example, the Spartanburg clinician reports that few patients are willing to use sponge and foam powder because they find it uncomfortable and just as difficult to use as the diaphragm and have less confidence in it.

If patients are willing to use the diaphragm and jelly, or a similar technique, it has definite advantages over male techniques in that it puts the control of fertility into the hands of the wife, whose health is at stake. If that technique is not acceptable, however, every effort should be made to substitute another and preferable contraceptive which the couple can use effectively. The problem may be

more difficult in a rural southern area than in a city such as New York, because fewer patients will have used any contraceptives previously, and there will be less opportunity to encourage the best use of familiar techniques. The wise policy for every clinic group is to make sure that every couple is given the contraceptive or contraceptives best suited to individual needs and preferences, and to educate each patient to return to the clinic for further advice if the methods first prescribed are unsatisfactory.

The problem of including techniques other than those which up to now have had almost exclusive clinic approval, and which do not necessarily require expert fitting by a physician, may raise the question of the need of having these familiar contraceptives prescribed at a birth control clinic or by a physician. It may be assumed that expert advice on the use of any contraceptive technique may make for more effective contraceptive practice. In prescribing condoms, for example, the trained clinician can advise on the need of testing for flaws as well as on the wisdom of using a spermicide in addition to the condom. Advice may vary with patient differences in anatomy, physiology, and marital adjustment.

With the small amount of money available for subsidized contraceptive services, it would seem highly desirable that all such services be under hospital or public health supervision. Contraceptive advice should be available to all women for whom pregnancy is contraindicated, regardless of their ability to pay. To be most effective, the contraceptive clinic should be coordinated with the other services necessary for the best medical care of the patient, and should cooperate as closely as possible with referring clinics and physicians. Each patient should be encouraged to return as frequently as may be necessary, if the methods initially prescribed are not completely satisfactory.

The provision of contraceptives for the mass of the population in areas of population pressure is a matter which might well be approached differently. Subsidized services cannot possibly reach

large numbers of people, but the wider distribution of approved low-priced commercial contraceptives would probably meet the need of those people who wish to plan the size of their families but are not now able to do so satisfactorily. If such an organization as the American Medical Association would set up standards for contraceptives as it has for drugs and foods, much could be done to improve the quality of commercial contraceptives. Wise pressure on commercial distributors to bring the price of their products down to a point at which wider distribution would pay for decrease in price would probably make it possible for many people in the poorer sections of the country to purchase contraceptives not now available to them.

Even though such a program were to be instituted there would still be a residual group for whom the use of any contraceptive would be too troublesome. As Vance[15] has pointed out, a demand for contraceptives from this group will not be forthcoming until it is possible to raise the group standard of living. Thus, the solution of the problem of reducing birth rates in areas of very high fertility and low levels of living will require social changes which create and give force to a desire to limit family size.

[15] Vance, Rupert B.: The Regional Approach to the Study of High Fertility. Presented at the Round Table on Research in Factors Influencing Fertility, Nineteenth Annual Conference of the Milbank Memorial Fund, April 29-30, 1941.