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ABSTRACT

Changes in abortion legislation in Romania, together with the effects of restrictive legislation, are summarized in "Abortion Legislation: The Romanian Experience," the first of two articles in this monthly publication of The Population Council. Romania legalized abortion on request in September, 1957. Nine years later, October, 1966, the right to abortion was severely restricted, while other legal measures with pronatalist intent were introduced. Speculating upon the utility of this legislation in attempting to influence human fertility behavior, it is shown that well-established behavioral patterns of fertility control are resistant to significantly prolonged change by governmental edict alone. The second article, "Family Planning Patterns in Sierra Leone," is a sequel to Thomas Dow's paper which appeared in "Studies in Family Planning", Volume 2, Number 8 (SE 012 796). While the focus of the earlier paper was on presentation of data and interpretation of dominant trends, this one is more speculative in nature and attempts to identify those elements in the social structure that are indicative of the course family planning developments in Sierra Leone may take. Highlighted are the difficulties expected in the transition to greater approval and practice of family planning. (BL)

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Abortion Legislation: The Romanian Experience

THE FOLLOWING paper was prepared by Drs. Henry P. David and Nicholas H. Wright. Dr. David is Director of the Transnational Family Research Institute, American Institutes for Research and a member of the Department of Psychiatry of the University of Maryland Medical School. Dr. Wright is a Staff Associate at the Population Council. Portions of this paper were presented by Dr. David at the annual meeting of the Population Association of America, Washington, D.C. April 1971. The paper is based, in part, on material gathered with the support of the Center for Population Research, NICHD (NIH-69-2016) and the Ford Foundation. The authors acknowledge the assistance of Romanian colleagues and the thoughtful suggestions of Christopher Tietze and Emily Moore of the Population Council, and Lincoln Day of the United Nations.

abortion as a major method of limiting family size (David, 1970).

Official approval in 1957 of induced abortion on request sharply reduced illegal practices and made abortion legally, as well as socially, acceptable. Abortion centers were organized in large and medium sized hospitals, and outpatient facilities were attached to industrial plants having a sizable female work force. Women could request terminations of unwanted pregnancies within the first three months of gestation without needing prior approval of an abortion commission. Unlike the regulations in other socialist countries in central and eastern Europe, no extensive bureaucratic formalities of any kind were necessary. While name, age, number of previous births and abortions, and occupation were recorded in a register, they were not checked for veracity. Secrecy of abortion was assured.

After it had been medically determined that the unwanted pregnancy was of less than 12 weeks' duration, the abortion was usually performed immediately or within a week. Many abortions were accomplished on an outpatient basis with the woman remaining in the recovery room for about two hours. The fee was usually

Following the lead of the Soviet Union, Romania legalized abortion on request on 25 September 1957 by Decree Number 463. The objectives were to give women the right to decide whether and when to have children, and to discourage nonqualified performers of abortions by making induced abortion by qualified practitioners more easily available (Mehlan, 1965). The right to abortion was severely restricted nine years later, on 1 October 1966. At the same time, other legal measures with pronatalist intent were introduced. It is the purpose of this paper to summarize what is known about Romanian experience before and after the changes in abortion

legislation and to speculate on these findings and on the utility of legislation in attempts to influence human fertility behavior.

Historical Background

In 1930 when Romania was a primarily agricultural country the birth rate was 34.1 per 1,000 population. By 1938 the birth rate had fallen to 29.5 per 1,000 population, and by 1956 it had fallen to 24.2. The decline in the Romanian birth rate appears to be associated with post-World War II industrialization and urbanization, combined with an increase in the long-standing traditional recourse to illegal

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less than US \$3.00, of which the physician received about half. Doctors worked in shifts and were permitted to perform up to ten abortions per day. Pregnancies of more than three months' duration could be terminated only in hospitals and only after medical approval had been received (Mehlan, 1965).

Liberal Abortion Laws

Official abortion statistics are generally not available from Romania. Mehlan (1965) learned that 112,000 abortions were performed in 1958, the first full year after induced abortion was legalized. The number of pregnancy terminations rose to 219,000 or nearly double in 1959. Relative to live births, the ratio was about 29 induced abortions per 100 live births in 1958 and 60 abortions per 100 live births in 1959. These abortion rates placed Romania immediately after Hungary in the socialist countries of central and eastern Europe. The Hungarian rate was 92 abortions per 100 live births in 1958 and 101 in 1959.

Although not representative for the country as a whole, partial reports from Bucharest and other large Romanian cities suggest that initial and repeated abortion-seeking behavior increased considerably in certain geographic areas during 1960-1962. For example, at Filantropia, the largest gynecological hospital in Bucharest, the ratio of abortions to births rose from 0.6 abortions to one birth in 1956 to 8:1 in 1959, and to 14:1 through July 1962 (Gheorghiu et al., 1963). Only 1.0 percent of induced abortions were terminated for primarily medical reasons. This suggests that a very significant per-

centage of abortions reflected unwanted pregnancies, interrupted for socioeconomic or other personal reasons. Summarizing Romanian studies published during 1963, Mehlan (1965) observed that 70-75 percent of women having legal abortions were in the 21-30 year age group. Approximately 8-10 percent were 20 years old or younger. About 94 percent were married. More than 50 percent of the women had had four or more previous induced abortions. Women applying for an abortion in Bucharest had had an average of 3.9 prior abortions each.

A few fragmentary abortion statistics became available after 1959. In 1966 a report was presented to the Plenum of the Romanian Communist Party Central Committee by the Ministry of Health, stating that "the number of abortions continued to rise, reaching the figure of 1,115,000 in 1965, or four abortions for each live birth" (Romanian Ministry of Health, 1968). Based on this report the ratio of 400 abortions per 100 live births was substantially higher than the 136 abortions per 100 live births reported from Hungary. It is not clear whether total abortions for 1965 include spontaneous abortions, but it seems likely. In 1967 there were 52,083 induced (including 424 criminal) abortions and 153,700 spontaneous abortions, for a total of 205,783 (World Health Organization). The comment from Romanian sources that in 1967 there had been "a more than five-fold drop" from the 1965 abortion peak supports the assumption that spontaneous abortions were included in the 1965 total (Romanian Ministry of Health, 1968). In the absence of official statistics it is

difficult to evaluate the astonishing 1965 abortion figure reported by *Munca* which tends to suggest a near total dependence on abortion as a method of birth planning, at least in 1965.

During the decade of experience with liberal abortion legislation, the Romanian birth rate continued to decline, from 24.2 per 1,000 population in 1956, the year before the abortion law was liberalized, to 14.3 in 1966. It was evident that abortion had become widely available in a manner preserving the privacy of the woman terminating an unwanted pregnancy, and that it was a socially acceptable method of birth planning. Although posters with instructions about contraception were widely displayed in abortion centers, and physicians were technically required to offer instructions in the use of contraceptive methods or to suggest insertion of an IUD after performing an abortion, there is considerable doubt about how much instruction actually occurred. It appears that modern contraception was not widely practiced and did not assume a significant role in Romanian fertility behavior (David, 1970).

The Legislation of October 1966

The very liberal abortion policy was abruptly reversed on 1 October 1966. The Romanian Council of State issued a decree strictly limiting the availability of abortion on request to (a) women over 45 years of age; (b) women already supporting four or more children; or (c) women whose life, in the judgment of a special commission, was endangered by the pregnancy, or who were faced with the risk of congenital deformity, or whose pregnancy resulted from rape, or who were "physically, psychologically, or emotionally incapacitated" (Romania, 1967). More than 100 medical indications are narrowly defined in the legislation with the only leeway remaining in the psychiatric area. Although the 1966 Romanian legislation is comparatively restrictive for eastern European circumstances, it is still more liberal than that prevailing in many western European countries and North American states.

The Preamble to the October 1966 Decree refers to the "great prejudice to the birth rate and rate of natural increase" resulting from the practice of abortion as well as to "severe consequences to the health of women." As Tietze (1969) comments, "In the absence of any reports from Romania on mortality or morbidity associated with legal abortion in that country, one may conclude that the pri-

TABLE I. *Monthly Birth Rates, Romania: 1966-1971*

Month	1966	1967	1968	1969	1970	1971 ^b
January	12.7	15.4	29.5	25.3	20.1	18.7
February	14.8	15.7	29.5	24.9	21.5	20.5
March	15.1	16.5	29.8	25.1	22.6	21.5
April	15.4	17.8	28.1	24.7	23.5	
May	15.2	20.7	26.8	24.1	22.3	
June	14.8	29.9	26.2	22.7	22.3	
July	14.3	38.7	26.0	23.6	22.1	
August	14.4	38.5	26.1	23.3	20.6	
September	14.1	39.9	27.8	24.9	20.8	
October	14.5 ^a	36.1	26.4	23.0	20.5	
November	13.9	31.1	24.2	20.8	18.8	
December	12.8	27.7	21.5	17.9	18.4	
Total by year	14.3	27.3	26.8	23.3	21.1	

^a Abortion policy reversed in October 1966.

^b Figures for 1971 are preliminary.

Sources: Data for 1966-1970 from *Anuarul Statistic al Republicii Socialiste România*, editat de Directia Centrala de Statistica and *Buletin Statistic Trimestrial*. Preliminary data for 1971 supplied by the Statistical Office, United Nations.

mary reason for repeal of the law of 1957 was a concern over the decline in the birth rate." By 1963, the Romanian net reproduction rate had fallen to 0.91, indicating that the population was not replacing itself (U.N. Demographic Yearbook, 1969). In an article published in *Scinteia*, Buïgaru (1966) expressed concern over the long-term effects of abortion as well as the potential dangers of laxity in abortion procedures amidst the steeply rising demand for such services.

Concomitant with the reversed abortion policy, several pronatalist measures were introduced. Family allowances were liberalized and increased (Social Security, 1969). The income tax was reduced 30 percent for families with three or more children (Sadvokasova, 1969). The "childlessness" tax was reintroduced and levied on men and women over 26 years of age, whether single or married. The basis on which the government paid a birth allowance also changed in late 1966. Formerly, a birth allowance equivalent to about \$85.00 was paid to the parents of all tenth and later births on the basis of the birth certificate. Parents having a third or later birth became eligible for this lump sum payment beginning 1 January 1967 (Romania, 1966).

Official importation of contraceptives ceased, but their sale was not prohibited. Divorces for couples with children under 16 years of age were made more difficult to obtain. The divorce process was lengthened, requiring a trial period of reconciliation of six months for families without children and one year for those with children. This explains why the number of divorces fell from about 25,000 in 1966 to 48 in 1967. As shown in the following text table, the divorce rate increased in 1968, and again in 1969, but remained less than 20 percent of the 1965 rate.

Romania: Divorce Rates per 1,000 Population

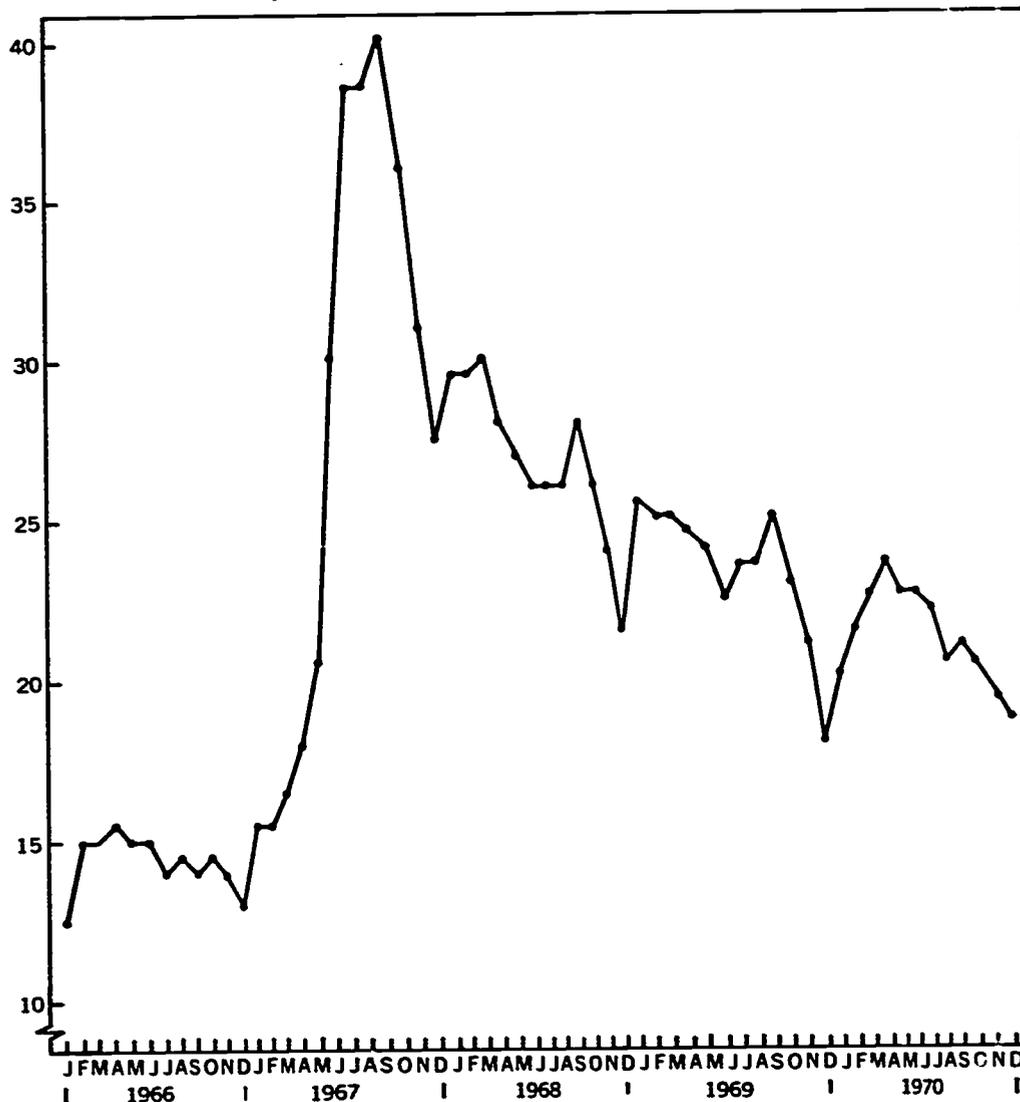
Year	Rate
1965	1.94
1966	1.35
1967	<0.01
1968	0.20
1969	0.35 (Provisional)

Source: U. N. Demographic Yearbook, 1969

Effects of Restrictive Legislation

The dramatic effect of the October 1966 legislation is apparent in Table 1 and Figure 1. After promulgation of the decree, the birth rate rose from a low of 12.8 per 1,000 population in December 1966 to

FIGURE 1. Monthly Birth Rates per 1,000 Population. Romania: 1966-1970



39.9 in September 1967. Since December 1966, the birth rate has gradually decreased, almost steadily on a month-by-month basis, as shown in Table 1. Initial effects of the legislation were reported and discussed by Ferenbac (1969) at the London Congress of the International Union for the Scientific Study of Population. Annual birth rates per 1,000 population rose from the low of 14.3 in 1966 to 27.3 in 1967 but subsequently declined again to 26.8 in 1968, 23.3 in 1969, and 21.1 in 1970. A further fall in 1971 appears likely, but the rate of decline has decreased since 1968.

The striking increase in birth rates between 1966 and 1967 was not uniform by live-birth order or maternal age. As Table 2 shows, fertility rate increases for women aged 25 and over and live-birth orders two to five were greater than the overall increase of 89 percent. Women in all the reproductive age groups and at all live-birth orders contributed to the fertility increase, but the highest increases were among

women over age 30 at live-birth orders three and four. Data on age and live-birth order specific fertility rates are not available after 1967.

The relatively smaller contribution of women at birth order one to the 1966-1967 fertility increase may be due to the greater acceptance of first births by married couples in 1966 and earlier. Later birth orders were presumably more likely to be aborted in 1966, although the smaller increases in fertility rates for sixth order births suggest that there may be some women, perhaps rural women, who did not often resort to abortion even in 1966. A more tenuous reason for the smaller increases among women under 25 at birth order one relates to the decline in the crude marriage rate, from 8.6 and 8.9 in 1965 and 1966, respectively, to 8.0 in 1967 and 7.0 in 1969. Younger women in Romania may tend to rely more on contraception than do older women and thus may have been less vulnerable to the abortion law change. Finally, younger, un-

TABLE 2. *Percent Increase in Age Specific Fertility Rates Between 1966 and 1967 by Birth Order, Romania*

Maternal age	Live birth order						All birth orders
	1	2	3	4	5	6	
Under 20	53	79	100	*	*	*	57
20-24	57	111	144	83	40	0	81
25-29	47	99	194	126	75	50	101
30-34	39	111	253	202	90	43	129
35-39	41	131	321	290	122	72	138
40-44	50	125	262	262	112	66	93
All ages ^a	50	97	201	170	93	50	89

* Base too small.

^a Including women 45 and over and 7th and later births.

Source: Derived from data in United Nations Demographic Yearbook, 1969.

married women may have found it easier to gain approval for a legal abortion or may have been more willing to seek illegal abortion after 1966. These are, admittedly, speculations.

Information on early fetal death is more elusive. As cited above, 205,783 abortions were reported in 1967, including 153,700 spontaneous abortions, but no similar earlier data are available for comparison. Although it is likely that spontaneous abortions in 1967 probably include many that were illegally induced, the Romanian authorities suggest that there may have been a true increase in incidence, resulting from anatomical damage by repeated induced abortions during the preceding years. It is stated that women admitted to hospitals from November 1966 through March 1967 had experienced, on the average, five prior abortions. Evidence of increasing illegal abortion is apparent from the note that in the area served by the Baco Hospital, for example, there were, typically, about 15,000 induced abortions per year during the time of the liberal abortion laws, without any cases of mortality. In the two years after the legislative change, five deaths were recorded as due to complications from illegally induced abortions. Similar experience was noted in the Filantropia Hospital in

Bucharest (Novak, 1969). More evidence for an increase in illegal abortions is provided in the World Health Statistical Annual, which reports substantial changes in the number of deaths attributed to abortion in Romania. From totals of 64 and 83 deaths in 1965 and 1966, respectively, the number rose to 170 in 1967 (World Health Statistical Annual, 1968).

There does appear to have been a definite increase in late fetal deaths (stillbirths). Table 3 presents late fetal death ratios by maternal age and shows the usual J-shaped relationship. Between 1966 and 1967, the overall ratio increased 23 percent. Late fetal death ratios had fallen steadily from their 1950-1954 average of 21.6 to 14.5 in 1965. The 1966-1967 increase occurred at all maternal ages, but was slightly more pronounced among mothers in the 25-39 group. After 1967 late fetal death ratios fall in all age groups, and, by 1969, they approximate 1966 levels.

Infant mortality rates also changed markedly after 1966. The rate prevailing in 1960, 74.6, declined rapidly, reaching 44.1 in 1965. It remained level at 46.6 in both 1966 and 1967 and then rose 27 percent in 1968 to 59.5. In 1969, the rate fell to 54.9. A provisional rate of 49.5 is reported for 1970.

TABLE 3. *Late Fetal Death Ratios by Maternal Age, Romania: 1965-1969*

Year	Maternal age ^a						All ages
	Under 20	20-24	25-29	30-34	35-39	40-44	
1965	12.8	11.9	14.0	16.6	22.1	33.1	14.5
1966	13.4	12.7	13.3	18.3	21.4	32.6	14.9
1967	14.7	14.8	16.8	21.5	28.0	36.0	18.3
1968	13.8	12.9	14.5	18.9	25.7	37.2	16.4
1969	12.5	11.4	13.6	17.5	23.9	34.8	14.9

^a Excludes women aged 45 and over.

Sources: Data for 1965-1968 from United Nations Demographic Yearbook, 1969 (Reporting judged to be complete). Data for 1969 derived from data in Anuarul Statistic al Republicii Socialiste Romănia, 1970.

Since the rapid change in numbers of live births after 1966 might be expected to influence the infant mortality rate, a cohort analysis was carried out. The working assumptions were that (1) the 1965 infant mortality rate was 45 (actually 44.1) and remained constant for succeeding years, (2) the distribution of infant deaths by month of life remained constant in the 1965 pattern, (3) deaths occurring in the first month of life were assigned to the calendar month of birth, etc. Expected infant deaths by year under these assumptions were separated by neonatal and post-neonatal status. The results appear in Table 4.

In 1966 there is little difference between observed and expected infant deaths. In later years, however, observed and expected neonatal deaths differ substantially. These differences, however, appear to diminish after 1968. The major conclusions are that the post-1966 increase in the Romanian infant mortality rate (1) was not produced by the changing numbers of live births (although the breakdown of the observed rate in 1967 does reflect the rapid change in cohort size) and (2) was confined to neonatal deaths. The excess neonatal deaths that occurred in 1967 were masked by an unchanging observed infant mortality rate.

If absolute numbers of neonatal deaths are compared for 1966 and 1967, deaths under 1 day, at 1-6 days and at 7-27 days increased by factors of 4.6, 3.7 and 2.4, respectively. The total increase in neonatal deaths, 1966-1967, was by a factor of 3.1. The findings are similar when 1966 and 1968 are compared. Thus, the excess neonatal deaths are concentrated in the first week of life.

The temporary increases in late fetal and neonatal deaths after 1966 may be considered together since the causes of death in both perinatal periods are similar. Several possible explanations are worth mentioning. It may be that the rapid increase in pregnancies carried to term overwhelmed the available antenatal care and delivery facilities leading to lowered standards of antenatal care and more deliveries outside the hospital and without professional attention. As the medical care facilities expanded and term pregnancies declined after 1968, it might be postulated that the then available facilities were better able to cope with the demand.

It also seems possible that the revised system of birth grants may have encouraged reporting of previously unreported live births in which death occurred early

in the neonatal period. Given the new scheme, it might have been worthwhile to fill out both birth and death certificates. This hypothesis implies a 1.0 percent underreporting of live births before 1967. It does not, however, explain the increase in late fetal deaths.

A third hypothesis is that many Romanian women resorted to late illegal abortions after the law became restrictive. This might have increased not only late fetal deaths, but also early neonatal deaths among babies born alive after intervention.

It seems unlikely that the changing distribution of live births by maternal age and birth order after 1966 can account for any very substantial part of the increase in late fetal and neonatal deaths. In the case of late fetal deaths, the change in distribution of live births by maternal age can only account for a 2 percent increase in the ratio, 1966-1967. The observed change was 23 percent. A similar analysis of infant mortality, based on 1960 U.S. data relating maternal age and birth order with infant death, suggests that the Romanian infant mortality rate might have been expected to decrease slightly between 1965 and 1968. Instead, it increased 35 percent between these years.

Finally, information from Hungary and Japan indicates that women who have had induced abortions are more likely to have premature births when they carry pregnancies to term and that the incidence of prematurity is directly related to the number of previous induced abortions (Barsy and Sárkány, 1963, Miltényi, 1964, and Moriyama and Hirokawa, 1966). In 1967, many Romanian women who had previously relied heavily upon abortion to control their fertility had live births. If prematurity rates were higher, one would expect higher fetal death ratios and higher death rates in the early neonatal period. No data on the distribution of live births by weight is available, however.

In summary, it appears that the number of legally induced abortions in Romania has been much reduced since 1966. The primary medical reason for performing abortions is psychiatric recommendations, based on the potentially harmful effects of carrying a pregnancy to term. There seems little doubt that the incidence of illegal abortion is rising. Both late fetal and infant deaths (particularly early neonatal) increased after 1966, but have returned, or appear to be returning to pre-1966 ratios and rates. Crude marriage rates have declined, a trend that may reflect perceived difficulties in avoiding an early first birth.

TABLE 4. *Observed and Expected Neonatal and Postneonatal Deaths, Percent Difference and Observed Infant Mortality Rates, Romania: 1966-1970*

Year	Observed	Expected ^a	Percent difference	Observed infant mortality rates
1966				
Neonatal	3,913	3,950	- 1	14.3
Postneonatal	8,833	8,400	+ 5	32.3
Total	12,746	12,350	+ 3	46.6
1967				
Neonatal	12,506	7,625	+64	23.7
Postneonatal	12,084	12,900	- 6	22.9
Total	24,590	20,525	+20	46.6
1968				
Neonatal	13,076	7,600	+72	24.8
Postneonatal	18,241	17,375	+ 5	34.7
Total	31,317	24,975	+25	59.5
1969				
Neonatal	9,899	6,725	+47	21.2
Postneonatal	15,685	14,825	+ 6	33.7
Total	25,584	21,550	+19	54.9
1970 (January-September)				
Neonatal	*	4,750		*
Postneonatal	*	10,050		*
Total	16,318	14,800	+10	*

^a Figures rounded to nearest 25.
* Data not available.

To review the present situation, the Romanian Council of State announced on 24 February 1969 its decision to establish a National Commission on Demography to study phenomena associated with the birth rate and strengthening the family. The Central Board of Statistics has joined with the Ministry of Health in conducting a representative sample survey which includes questions on child spacing and contraceptive practice. Results are expected to be available in 1971. At present, no changes in the Romanian abortion law are anticipated.

Public Versus "Private" Policy in Birth Planning

Although the abrupt change in Romanian legislation had a dramatic effect, that impact seems to be steadily decreasing as reflected in the birth rates. Personal discussions in Bucharest suggest that Romanian men and women have adjusted their family planning practices to what is possible and feasible under the circumstances. The traditional contraceptive method of *coitus interruptus* is again widely practiced. Condoms are manufactured in Romania and are also imported from the People's Republic of China and

the German Democratic Republic. Neither oral contraceptives nor intrauterine devices were ever developed or produced in Romania, although research with them is continuing in a few medical centers.

Although official importation of pills and IUDs was discontinued with the promulgation of the October 1966 Decree, no specific mention is made in the legislation about the actual sale of contraceptives. As already noted, condoms are available. Informal inquiries in Bucharest elicited the information that pills and loops are imported on a clandestine basis, usually from other socialist countries. Romanian women who want to obtain contraceptives can do so privately without risk of violating the law. IUDs are inserted by physicians during their off-duty hours on a private basis.

Mehlan (1965) and Potts (1967) have commented on the strong Romanian preference for small families. In Bucharest the mean preference was 1.3 children per family. For collective farmers the desired number of children was 1.8, but for educated women it was 0.7—figures without parallel elsewhere. Mehlan (1965) cites a 1963 Romanian report by Matic and Costa, indicating that 28 percent of all

Romanian marriages were childless at the time of the survey.

Differences between the fertility behavior of urban and rural Romanian families are apparent from the 15 March 1966 Census data. The number of live-born children per 1,000 women aged 15 years or older was 2.62 in rural communes compared to 1.51 in municipalities and towns. An inverse relationship was noted between the size of localities and the level of female fertility (Ferenbac, 1971). Thus, the number of live-born children per 1,000 women aged 15 years or older in 95 towns under 10,000 population averaged 1.98 compared to 1.15 such children per 1,000 women in the Municipality of Bucharest.

Personal inquiries in Bucharest in 1970 suggest that among educated persons the one-child family is preferred. The reasons are complex, usually involving a variety of factors, ranging from housing shortages and lack of child-care facilities to a desire for improved socioeconomic circumstances, better standard of living, and opportunities for advanced education and career development for the woman.

As noted by Myers (1970), families in eastern Europe, as elsewhere, probably develop patterns of fertility behavior according to their individual situations. In Romania, the small family ideal has become well accepted over the years and is unlikely to change significantly in response to public appeal. Legalization of abortion seems to have had the effect of sharply reducing though not entirely eliminating illegal abortion, while also accelerating the decline of the birth rate as more and more women realized that unwanted pregnancies could be safely terminated in the first trimester of pregnancy.

What conclusions can be drawn from the gradual decline of the Romanian birth rate after its initial upward spurt following the sudden reimposition of legal restrictions on induced abortion? Perhaps the most pragmatic reason for the increase in the monthly birth rate from the low of 12.8 per 1,000 population in December

1966 to the high of 39.9 in September 1967 is that Romanian couples required time and experience to adjust to the constraints of a decree which suddenly and severely restricted access to previously easily available legal abortion. This conclusion receives some support from Ferenbac's (1971) observation that the differential between urban and rural birth rates became minimal in 1967, but that the previous divergence reappeared in 1968 and became stronger in 1969. Although the birth rate continues to decline, it is too early to predict with certainty where or when a leveling off will occur. It is also true that in late 1966, the number of Romanian women at risk of live birth was at a maximum. As these women remained pregnant and carried their pregnancies to term, the proportion of fecundable women declined which, in turn, led to birth rate decline.

One hypothesis for explaining the reported declines in the birth rate is that the traditional Romanian preference for a small family was not seriously affected by the shift in legislation. In the absence of a fundamental change in motivation for limiting family size and engaging in family planning, it seems unlikely that legal restrictions on abortion, coupled with more benevolent pronatalist welfare provisions, will result in more than a short-term increase in the birth rate, a rise that apparently has been associated with increased mortality, and probably morbidity of mothers and children. The Romanian experience suggests that well-established behavioral patterns of fertility control are resistant to significantly prolonged change by governmental edict alone.

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Family Planning Patterns in Sierra Leone

THE FOLLOWING paper by Thomas E. Dow, Jr., is a sequel to his paper "Fertility and Family Planning in Sierra Leone," which appeared in *Studies in Family Planning*, Volume 2, Number 8, in August of this year. While the focus of the earlier paper was on presentation of data and interpretation of dominant trends, the present paper is more speculative in nature and attempts to identify those elements in the social structure that are indicative of the course family planning developments in Sierra Leone may take. The author, currently Associate Professor of Sociology at the State University of New York at Purchase, prepared this paper in his former capacity of Staff Associate in the Demographic Division of The Population Council.

In the first Sierra Leone report, differentials in fertility and family planning were noted by literacy, information, education, religion, marital status, geographic mobility, and tribe. On balance, however, fertility and family planning were found to be more strongly influenced by place of residence, whether metropolitan, urban, or rural, than by any other social or demographic factor. Overall, family planning prospects were thought to be quite good in the capital city of Freetown, reasonably good in other urban areas, and less favorable at the rural level. Following from these initial findings, the present paper examines some of the social, cultural, and economic patterns from which existing family planning norms have evolved and future family planning norms will emerge.

The data are derived from a sample of 5,952 currently married women and single women with children, 15-49 years of age. Single women without children and ever-married women not currently married were excluded from the sample. The sample is representative of approximately 92 percent of the total urban female population aged 15-49 and approximately 96 percent of the total rural female population aged 15-49.¹

Social Change

It would be helpful to know if the social climate in Sierra Leone is becoming more responsive to family planning. This section of the analysis explores the question of social change by examining the behavior and attitudes of women of different ages, as reported by the women in

¹ For details on how the sample was obtained, the design of the survey, and how it was conducted, the reader is referred to Thomas E. Dow, Jr., "Fertility and Family Planning in Sierra Leone," *Studies in Family Planning*, 2 (8):153-155.

response to a questionnaire. If marked trends in attitudes and behavior by age are apparent, it may be an indication that social change is taking place. However, even if we can establish a clear distinction between the reported behavior of "younger" and "older" women, this distinction will only provide reasonable inferential support for the hypothesis of social change and will not represent definite evidence of such change. First, the method of data collection, i.e., responses of women, has limitations as a measurement of actual behavior and attitudes. (Reported behavior is not necessarily actual behavior and may be influenced by interviewer or response biases not anticipated or identified in the survey.) Second, in the case of age variations, it is not always possible to distinguish between patterns that reflect demographic or life cycle variations, in which, for example, one's interest in additional children declines with age, and patterns that reflect social change. Thus, the reader must keep in mind that the data presented in this paper are frequently subject to varying interpretations, and even when they indicate a strong possibility of social change, no definite conclusions can be made. Finally, given the preliminary character of the paper and the possibility of substantial nonsampling error, no tests of significance were attempted.

Table 1 indicates the relationship between age of women and selected variables in Freetown, towns, and villages. Items 1 and 2 suggest that younger women in towns and villages are more literate and educated than older women in the same communities. The pattern in Freetown, on the other hand, is somewhat different, suggesting a dip in literacy and educational levels of women in the 30-39-year

age groups and roughly similar levels among women older and younger than these groups. This observed variation apparently reflects the fact that women presently in their 30s reached school age during World War II and, consequently, many of them were probably deprived of educational opportunities that would normally have been available in the capital.

In the case of item 3, information, only at the village level did the younger women score somewhat higher on the test than the older women. (In the ten-item information test, the respondent was asked to identify, for example, the capital of the country, its main administrative divisions, the Prime Minister, and the official language. One point was received for each correct answer. Item 3 in Table I reports the mean score for women in different age groups.) Yet, information—unlike education or literacy—may be acquired over a lifetime and, consequently, the similarity of younger and older women on this variable is difficult to interpret. It may suggest that younger women are acquiring information more rapidly than did their counterparts, and will therefore surpass them when they reach a comparable age; or it may indicate that certain experiences are essentially completed by adulthood, and that levels observed at age 20, for example, will not be appreciably modified over time. Given these different interpretations, one can only stress that on this and certain other variables, such as interest in learning more about family planning, similar attitude and behavior patterns between younger and older women do not preclude the possibility of social change. Indeed, if further development is deemed probable, it is possible to infer that this pattern in question may be undergoing change.

Thus, in item 4, it seems probable that younger women in Freetown will make at least some use of hospital facilities for subsequent deliveries and that, consequently, they will ultimately have a smaller proportion of their children born at home than women currently 40-49 years of age. In towns and villages, on the other hand, there is evidence of a possible trend away from home delivery among younger women.

Items 5 and 6 suggest a direct relationship between present age and length of breast feeding, in that younger women in Free-

TABLE 1. Selected Variables by Age, Among Women Aged 15-49, in Freetown, Towns, and Villages, Sierra Leone: 1969-1970

Variable	15-19	N	20-24	N	25-29	N	30-34	N	35-39	N	40-44	N	45-49	N	Total number
1. Percent literate															
Freetown	59.7	159	59.7	365	52.1	357	45.7	267	48.2	226	58.8	170	61.4	132	1,676
Towns	30.4	220	34.3	474	31.3	468	21.5	426	19.8	327	20.7	163	26.6	130	2,208
Villages	6.4	318	10.1	528	7.5	468	4.4	347	6.5	214	1.7	127	2.7	66	2,068
															5,952
2. Percent with one or more years of education															
Freetown	45.3	159	45.1	364	37.4	356	29.7	266	34.5	226	43.5	170	50.4	131	1,672
Towns	28.9	220	31.6	473	29.0	468	19.6	426	16.1	327	20.4	163	16.5	129	2,206
Villages	4.9	318	8.1	528	5.6	468	3.3	347	2.1	213	1.1	127	1.3	66	2,067
															5,945 ^a
3. Mean score on ten-item information test															
Freetown	4.9	159	5.0	365	4.9	357	4.5	267	4.8	226	5.4	170	5.5	132	1,676
Towns	3.5	220	3.7	474	3.9	468	3.9	426	2.9	327	4.9	163	3.6	130	2,208
Villages	1.3	318	1.6	528	1.5	468	1.4	347	1.3	214	1.1	127	1.0	66	2,068
															5,952
4. Percent of women whose living children were all born at home															
Freetown	20.2	119	19.6	331	17.8	325	19.8	243	20.0	210	19.4	160	18.6	118	1,506
Towns	34.8	145	23.9	405	24.6	440	33.6	405	35.9	315	35.5	157	40.6	121	1,988
Villages	84.5	148	88.2	389	90.0	398	92.2	300	94.9	191	94.9	114	97.4	61	1,601
															5,095 ^b
5. Mean number of months of breast feeding youngest child															
Freetown	13.4	32	15.2	164	15.5	157	15.9	144	16.8	119	16.8	121	16.4	101	838 ^c
Towns	15.8	41	15.5	173	15.9	235	16.4	232	17.0	196	17.3	128	17.8	104	1,109 ^c
Villages	17.6	56	18.9	209	18.7	247	19.0	220	20.4	143	20.5	89	21.0	54	1,018 ^c
															2,965 ^c
6. Mean number of months of breast feeding second child															
Freetown	14.8	25	15.9	185	16.6	258	16.3	209	16.7	176	17.5	140	16.5	90	1,083 ^d
Towns	16.9	27	15.7	212	16.1	328	16.8	360	16.8	272	17.4	143	18.2	104	1,446 ^d
Villages	18.0	36	18.6	249	18.6	337	19.2	264	20.3	179	21.1	103	21.5	55	1,223 ^d
															3,752 ^d
7. Mean ideal family size															
Freetown	5.4	159	5.1	364	5.2	356	5.2	265	5.1	223	4.8	169	4.7	131	1,667
Towns	5.1	220	5.1	474	5.0	468	5.6	424	5.5	326	5.2	162	5.1	130	2,204
Villages	6.0	317	6.2	527	6.5	468	6.3	346	6.8	211	6.9	127	6.8	66	2,062
															5,933 ^e

TABLE 1. Selected Variables by Age, Among Women Aged 15-49, in Freetown, Towns, and Villages, Sierra Leone: 1969-1970 (Continued)

Variable	15-19	N	20-24	N	25-29	N	30-34	N	35-39	N	40-44	N	45-49	N	Total number
8. Percent desiring additional children															
Freetown	98.1	159	90.7	365	75.9	357	64.0	267	46.9	226	36.5	170	29.5	132	1,676
Towns	99.7	220	94.3	474	78.5	468	60.9	426	49.5	327	38.1	163	29.9	130	2,208
Villages	97.7	318	96.6	528	90.9	468	80.3	347	66.7	214	54.1	127	42.9	66	2,068
															5,952
9. Percent interested in learning more about family planning															
Freetown	62.3	159	69.3	365	71.7	357	67.0	267	69.0	226	71.8	170	59.1	132	1,676
Towns	69.2	220	78.2	474	77.6	468	70.8	426	81.5	327	89.6	163	78.3	130	2,208
Villages	53.5	318	58.2	528	62.8	468	60.3	347	55.3	214	55.4	127	40.6	66	2,068
															5,952
10. Percent reporting knowledge of family planning techniques															
Freetown	68.6	159	74.2	365	77.9	357	73.8	267	71.2	226	77.1	170	74.2	132	1,676
Towns	64.6	220	82.2	474	88.3	468	85.6	426	86.4	327	83.3	163	71.9	130	2,208
Villages	66.5	318	72.4	528	80.8	468	83.7	347	81.0	214	83.3	127	79.4	66	2,068
															5,952
11. Percent reporting knowledge of coil or pill															
Freetown	33.3	159	34.5	365	37.3	357	37.1	267	32.7	226	34.7	170	29.5	132	1,676
Towns	19.0	220	25.1	474	25.7	468	20.1	426	18.1	327	17.0	163	11.9	130	2,205
Villages	1.9	318	2.2	528	0.5	468	0.7	347	1.3	214	0.6	127	0.0	66	2,068
															5,949
12. Percent reporting knowledge of mechanical-chemical methods															
Freetown	30.8	159	32.3	365	33.9	357	25.5	267	23.0	226	27.6	170	26.5	132	1,676
Towns	27.2	220	35.2	474	36.5	468	26.6	426	22.1	327	16.9	163	15.0	130	2,208
Villages	6.2	318	8.5	528	6.2	468	6.6	347	6.5	214	1.4	127	5.3	66	2,068
															5,952
13. Percent reporting knowledge of nonmechanical methods															
Freetown	18.2	159	27.1	365	30.0	357	23.2	267	32.7	226	30.6	170	25.0	132	1,676
Towns	23.5	220	33.4	474	30.6	468	30.1	426	33.2	327	30.6	163	24.6	130	2,208
Villages	43.4	318	50.8	528	54.8	468	61.8	347	61.0	214	58.8	127	54.9	66	2,068
															5,952
14. Percent reporting knowledge of traditional methods															
Freetown	35.2	159	29.9	365	36.4	357	31.1	267	33.6	226	28.8	170	26.5	132	1,676
Towns	40.3	220	55.7	474	60.7	468	63.7	426	59.2	327	57.4	163	50.5	130	2,208
Villages	60.2	318	64.4	528	73.0	468	77.4	347	69.7	214	77.4	127	72.0	66	2,068
															5,952

TABLE 1. Selected Variables by Age, Among Women Aged 15-49, in Freetown, Towns, and Villages, Sierra Leone: 1969-1970 (Continued)

Variable	15-19	N	20-24	N	25-29	N	30-34	N	35-39	N	40-44	N	45-49	N	Total number
15. Percent reporting knowledge of medical abortion															
Freetown	18.2	159	25.8	365	24.6	357	23.2	267	26.5	226	32.4	170	28.8	132	1,675
Towns	14.7	220	11.4	474	18.4	468	11.4	426	12.9	327	14.7	163	9.2	130	2,208
Villages	1.9	318	4.7	528	3.1	468	4.0	347	5.9	214	0.7	127	0.4	66	2,068
															<u>5,952</u>
16. Percent who had ever practiced family planning															
Freetown	8.2	159	16.7	365	19.0	357	23.9	267	23.5	226	23.5	170	20.5	132	1,676
Towns	3.9	220	11.0	474	13.6	468	26.7	426	9.1	327	13.5	163	15.3	130	2,208
Villages	3.9	318	3.7	528	4.3	468	*	347	2.4	214	2.3	127	1.3	66	2,068
															<u>5,952</u>
17. Percent of users employing coil or pill															
Freetown	*	13	49.2	61	36.2	69	37.8	45	48.1	52	37.5	40	40.7	27	307
Towns	*	13	24.4	70	31.0	74	26.7	65	15.8	46	2.2	20	8.7	21	309
Villages	*	12	29.8	21	8.0	20	*	17	*	6	*	2	*	1	79
															<u>695^f</u>
18. Percent of users employing native medicine or traditional abortion															
Freetown	*	13	21.3	61	36.2	69	35.6	45	25.0	52	32.5	40	22.2	27	307
Towns	*	13	59.0	70	54.3	74	57.8	65	74.1	46	87.0	20	75.1	21	309
Villages	*	12	70.2	21	80.8	20	*	17	*	6	*	2	*	1	79
															<u>695^f</u>
19. Percent who approved of family planning															
Freetown	56.0	159	65.8	365	70.0	357	61.8	267	64.6	226	68.2	170	61.4	132	1,676
Towns	65.8	220	62.8	474	64.9	468	57.4	426	68.1	327	73.6	163	73.9	130	2,208
Villages	10.9	318	11.3	528	11.1	468	10.4	347	5.3	214	8.8	127	5.3	66	2,068
															<u>5,952</u>
20. Percent who felt government should help people learn about family planning															
Freetown	73.0	159	84.1	365	80.7	357	77.2	267	83.6	226	85.9	170	80.3	132	1,676
Towns	69.6	220	62.9	474	67.0	468	64.4	426	74.1	327	83.9	163	81.4	130	2,208
Villages	29.7	318	25.8	528	31.3	468	24.9	347	21.5	214	22.2	127	7.5	66	2,068
															<u>5,952</u>
21. Percent citing economic support as best reason for having many children															
Freetown	51.6	159	50.1	365	48.5	357	53.2	267	51.3	226	49.4	170	52.3	132	1,676
Towns	47.2	220	33.8	474	41.5	468	49.4	426	46.5	327	51.7	163	49.4	130	2,208
Villages	32.3	318	37.9	528	42.1	468	39.7	347	38.7	214	37.4	127	32.6	66	2,068
															<u>5,952</u>

TABLE 1. Selected Variables by Age, Among Women Aged 15-49, in Freetown, Towns, and Villages, Sierra Leone: 1969-1970 (Continued)

Variable	15-19	N	20-24	N	25-29	N	30-34	N	35-39	N	40-44	N	45-49	N	Total number
22. Percent citing economic burden as worst thing about having many children															
Freetown	73.0	159	80.0	365	77.0	357	76.0	267	78.8	226	80.0	170	77.3	132	1,676
Towns	60.6	220	60.2	474	68.9	468	67.9	426	60.5	327	71.5	163	59.6	130	2,208
Villages	18.9	318	19.8	528	23.2	468	19.1	347	19.1	214	19.2	127	12.1	66	2,068
															5,952
23. Percent indicating that men and women tend to want the same number of children															
Freetown	24.5	159	22.7	365	21.3	357	24.0	267	25.2	226	22.4	170	27.3	132	1,676
Towns	55.4	220	67.5	474	68.6	468	66.3	426	64.4	327	69.0	163	61.7	130	2,208
Villages	74.2	318	75.3	528	73.8	468	74.0	347	75.1	214	74.8	127	80.8	66	2,068
															5,952
24. Percent indicating discussion of family size with spouse															
Freetown	38.9	108	48.6	253	53.5	312	54.9	246	56.4	204	55.0	149	49.6	119	1,391
Towns	62.0	172	52.2	353	44.7	354	45.4	359	52.6	292	44.6	155	52.9	125	1,810
Villages	46.2	303	45.8	509	51.2	467	49.4	346	49.7	214	54.6	127	35.3	66	2,032
															5,233 ^a
25. Percent indicating sin against God's will as best reason not to practice family planning															
Freetown	41.5	159	41.9	365	38.1	357	32.2	267	39.8	226	35.9	170	33.3	132	1,676
Towns	44.4	220	55.1	474	52.7	468	53.5	426	56.6	327	40.7	163	49.7	130	2,208
Villages	71.2	318	72.9	528	74.7	468	72.0	347	68.6	214	72.7	127	64.3	66	2,068
															5,952
26. Percent indicating dangers of illness or death as best reason not to practice family planning															
Freetown	46.5	159	46.0	365	47.9	357	51.7	267	44.7	226	48.8	170	50.8	132	1,676
Towns	46.4	220	36.5	474	34.2	468	34.0	426	35.0	327	49.5	163	46.2	130	2,208
Villages	20.6	318	21.4	528	17.3	468	22.4	347	25.6	214	19.7	127	22.1	66	2,068
															5,952

^a = less than 20 cases.
^b 7 women were excluded (4 in Freetown, 2 in towns, and 1 in villages) because they could not answer the question concerning education.
^c 857 women were excluded (170 in Freetown, 220 in towns, and 457 in villages) because they had no living children.
^d 2,987 women were excluded for the following reasons: 857 women (170 in Freetown, 220 in towns, and 467 in villages) had no living children; 116 (67 in Freetown, 37 in towns, and 12 in villages) did not breast feed their youngest child; 1,997 (593 in Freetown, 840 in towns, and 564 in villages) were currently breast feeding; and 17 (8 in Freetown, 2 in towns, and 7 in villages) did not answer the question.
^e 2,200 women were excluded for the following reasons: 857 women (170 in Freetown, 220 in towns, and 467 in villages) had no living children; 1,246 women (373 in Freetown, 514 in towns, and 359 in villages) had no second child; 71 women (43 in Freetown, 26 in towns, and 2 in villages) did not breast feed their second child; and 26 (7 in Freetown, 2 in towns and 17 in villages) did not answer the question.

^f 19 women (9 in Freetown, 4 in towns, and 6 in villages) were excluded because they did not indicate an ideal family size.
^g 5,257 women (1,369 in Freetown, 1,899 in towns, and 1,989 in villages) were excluded because they had not practiced family planning.
^h 719 women (285 in Freetown, 398 in towns, and 36 in villages) were excluded because they had no husbands.



TABLE 2. Mean Ideal Family Size by Number of Living Children, Among Women Aged 15-49, in Freetown, Towns, and Villages

Number of living children	Mean ideal family size					
	Freetown		Towns		Villages	
	Mean	Number	Mean	Number	Mean	Number
None born alive	5.3	130	5.6	173	6.0	292
0	5.5	39	6.3	46	6.4	173
1	4.9	372	4.8	508	6.3	360
2	4.9	329	4.7	526	6.2	376
3	5.0	267	5.1	354	6.3	289
4	4.9	224	5.6	256	6.5	219
5	5.5	134	5.9	164	6.9	168
6	5.2	100	6.2	96	7.0	113
7	6.4	39	6.9	48	7.3	48
8	5.7	21	8.4	18	6.9	16
9 or more	5.4	12	8.3	15	9.7	8
Total number		1,667 ^a		2,204 ^b		2,062 ^c

^a 9 women did not respond to the question on ideal family size.

^b 4 women did not respond to the question on ideal family size.

^c 6 women did not respond to the question on ideal family size.

town, towns, and villages tend to breast-feed their children for shorter periods than older women in the same communities. While this indicates a change in traditional patterns, the significance of this trend for family planning and fertility is more difficult to interpret. In city and towns, it apparently reflects the increasing use of contraception; while at the village level, if adequate family planning substitutes are not available, it would seem more likely to imply a reduction in birth intervals. In fact, however, additional data which have not yet been fully analyzed seem to suggest that shorter average periods of breast feeding tend to be associated with lower rather than higher fertility. One would infer from this that reductions in the length of breast feeding at all residential levels have not resulted in an increased risk of pregnancy; but rather that the protection afforded by lactation, together with the corresponding norm of abstinence, has been offset by other methods of contraception.

With regard to ideal family size (item 7), only at the village level do younger women seem to idealize fewer children than their older counterparts. If this reflects an actual change in ideal family size at the rural level, it is potentially significant; however, it is necessary to add that the reported expectations of young village women are still substantially higher than the reported expectations of city and town women of the same age. Furthermore, as Table 2 suggests, even these ideals may be modified in the light of actual reproduction. Thus, in towns and villages at least, women who find themselves with a large

number of living children may tend to adjust their family size ideals accordingly.

Items 8 and 9 (desire for additional children and interest in learning more about family planning) suggest age variations that appear to be related more to constant life cycle patterns than to social change. In the former case, there is an inverse relationship between age and desire for additional children; while in the latter case, the proportion expressing an interest in learning more about family planning tends to be higher in the middle years and lower at the beginning and end of the reproductive period.

Changing patterns in knowledge about family planning are examined in items 10-15. In general, younger women tended to report more information about modern contraceptive techniques than older women. This was true for mechanical-chemical methods in Freetown, towns, and villages; for coil and pill in towns and villages; and for medical abortion in villages only. Reported knowledge of non-mechanical and traditional methods, on the other hand, tended to follow the woman's fertility cycle, being higher in the middle years and lower at the beginning and end of the reproductive period.

The relationship between age and practice of family planning is examined in item 16. Specifically, younger rural women are more likely to report practice of family planning than their older counterparts. In Freetown and towns, the pattern is reversed, with older women reporting higher levels of practice than younger women. Of course, as the younger urban cohorts move through the reproductive

period, it is not unlikely that the proportion ever practicing family planning will increase until it ultimately equals or exceeds the present level reported by older women.

When one considers the contraceptive techniques used by those who have ever practiced family planning (items 17-18), it is clear that younger women in towns and villages are more inclined to use modern techniques, e.g., coil and pill; while older women tend to rely more on traditional methods. In Freetown, where use of coil and pill is much more frequent than in towns and villages, there is no apparent variation by age.

When attitude toward family planning is considered (item 19), we find that reported levels of approval among younger women in Freetown and towns are lower than, or comparable to, those of older women in the same communities. At best, one can suggest that these proportions may increase as the younger cohorts move through the reproductive period. Younger rural women, on the other hand, already report higher levels of approval than their older counterparts. But even in this situation, the higher approval levels reported by younger rural women are still substantially lower than the lowest approval levels reported by women in city and towns. A similar pattern is observed in item 20.

This leaves a number of situations (e.g., items 21-26) in which no clear age effect is apparent. (There is, however, some tendency in item 24 for younger women in Freetown and older women in villages to discuss family size with their spouses less frequently than women of other ages in the same communities.) The respondent's perception of the implications of high fertility, for example, (items 21-22) is not affected by age; yet metropolitan and urban women of all ages are more inclined than rural women to assign a high priority to the economic consequences of large family size. In the case of rural women, domestic, health, and status considerations tend to be more central in evaluating the advantages and disadvantages of large family size.

A similar urban-rural distinction emerges in the evaluation of family planning (items 25-26), in that rural women of all ages were more likely than metropolitan-urban women to feel that family planning was against God's will; while metropolitan-urban women were more likely than rural women to cite the dangers of illness or death as the best reason to avoid family planning.

Summary

With reference to literacy, education, length of breast feeding, ideal family size, use and knowledge of modern contraception (including medical abortion), and approval of family planning, the profile of younger rural women differed from that of older rural women. From this we may infer that change seems to be taking place at the village level, but at a rate that still leaves younger rural women far behind their urban and metropolitan counterparts. The fact that only 11 percent of the younger rural women report approval of family planning (roughly twice the level of rural women aged 45-49), as contrasted with 60-70 percent in all metropolitan-urban age-groups, is suggestive of this continuing gap between the urban and rural worlds.

Beyond the village, there were generally fewer age differentials that might indicate social change; younger women often tended to resemble older women in their characteristics and their reported behavior and attitudes. In Freetown and, to a lesser extent, in other urban areas, this may suggest either a plateau effect, in which family planning levels are fairly constant; or a situation in which family planning changes are so rapidly diffused that no significant age differentials emerge. On balance, the former position seems the more probable.

Approval-Disapproval Profiles

Given the importance of expressions of approval of family planning, and the fact that such approval is not adequately accounted for by age, it is useful to compare other characteristics of approvers and disapprovers to determine what the prospects might be for enlarging the approval universe. Table 3 provides profiles of approvers and disapprovers in Freetown, towns, and villages. (See p.217.)

In general, these findings suggest that the woman who reports approval—vis-à-vis the woman who reports disapproval—is more literate, educated, and informed; marries later²; is more likely to discuss family size with her spouse; wants a smaller family²; makes greater use of hospital facilities for delivery; has a larger number of living children³; breast feeds

² At the village level, either the above pattern was slightly reversed, or there was no difference between approvers and disapprovers.

³ At the town level, either the above pattern was slightly reversed, or there was no difference between approvers and disapprovers.

for shorter intervals; knows more about family planning in general³ and modern contraceptive techniques in particular; is more likely to believe that her spouse and parents approve of family planning and that the government should help people to learn more about contraception; and is less likely to believe that family planning is against God's will.² Finally, approvers in Freetown, towns, and villages are much more likely to have ever practiced family planning than disapprovers in the same communities.

Given these profiles, it seems clear that any general increase in the proportion of women with the above characteristics would result in an ultimate expansion of the approval universe. Social programs to expand literacy and education, increase the age at marriage, and extend hospital facilities for delivery should, therefore, have the indirect consequence of stimulating approval.

Approval and Practice of Family Planning

If approval is to be a meaningful category, it must be related explicitly to action, or family planning practice. Too often findings suggesting high levels of approval and low levels of practice are presented without any theoretical bridge to explain or justify the gap. Moreover, in the absence of such an explanation, one might suspect that expressions of approval are simply random courtesies which respondents bestow on interviewers. Were this the

TABLE 4. *Distribution of Approval and Practice Patterns, in Freetown, Towns, and Villages*

Location	Pattern	Percent
Freetown	++	16.7
	+-	48.5
	-+	1.7
	--	33.1
Number 1,667 ^a		100.0
Towns	++	10.5
	+-	56.0
	-+	1.4
	--	32.1
Number 2,132 ^b		100.0
Villages	++	2.4
	+-	7.6
	-+	1.3
	--	88.7
Number 2,068		100.0

^a 9 women did not answer the question on approval.

^b 76 women did not answer the question on approval.

case, approval would bear no systematic relationship to use and, consequently, would have no analytical or predictive value.

To examine this problem, a theoretical classification of relationships between approval and practice of family planning has been developed. In this classification, the adoption of family planning is viewed as a process and people are classified in terms of their relative position in this process. Accordingly, those who have not begun the process, i.e., those who neither approve nor practice (- -), would be considered "traditional"; those who have begun but not finished the process, i.e., those who reportedly approve but do not practice (+ -) and those who do not approve, but practice (- +), would be considered "transitional"; while those who have completed the process, i.e., approve and practice (+ +), would be considered "modern." This classification is illustrated below:

Approval	Practice	Pattern
+	+	++ Modern
+	-	+ - Transitional
-	+	- + Transitional
-	-	-- Traditional

Applying this framework to the Sierra Leone data, we obtain the distribution shown in Table 4. As would be expected, the modern proportion (+ +) declines as one moves from Freetown to towns to villages, while the traditional (- -) proportion increases. Although neither trend is surprising, the size of the traditional sector at the village level is worth noting. It suggests that at present the potential family planning market is limited to perhaps 10 percent of the rural population.

Turning to the transitional categories, it is clear that family planning practice is extremely unlikely in the absence of approval, yet reported approval is no guarantee of practice. While this latter position, that is, approval without practice, may seem to represent a serious contradiction that might discredit the use of approval levels as measures of family planning potential, it may be better understood as providing evidence of a process that is simply not yet complete.⁴ Thus, between those who approve of and practice family planning and those who do neither, there exists an expanding middle

⁴ See Thomas E. Dow, Jr., "Attitudes Toward Family Size and Family Planning in Nairobi," *Demography*, 4:2 (1967), pp. 796-797, for a further discussion of this process.

TABLE 5. *Effect of Distance From Ideal Number of Children on Selected KAP Variables, Among Women Aged 15-49, in Freetown, Towns, and Villages*

Variable	Two or more children below ideal		One or none below ideal		Above ideal		Total number
	Percent	N	Percent	N	Percent	N	
Approve of family planning							
Freetown	62.9	874	76.0	454	81.0	200	1,528 ^a
Towns	57.8	1,323	79.7	542	80.1	221	2,086 ^b
Villages	9.0	1,637	14.5	276	12.1	112	2,025 ^c
							<u>5,639</u>
Interested in learning more about family planning							
Freetown	63.5	874	78.0	454	84.5	200	1,528 ^a
Towns	69.6	1,323	89.2	542	91.9	221	2,086 ^b
Villages	53.3	1,637	72.3	276	90.8	112	2,025 ^c
							<u>5,639</u>
Have ever practiced family planning							
Freetown	14.1	874	25.1	454	33.0	200	1,528 ^a
Towns	11.4	1,323	13.7	542	9.4	221	2,086 ^b
Villages	3.1	1,637	6.0	276	6.4	112	2,025 ^c
							<u>5,639</u>
Believe government should participate in family planning activity							
Freetown	81.1	874	88.1	454	92.0	200	1,528 ^a
Towns	61.2	1,323	79.1	542	86.7	221	2,086 ^b
Villages	21.4	1,637	36.2	276	36.3	112	2,025 ^c
							<u>5,639</u>

^a 148 women were excluded from Freetown because 139 did not indicate a numerical ideal family size and 9 could not respond to the question.
^b 122 women were excluded from towns because 118 did not indicate a numerical ideal family size and 4 could not respond to the question.
^c 43 women were excluded from villages because 37 did not indicate a numerical ideal family size and 6 could not respond to the question.

ground made up of people who stand somewhere between the old and new worlds. They hold the key to population control in Sierra Leone—not merely because their adoption of family planning would be in itself demographically significant, but, perhaps even more important, because it would provide a continuing model for the less motivated to follow.⁵

Viewed in this light, we find that 48.5 percent, 56.0 percent, and 7.6 percent of the women in Freetown, towns, and villages, respectively, reported that they approved of but did not practice family planning.

This leaves the problem of trying to better understand the process whereby reported approval of these transitionals is converted into effective action. Some further considerations relating to this transition are examined in the following section.

⁵ See Thomas E. Dow, Jr., "Family Planning: Theoretical Considerations and African Models," *Journal of Marriage and the Family*, 31:2 (1969), pp. 252-256, for a fuller discussion of this subject.

KAP Variables by Distance from Desired Number of Children

If the problem is one of acquiring positive attitudes toward family planning from which a pattern of practice may emerge, it is useful to consider some of the constraints or intervening variables that may operate to prevent or limit this development. Thus, for example, women who want a specific number of children would presumably be under increasing pressure to control conception as they approach their goal. Their ability to express such pressure in a positive response to family planning is examined in Table 5.

As this Table indicates, women in Freetown, towns, and villages were more favorably inclined toward family planning as they approached, reached, or exceeded their desired family size. Yet, faced with the same subjective pressure, women in Freetown and towns showed a greater tendency than women in villages to respond favorably to family planning. Indeed, rural women under maximum pres-

sure registered levels of approval, practice, and support for government family planning activity substantially lower than those observed among metropolitan and urban women under minimal pressure.

In this illustration, then, residence—whether metropolitan, urban, or rural—apparently acts as an intervening variable, in that it limits the ability of rural women to translate subjective pressure into appropriate attitudes and behavior.

Marital Patterns

To suggest how a woman's attitudes and behavior might be affected by her husband's social and cultural characteristics, the family planning responses of women with the same tribal and literacy backgrounds as their spouses were compared with the responses of women whose backgrounds differed from their husbands'. The distribution of intra- and intertribal marriage by location is indicated in Table 6. As this Table makes clear, a majority of women at all residen-

TABLE 6. *Percentage of Women in Each Major Tribe Married to Men of the Same Tribe, Among Women Aged 15-49, in Freetown, Towns, and Villages*

Location	Tribe								Total number
	Mende		Temne		Limba		Creole		
	Percent	N	Percent	N	Percent	N	Percent	N	
Freetown	73.0	159	73.6	420	78.7	230	83.1	178	987 ^a
Towns	85.7	593	76.2	537	64.5	148	91.5	47	1,325 ^b
Villages	93.0	559	93.8	847	81.3	135	—	—	1,541 ^c

^a 210 women belonging to these tribes were not married; 479 women were members of other smaller tribes.

^b 308 women belonging to these tribes were not married; 575 women were members of other smaller tribes.

^c 27 women belonging to these tribes were not married; 500 women were members of other smaller tribes.

tial levels married within their tribal group. This pattern was most pronounced in villages and among metropolitan and urban Creoles.

When intra- and intertribal marriages were related to family planning variables (see Table 7), there was no difference in response between the two marital groups in Freetown and towns. At the village level, however, women in intertribal marriages tended to respond more favorably to family planning variables than women in intratribal unions. Thus, it is possible to speculate that an increase in intertribal marriage would be favorable for family planning developments at the village level, but such a trend is not presently in evidence.

With regard to literacy (see Table 8), it is clear that the wife's status is decisive; her response to family planning items is not affected by her husband's literacy. Specifically, literate women in Freetown, towns, and villages tended to respond in the same way to family planning items whether or not their husbands were lit-

erate⁶; similarly, the responses of illiterate women were largely the same whether or not their husbands were literate. Under these circumstances, progress will tend to be limited by the rate of literacy increase among rural women.

Occupational Status

Table 9 indicates the distribution of occupational patterns in Freetown, towns, and villages. The characteristics, attitudes, and behavior of women in each of the major occupational categories is suggested in Table 10. With reference to Freetown and towns, women in professional, clerical, and skilled activities tended to report higher literacy levels, lower family size expectations, and a more positive attitude toward family planning variables than women exclusively involved in homemaking or petty trading. Recognizing that approximately 85 percent of all urban

⁶ The small number of cases in the wife literate-husband illiterate group may explain the unusual rural finding with regard to family planning practice.

women are either homemakers or petty traders, one can readily appreciate the significance of this difference.

At the rural level, due primarily to the addition of farming activity and the "upgrading" of petty trading, the pattern is somewhat different. Specifically, women involved in housekeeping only or farming tended to respond more conservatively on family planning items than women in the professions or petty trading. As roughly 87 percent of the rural population are involved in the former activities, and only 10 percent in the latter, the significance of this distinction is clear.

In evaluating the urban and rural occupational patterns, it is evident that neither holds great promise for a rapid improvement in family planning conditions. In short, it must be assumed that the great majority of metropolitan-urban women will continue to be involved in homemaking or petty trading activities that are not likely to greatly raise existing family planning levels. Similarly, most village women will certainly continue in homemaking or farming roles that are presently associated with a general rejection of family planning. Finally, any major movement within the rural occupational structure is likely to involve an exchange or circulation between home and farm activities rather than a major shift away from these sectors. On balance, then, it seems clear that those economic sectors most closely associated with a relatively favorable family planning profile are not likely to grow rapidly in the near future.

Summary and Conclusion

To provide a picture of the place of family planning patterns in the social system of Sierra Leone, family planning items were related to specific demographic, social, and economic variables. Comparison of characteristics, attitudes, and be-

TABLE 7. *Knowledge, Attitude, and Practice Variables by Tribal Marital Patterns, Villages*

Variable and tribe of wife	Husband of the same tribe		Husband of different tribe		Total number
	Percent	N	Percent	N	
Interested in learning more about family planning					
Mende	46.3	517	51.8	42	559
Temne	50.7	791	62.5	56	847
Have ever practiced family planning					
Mende	0.2	517	8.0	42	559
Temne	4.2	791	12.5	56	847
Approve of family planning					
Mende	2.1	517	8.0	42	559
Temne	12.7	791	34.6	56	847

TABLE 8. *KAP Variables by Marital Literacy Patterns, Among Women Aged 15-49, in Freetown, Towns, and Villages*

Variable	Both wife and husband literate		Wife literate, husband illiterate		Wife illiterate, husband literate		Both wife and husband illiterate		Total number
	Percent	N	Percent	N	Percent	N	Percent	N	
Interested in learning more about family planning									
Freetown	73.2	642	77.3	22	61.7	308	58.1	415	1,387 ^a
Towns	82.6	424	85.6	28	71.2	588	72.5	770	1,810 ^b
Villages	68.9	102	56.0	17	44.0	281	59.8	1,632	2,032 ^c
Have ever practiced family planning									
Freetown	24.5	642	31.8	22	11.7	308	10.8	415	1,387 ^a
Towns	17.7	424	14.0	28	9.0	588	7.5	770	1,810 ^b
Villages	10.5	102	0.0	17	1.0	281	3.5	1,632	2,032 ^c
Approve of family planning									
Freetown	74.9	642	68.2	22	53.6	308	51.1	415	1,387 ^a
Towns	73.7	424	69.5	28	61.7	588	58.9	770	1,810 ^b
Villages	17.4	102	16.3	17	11.3	281	9.0	1,632	2,032 ^c
Believe government should help people learn about family planning									
Freetown	86.6	642	86.4	22	73.7	308	72.3	415	1,387 ^a
Towns	77.2	424	66.5	28	67.9	588	63.4	770	1,810 ^b
Villages	40.2	102	36.5	17	21.6	281	25.8	1,632	2,032 ^c

^a 285 women were not married; and 4 married women did not respond to the question on husband's literacy.

^b 398 women were not married.

^c 36 women were not married.

behavior of younger and older women suggested the possibility of social change in which younger women were moving toward a position more positive to family planning. However, significant indications of such a trend were only apparent at the village level, and the trend still left younger rural women far behind their metropolitan and urban counterparts.

A similar rural-urban distinction was apparent in the comparison of family planning approval-disapproval profiles, in that for any given social variable the proportion reporting support for family planning was substantially higher in city and towns than villages. Still, an expansion of the approval universe at all residential levels would be anticipated if certain social programs in literacy or educational development, for example, were carried out. But even under these circumstances, the impact in terms of approval and practice of family planning would apparently continue to be greater in urban than rural areas.

Moreover, it was clear that even an expansion of the approval universe would not necessarily result in a comparable increase in family planning practice: 48.5 percent, 56.0 percent, and 7.6 percent of

the women in Freetown, towns, and villages, respectively, reported approval of, but did not practice family planning. This condition may be thought of as a transitional state in the family planning process, and it is to be expected that such marginality will tend to be resolved eventually by the increasing adoption of contraception.

Yet even if this progression is assumed, it must be viewed against the following

background: 33.1 percent, 32.1 percent, and 88.7 percent of the women in Freetown, towns, and villages, respectively, did not express approval of and did not practice family planning. Furthermore, as the analysis of subjective fertility pressure suggests, intervening variables such as rural residence may limit a woman's ability to translate her desire for fertility control into either approval or practice of

TABLE 9. *Occupational Status of Women Aged 15-49, by Location, Freetown, Towns, and Villages*

Occupation	Percent		
	Freetown	Towns	Villages
Housekeeping only	52.0	59.4	18.9
Professional	2.6	3.6	1.1
Managerial	0.1	0.1	0.0
Clerical	3.3	2.1	0.1
Retail trading	34.4	26.1	9.1
Sales	0.4	0.2	0.0
Farming	0.2	1.4	68.4
Skilled labor	6.3	6.7	2.1
Semi-skilled labor	0.2	0.1	0.2
Unskilled labor	0.5	0.3	0.1
Total percent	100.0	100.0	100.0
Number	1,676	2,208	2,068

TABLE 10. Selected Variables by Occupational Status of Women Aged 15-49, in Freetown, Towns, and Villages

Variable	Profes- sional	N	Cler- ical	N	Skilled	N	No job outside the home	N	Retail trading	N	Farming	N	Total number
Percent literate													
Freetown	100.0	43	98.2	55	82.9	105	54.0	872	41.1	579	*	3	1,657 ^a
Towns	100.0	82	92.8	48	46.8	166	24.0	1,253	14.7	614	0.0	25	2,188 ^b
Villages	100.0	21	*	2	49.2	41	9.9	388	8.6	196	2.7	1,413	2,061 ^c
Mean ideal family size													
Freetown	3.9	43	4.0	55	4.4	105	5.1	866	5.5	576	*	3	1,648 ^d
Towns	3.9	82	4.3	48	5.1	166	5.1	1,253	6.0	612	4.7	25	2,186 ^e
Villages	5.6	21	*	2	6.4	41	6.6	388	6.0	196	6.4	1,407	2,055 ^f
Percent who													
Want to learn more about family planning													
Freetown	90.7	43	89.1	55	81.9	105	64.4	872	67.2	579	*	3	1,657
Towns	96.5	82	89.3	48	86.4	166	75.9	1,253	73.2	614	32.5	25	2,188
Villages	65.5	21	*	2	43.7	41	49.1	388	71.1	196	58.7	1,413	2,061
Ever practiced family planning													
Freetown	51.2	43	58.2	55	36.2	105	14.2	872	15.0	579	*	3	1,657
Towns	21.2	82	39.1	48	24.1	166	9.0	1,253	10.9	614	5.0	25	2,188
Villages	42.2	21	*	2	7.4	41	3.9	388	8.4	196	2.2	1,413	2,061
Approve of family planning													
Freetown	90.7	43	94.5	55	83.8	105	61.5	872	61.3	579	*	3	1,657
Towns	76.0	82	67.4	48	71.8	166	64.7	1,253	59.8	614	83.0	25	2,188
Villages	33.8	21	*	2	11.0	41	12.7	388	14.4	196	8.0	1,413	2,061
Believe government should help people to learn about family planning													
Freetown	97.7	43	100.0	55	92.4	105	80.0	872	77.2	579	*	3	1,657
Towns	76.9	82	61.1	48	74.8	166	69.1	1,253	66.5	614	79.4	25	2,188
Villages	29.3	21	*	2	33.8	41	22.6	388	44.6	196	24.2	1,413	2,061

* = less than 20 cases.

^a 19 women were engaged in administration, sales, semi- or unskilled economic activity.

^b 20 women were engaged in administration, sales, semi- or unskilled economic activity.

^c 7 women were engaged in administration, sales, semi- or unskilled economic activity.

^d 9 women did not answer the question on ideal family size.

^e 2 women did not answer the question on ideal family size.

^f 6 women did not answer the question on ideal family size.

family planning. Once again, the problem appears to be greater in rural than in urban areas.

Finally, it is also clear that the transition from traditional to modern family planning positions is not going to be facilitated by present or prospective occupational patterns. For the foreseeable future,

most women in Freetown, towns, and villages will remain in economic or domestic roles that are unlikely to alter substantially their family planning position.

On balance, the above picture tends to highlight the difficulties that are to be expected in the transition to greater approval and practice of family planning.

And, as such problems are apparently intensified in rural areas, national family planning developments are bound to be slow. This will be particularly so, one might add, under present mortality conditions, which tend to deny women at all residential levels the number of living children they would prefer.



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