

CONTRACEPTIVE PREVALENCE SURVEYS

FURTHER ANALYSIS REPORT

FAMILY PLANNING AND FERTILITY IN THE
SOUTH OF THAILAND WITH A SPECIAL
EMPHASIS ON RELIGIOUS DIFFERENTIALS:
AN ANALYSIS OF DATA FROM THE
1981 CONTRACEPTIVE PREVALENCE SURVEY

BY

PEERASIT KAMNUANSILPA
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Westinghouse Health Systems
Post Office Box 866
Columbia, Maryland 21044
U.S.A.

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Family Planning and Fertility in the South of Thailand with a Special
Emphasis on Religious Differentials: An Analysis of Data from the
1981 Contraceptive Prevalence Survey

EXECUTIVE SUMMARY

The present report presents information on fertility and family planning in the southern region of Thailand based on the second Contraceptive Prevalence Survey (CPS2) conducted in 1981. The available data permit a comparison of the situation of the South and the situation in Thailand as a whole as well as a comparison within the rural South of Moslems and Buddhists.

Within the rural South, Moslem women when compared to Buddhists, (1) marry at an earlier age (although their age at first marriage appears to be increasing faster than for Buddhists), (2) are characterized by higher current fertility, (3) have a more limited knowledge of most contraceptive methods, (4) practice contraception considerably less, (5) rely more on non-modern methods, especially withdrawal, and (6) appear to have a larger unmet need for family planning services particularly for spacing births. Attitudes are generally favorable towards family planning among the large majority of both Moslems and Buddhists in the rural South. Government outlets are the primary source for women in both groups. Evidence on fertility preferences, appear to point to a preference for more children among Moslems than Buddhists especially in terms of the lower proportion indicating a wish to stop childbearing at their present stage of family building. Considerable interest in spacing births is evident for both religious groups although more so among Moslems than Buddhists.

Southern Buddhist women differ from women in the rest of the country in many of the same respects that Moslems differ from Buddhists in the rural South. Thus in comparison to the national average, rural southern Buddhist women (1) have higher fertility preferences, (2) more interest in birth spacing, (3) experience higher current fertility, (4)

practice family planning less and (5) have a larger unmet need for contraceptive methods. They do not differ markedly, however, with respect to age at marriage or knowledge of contraception. Moreover, both southern Buddhists and Moslems rely more heavily on traditional methods of birth control, especially withdrawal, than couples in the rest of the country.

The lag in prevalence between the South and the rest of Thailand is about equally attributable to Buddhists and Moslems and thus any effort to raise prevalence to the national level would do well to focus on both groups. The data do not point to any insurmountable barriers towards increased use of contraception in the South among women of either religion but do suggest that higher fertility preferences may eventually set a lower limit on the extent of contraceptive prevalence in the region compared to elsewhere.

One finding of the CPS2 that would be particularly worth pursuing in terms of its implication for the National Family Planning Program is the apparent interest in birth spacing, especially among Moslems but also among southern Buddhists. In general, the national programme tends to emphasize the importance of family planning for limiting family size in its slogans and messages. Perhaps Moslems would be more receptive if emphasis were placed instead on the contribution of family family planning methods to facilitating birth spacing.

Introduction

Within a remarkably short period of time, Thailand's population has experienced a major transformation in its reproductive behavior. Between the late 1960's and the early 1980's marital fertility declined by approximately 40 percent nationally while current contraceptive use increased from under 15 percent to almost 60 percent. These changes have permeated both the rural and the urban population as well as all broad educational and income strata in the society. At the same time, however, distinct regional and religious differences have emerged in the timing and extent of reproductive change (Knodel et al., 1982).

Prior to 1975 most of the decline in fertility was concentrated in the North and Central regions. Levels of contraceptive use in 1975 were substantially lower and fertility substantially higher in the Northeast and South (Thailand Panel, National Research Council, 1980). Since 1975, the Northeast has also experienced rapid fertility decline and increasing contraceptive prevalence so that by 1981 differences between that region and the North and Central regions had diminished considerably (Kamnuansilpa and Chamrathirong, 1982). In contrast, most evidence points to a continuing lag in the South in terms of reproductive change, although data for the region usually suffer from small sample size and thus are less consistent and more uncertain than data for other regions. Reports on new acceptors from the National Family Planning Program also indicate acceptance rates for the South considerably lower than the national average (Research and Evaluation Unit, 1983).

One of the distinctive features of the South is the concentration of most of the Islamic population of Thailand in that region and in particular in the southernmost four provinces, where Moslems constitute the majority of the population. According to the 1970 census, over 90 percent of the Thai population are Buddhist and about 5 percent are adherent of Islam, the second most common religion. About 80 percent of all Moslems, however, live in the South and thus the proportion of the Southern population professing Islam is above one quarter, far higher

than the national average. Within the South, the Islamic population is largely concentrated in the four southernmost provinces of Naratiwat, Pattani, Satun and Yala where two-thirds of all southern Moslems reside.

There is considerable evidence indicating that fertility reduction and concomitantly contraceptive prevalence are particularly low in the four southernmost provinces and probably among the Moslem population in general. In 1981, for example, two of the four predominantly Moslem provinces exhibited the lowest acceptance rates in the entire country according to service statistics and the other two provinces were characterized by rates well below the national average (Research and Evaluation Unit, 1982). Moreover data emerging from the 1980 census confirm the lagging position of the four predominantly Moslem provinces in terms of contraceptive prevalence. The results of the question on current contraception use included in the census indicate that of the 14 southern provinces, the four lowest prevalence rates are in the four predominantly Moslem ones (Pejaranonda, 1983). In addition, a number of sample surveys have also confirmed lower contraceptive usage among the Moslem population compared to the Buddhist population in the South (Knodel, et al., 1982). The low prevalence rate and the lagging fertility decline in the South, however, are not necessarily solely a result of the Moslem population. Southern Buddhists may also differ from Thais in other regions in terms of reproductive behavior. Thus there may be both a regional and a religious effect.

Given the Thai government's commitment to reduce the population growth rate and to foster family planning, areas and population subgroups which lag behind the national average in terms of fertility decline and contraceptive prevalence are of special interests. The objective of the present study is to compare fertility and family planning in the southern region with the national situation as well as to examine differences between the Buddhist and Moslem populations in the South. The results will hopefully be of use in determining the extent to which special efforts need to be directed towards the South and Moslems in particular in order to increase contraceptive use and hasten fertility decline. Data for the present study come from the second Contraceptive Prevalence

Survey (CPS2) conducted in 1981 by the National Institute of Development Administration (NIDA) in collaboration with the Family Health Division of the Ministry of Public Health under contract with Westinghouse Health Systems. This survey is the most recent national sample survey that provides information on fertility and family planning currently available (as of March 1983). Fieldwork was carried out between late March and early June of 1981. Information about the survey methodology and questionnaire as well as presentation of overall results can be found in a separate report (Kamnuansilpa and Chamrathirong, 1982).

Determining Religion

A question regarding the respondent's religion was not included in the interview schedule of CPS2. Given the focus of the present study on the southern region of Thailand and the fact that a large Moslem minority lives in that region, an attempt has been made to determine the religion of respondents from information external to the survey. Since most villages in the South tend to be homogeneous with respect to religion, the respondent's religion can be determined with a fair degree of certainty by determining the predominant religion of the village. Urban areas are less homogeneous in terms of religion and thus the effort to determine religion has been limited to rural respondents.

Two different sources of external information have been used: 1) responses to a questionnaire sent to each village headman in the sample villages in the South by the principal investigator; 2) information on village characteristics collected by the National Statistical Office (NSO) through an annual survey of village headmen. The questionnaire sent out by principal investigator to the 40 sample villages asked about the religions composition of the village and requested a percentage distribution of the religions represented in the village. At the time of analysis, 30 of the 40 villages had returned the questionnaire. Survey data on the predominant religion as well as the number of Buddhist temples and Moslem mosques was available from the 1981 NSO questionnaire for all forty villages. The NSO information, however, does not indicate what percent of the population belonged to the predominant religion.

From the two sources of information, we are able to classify respondents with a fair degree of certainty as to whether they live in an overwhelmingly Buddhist, overwhelmingly Moslem or mixed religion village. The classification is made in the following ways. For the 30 villages for which questionnaires were returned to the principal investigator, the data on religious composition were used. Villages in which 85 percent or more of the village population was indicated as one religion were classified as belonging overwhelmingly to that religion; villages where 14 to 84 percent belonged to one religion were classified as mixed. In fact, for most villages, 95 to 100 percent were reported as belonging to the same religion. For the ten villages for which only NSO data were available, one with both a Buddhist Temple and a Moslem mosque were classified as mixed. The remaining nine villages were classified as being overwhelmingly of the religion that NSO listed as the predominant religion. An appendix provides the information on religious classification for the villages and the classification in which each village was placed. It is worth noting that for the 30 villages for which information was available from both sources, the two sources agreed extremely well.

The final result of our efforts to classify the 40 sample villages in the South by religion yielded 19 villages classed as overwhelmingly Buddhist, 17 as overwhelmingly Moslem and 4 as mixed. Based on the information just discussed, it is clear that almost all respondents living in villages classified as predominantly of one religion or the other belonged to that religion and thus the village religion can be treated as the respondent's religion with minimum risk of assigning the individuals the wrong religion. This is not true of course for respondents living in mixed villages.

Sample Size and Presentation of Results

The CPS2 sample consisted of interviews with 7,038 ever-married women aged 15-49 years. Of these, 869 lived in the South of Thailand. The religion of the village is available for rural respondents in the South (all other respondents can be safely assumed to live in overwhelmingly Buddhist villages). Of the rural southern sample, 472 respondents lived

in overwhelming Buddhist Villages, 260 in overwhelming Buddhist Villages, and 37 in mixed religion villages. Given the small number of cases in the mixed category and the impossibility of determining their religion with any certainty, they are left out of the comparisons of results which relate to religion. Indeed, the sample size for the entire South and even more so for southern rural Buddhists and Moslem villagers are rather small. Thus the results of the present report should be considered only suggestive. Clearly studies based on larger sample sizes are needed before generalizations about the South in its entirety or about Buddhist-Moslem differentials in the South can be made with confidence. In the present paper, results in each table are shown for the national sample, the entire southern sample and for the rural respondents in the South by the predominant village religion (excluding mixed villages).

Background Characteristics

Selected background characteristics of the sample are shown in Table 1. According to the selection of the sample, only ever-married women in the reproductive ages were included in the study and thus all the women are under age 50. There is little difference between the national and southern samples with respect to age distribution, but Buddhists and Moslems in the rural South are noticeably different from each other. In particular Moslems are more concentrated at the younger age groups than are Buddhists. This is undoubtedly a function of the earlier age at marriage for Moslems compared to Buddhists (see below): since the sample is limited to ever-married women only, Moslems will be more represented in younger age groups and thus correspondingly less in older age groups. The difference in the age distribution is also reflected in the younger mean age of Moslems than Buddhists.

Age at first marriage was asked of all respondents. It is thus possible to classify respondents according to the duration of time since they first married. Since information about the timing of marital dissolution and remarriage was not collected, it is not possible to adjust marriage duration by deducting for time spent between or following

Table 1

Percentage Distribution of Ever-Married Women 15-49 years by Selected Background Characteristics

Age	National	South	Rural South	
			Buddhist	Moslem
Percent distribution				
under 20	4	4	2	8
20-24	16	14	12	18
25-29	21	18	16	22
30-34	19	20	21	20
35-39	16	16	18	11
40-44	15	17	18	14
45-49	10	10	13	8
Total	100	100	100	100
Mean age	32.5	33.1	34.5	30.9
Duration since first marriage				
Percent distribution				
0-4	23	18	17	18
5-9	22	20	18	21
10-14	17	19	20	19
15-19	15	16	17	14
20-24	13	13	14	12
25+	10	14	15	16
Total	100	100	100	100
Mean duration	12.3	13.6	14.0	13.8
Years of schooling of woman				
Percent distribution				
none	9	19	9	22
1-3	8	7	8	8
4	70	63	75	65
5-10	9	7	6	3
11+	4	4	2	3
Total	100	100	100	100
Mean years	4.4	3.9	4.0	2.5
Years of schooling of husband				
Percent distribution				
none	5	12	3	31
1-3	4	6	4	12
4	68	61	76	48
5-10	14	14	12	9
11+	9	6	4	1
Total	100	100	100	100
Mean years	5.3	4.6	4.7	3.0
Occupation of woman				
Percent distribution				
farming	58	59	82	38
professional	3	4	2	0
sales, business	11	11	7	12
skilled and semi-skilled	3	2	1	5
laborer, servant	8	12	4	28
housewife	16	12	4	17
other	1	0	0	0
Total	100	100	100	100

unions for respondents who were not continuously in a union since their first marriage. Nevertheless, duration since first marriage should be a reasonable estimate of the amount of time a woman was exposed to the risk of childbearing while in a marital union, especially for women still currently married, since time spent between marriages for women who remarry is characteristically brief in Thailand (Knodel et al., 1982). In general, the average duration since first marriage is slightly longer in the southern sample than in the national sample but little difference is evident between rural southern Buddhists and Moslems.

The educational distribution of the sample reveals differences between the South and the national sample, between husbands and wives and between the two religious groups. For both sexes, southern respondents have somewhat lower education than is the true nationally. For both religions, the average number of years of schooling is lower for wives than for husbands although for Moslems a higher proportion of husbands have no education than wives. More striking, however, are the religious differentials particularly with respect to the proportion with no education which is far higher regardless of sex for Moslems than for Buddhists. Correspondingly the latter show a far higher proportion going beyond 4 years.

The occupational distribution of women nationally and in the South according to the survey are quite similar. The majority of each are engaged in farming. Considerable difference between rural southern Buddhists and Moslems, however, are apparent. A far higher proportion of Buddhist women are engaged in farming than are Moslem women. The latter in turn are more concentrated in the laborer, servant (reflecting employment on rubber plantations) and the housewife categories.

Given the importance of the National Family Planning Programme as a source of family planning methods in Thailand and the fact that the programme operates mainly through the government network of health centers and hospitals, it is of interest to determine if there are differences in the general utilization of these outlets for health care. Of particular interest is whether or not Moslems, given their minority

status in Thailand, avoid use of government health outlets given the close identification of the central government with the Buddhist majority. Responses to a question included in CPS2 about where health care is normally sought when a household member is sick provides such information. Results shown in Table 2 indicate that the large majority of respondents, nationally, in the South and of both religions, answered that they normally turn to the government network of health outlets and that only a minority go to the private or traditional sector. Indeed in the South, the percent who turn to private doctors or clinics, or to drugstores, the major private sources of health care, is noticeably smaller than is true nationally. More reliance, however, appears to be placed on Tambol (sub-district) health centers in the South than nationally. Overall, Buddhists and Moslems in the rural South differ relatively little in where they indicate they go for health care. According to the results of the CPS2, Moslems seem no less reluctant to use government health facilities than do Buddhists. Actual use patterns may of course differ from the pattern indicated in response to the hypothetical question on which the results just discussed are based.

Marriage Patterns

The mean age of first marriage is shown in Table 3 for all respondents as well as for women over 25 and over 30. Data on age of marriage for respondents of all ages taken collectively tend to understate the true age of marriage in the population since they are from a cross-section of married persons and exclude persons from younger cohorts who have yet to marry.¹ Nevertheless, differences between the South and the national average and differences between two religious groups should be accurately reflected in these calculations provided the bias does not differ substantially by religion. The bias can also be largely eliminated

¹The problem arises because only the age of marriage of persons already married are included in the calculation of the mean age at marriage. Since some of those not yet married will eventually marry, and since they will do so at ages older than the ages at which those already married did so, the true age of marriage of all who eventually marry will be older than that shown in Table 3.

Table 2

Percent Distribution of Ever-Married Women 15-49 Years by Place Where Health Care is Normally Sought

<u>Place</u>	<u>National</u>	<u>South</u>	<u>Rural South</u>	
			<u>Buddhist</u>	<u>Moslem</u>
Tambol Health Center	19	31	35	32
District Health Center	5	20	24	21
Provincial or Other Hospital	36	25	19	30
Private Doctor or Clinic	20	14	13	7
Para-medical Personnel	1	3	4	0
Traditional Healer	0	1	0	2
Drugstore	14	5	5	7
Other	5	1	0	1
Total	100	100	100	100

Table 3

Selected Aspects of Marriage Patterns, Ever-Married Women 15-49 Years

Mean reported age at first marriage	National	South	Rural South	
			Buddhist	Moslem
Among all women	20.0	19.2	20.2	16.6
Among women 25+	20.4	19.6	20.6	16.6
Among women 30+	20.6	19.8	20.8	16.4
Mean age at first marriage among women marrying through age 30 by year of marriage				
1961-65	19.7	19.0	19.7	16.1
1966-70	19.9	19.2	20.8	15.9
1971-75	20.1	19.4	20.4	17.1
1976-81 ^a	20.4	20.0	20.5	18.2

^aIncludes marriages for 1981 only up to the time of survey (April - June).

by restricting the calculation of age of marriage to respondents who are above the age at which most first marriage occurs. Thus separate results are given for women over 25 and over 30. The results clearly point to a younger age of marriage for Moslems than for Buddhists. The younger age of marriage in the South compared to the national situation appears to be due to the Moslem influence since rural southern Buddhists are characterized by an average age of marriage similar to the national average.

In order to examine trends in the age at first marriage, the mean age at first marriage can be calculated according to the year of occurrence. One problem with this approach is created by the fact that only women up through age 49 are included in the sample. As a result, the distribution of ages at first marriage is progressively truncated at the upper end the further back in time the mean age at first marriage is estimated. Thus any women married after age 45 in 1977, after 40 in 1972, after age 35 in 1967 and so on would be excluded from the sample since they would all be over age 49 in 1981, the year of the survey. In order to avoid biasing the trend in age at first marriage, all women marrying for the first time after age 30 are excluded from the calculations and only results for the period from 1961 to 1981 are presented.² The exclusion of women marrying after age 30 results in only a minimal understanding of age at first marriage since few women in Thailand marry for the first time after this age.

The results point to a gradual but steady increase in age at first marriage for women at the national level and in the South during the two decades covered. The increases in the South, however, at least during the last decade and a half appears to be largely attributable to Moslems as indicated by the approximately two year increase in the average age at first marriage for rural southern Moslems between the 1960's and the

²Note that a woman age 20 in 1961 would be age 49 in 1981 and thus still be included in the sample but that women 30 or over in 1961 would be excluded.

1967-81 period in comparison to a more erratic trend for the Buddhists. The gap in the average age of first marriage, between the two religious groups, while still pronounced, appears to be narrowing.

Fertility Preference and Behavior

Several indices of fertility preferences are available from questions included in the CPS2 questionnaire. Respondents were asked if they wished to have additional children, if they had wanted to have an additional child at the time of last pregnancy, and how many children they would like to have if they could have just the number they wanted. Probably responses to the first type of question are easiest to interpret in a straightforward way. Questions about desire for more children at the time of last pregnancy, the second type of question, may be susceptible to both recall error and rationalization while responses to the third type of question, on the desired number of children are likely to be influenced by the rationalization of current family size. Women who indicated they wanted additional children were asked how many more they wanted and how soon they wished to have the next one. Thus considerable information on fertility preferences can be examined to determine if the South differs from the rest of the country in demand for children and whether or not religious differentials exist.

Table 4 indicates the percent of currently married women who want no more children according to duration of marriage and number of living children. In the rural South higher proportions of Buddhist women express a desire to stop childbearing than Moslem women in every marriage duration category and at all numbers of living children from two onwards. In addition, Buddhists in the South with three or four children are less likely to want to have no more children than is true nationally. For the entire population, almost two-thirds of women with two living children indicate they want no more children while only just over one third of Buddhist women and less than one-fifth of Moslem women in the rural South do so. While over 90 percent of Buddhist women with four children indicate they wish to cease childbearing less than 60 percent of Moslem women with four children express a desire not to have more.

Table 4

Percent Wanting no More Children by Duration Since First Marriage,
and Number of Living Children - Currently Married Women 15-49 Years

<u>Duration Since First Marriage</u>	<u>National</u>	<u>South</u>		
0-4	23	12	10	9
5-9	57	39	40	24
10-14	80	72	84	53
15-19	88	75	85	50
20-24	95	85	95	74
25+	94	87	97	72
Total	66	59	67	44
<u>Living Children</u>				
0	9	6	(0) ^a	(6) ^a
1	19	9	6	10
2	63	34	36	19
3	84	68	68	56
4	93	82	91	59
5+	93	89	96	73
Total		59	67	44

^aResults in parentheses are based on less than 20 cases.

The percent who indicated they did not wish to have another child at the time of last pregnancy is shown in Table 5 according to duration of marriage and number of living children. Given the expectation that women might wish to rationalize their pregnancy ex post facto, a surprisingly high proportion indicated they did not want to become pregnant the last time they did so. Moreover the fact that the percent so responding increases sharply with marriage duration and number of living children gives added confidence that the responses genuinely reflect fertility desires.

Within the rural South, Moslem women overall are characterized by lower proportions indicating they did not want a child at the time of their last pregnancy than are Buddhists. However, this is mainly due to sharp differences at higher marriage durations and among women with five or more children. Among women married less than ten years and among women with less than five children somewhat higher proportions of Moslems indicated they did not wish to have children at the time of their last pregnancy.

The data on desire for additional children at the time of interview and desire for more children at the time of last pregnancy both indicate a greater demand for children in the South than in the nation as a whole. The results are less consistent, however, with respect to religious differentials in the South. Moslem women are clearly less likely to indicate they wish to cease childbearing than are Buddhist women but there is a less pronounced and less consistent difference between the two groups with respect to reports on the desire for the last pregnancy. Part of the difference may reflect a recent change since desire for additional children at time of interview refers to a more recent period than does desire for children at the time of last pregnancy. Possibly demand for children has declined recently among Buddhists but not (or less so) among Moslems. In any event, as mentioned above the data on desire for additional children at the time of interview are probably a better indicator of demand for children since it is unlikely to be influenced by recall error and rationalization. It thus seems likely that demand for children at least at present is greater among Southern Moslem women than among Southern Buddhist women.

Table 5

Percent Wanting no More Children at the Time of Last Pregnancy by Duration Since First Marriage, and Number of Living Children 15-49 years

<u>Duration Since First Marriage</u>	<u>National</u>	<u>South</u>	<u>Rural South</u>	
			<u>Buddhist</u>	<u>Moslem</u>
0-4	12	3	3	3
5-9	22	14	8	17
10-14	29	26	29	26
15-19	40	35	40	24
20-24	50	38	35	45
25+	59	50	58	32
Total	32	27	30	24
 <u>Living Children</u>				
0-1	9	5	4	4
2	20	9	5	12
3	29	20	16	23
4	42	29	26	36
5+	65	54	59	40
Total	32	27	30	24

Women who indicated they wanted more children were asked how soon they would like to have their next child. The distribution of responses are shown in Table 6 for non-pregnant women.³ A substantially higher proportion of women in the South than nationally indicate they wish to wait at least two years before having their next child. Moreover, an even higher proportion of Moslem than Buddhist women in the rural South express a desire to postpone their next birth. Thus an interest in spacing births (at least as indicated by the desired timing of the next birth) is expressed by the majority of southern women wanting another child, is higher in the South than elsewhere, and is especially high among Moslem women.

Data on the number of children a woman would like to have if she could have just the number she wanted, are presented in Table 7 by marriage duration. The average preferred number of children is larger for respondents in the South than nationally at all marriage durations. In the rural South, Moslems express a desire for more children than Buddhists at shorter and intermediate durations but not at longer durations. However, over all both southern Buddhists and Moslems express a higher average preferred number of children than women nationally. The fact that the religious differential changes direction at longer marriage durations may reflect contrasting patterns of change experienced by the two religious groups over recent years. For example, fertility preferences may have declined among younger cohorts of Buddhists compared to older cohorts but have remained stable for Moslems during the last decade or so. Given the cross-sectional nature of the data it is difficult to interpret definitely the source of the apparent interaction between marriage duration and religion with respect to preferred number of children. It is worth noting, however, that this measure of fertility preference tends to be influenced by the rationalization of existing children, an effect which is more important at more advanced stages of

³ Pregnant women were asked this question if they wished another child in addition to the one they were expecting. Since they obviously must wait until the current pregnancy came to term before having another child and this thus complicates interpretation of results, pregnant women are excluded from the results.

Table 6

Desired Timing of Next Child Among Currently Married 15-49 Non-Pregnant Women Wanting at Least One Additional Child

<u>Desired Timing</u>	<u>National</u>	<u>South</u>	<u>Rural South</u>	
			<u>Buddhist</u>	<u>Moslem</u>
As soon as possible	20	22	25	17
Within one year	7	3	1	3
Within two years	13	11	8	12
After at least two years	45	60	59	66
Up to God or fate	6	3	4	2
Depends on economic situation	7	0	0	0
Other, don't know	2	2	2	0
Total	100	100	100	100

family building. As indicated below, at the longer marriage durations, Buddhists are characterized by larger numbers of children ever born. The higher preferred family sizes for them may reflect therefore the effect of rationalization. At younger marriage durations, rationalization is less likely to have a major impact since a higher proportion of women of either religion will not yet have exceeded the number of children they would like to have. Thus it is particularly significant that among marriage cohorts still in the most active family building stages, Moslem women in the rural South wish to have more children than their Buddhist counterparts. It is uncertain whether this represents a new situation or one which also existed in the past. If the reversal of this differential for the older marriage cohorts is not solely a product of different degree of rationalization, it would appear that the situation may indeed have differed just a generation ago.

The mean number of children ever born, a measure of cumulative fertility, as well as living children and the expected number of children (the present number of living children plus the additional number wanted) are also shown in Table 7 by duration of marriage.⁴ Differences in these measures between the two religious groups differ according to the particular duration category. Differences between Buddhists and Moslem with respect to children ever born and living children tend to be relatively small at the earlier and intermediate marriage duration categories. For the higher duration categories the differences are more pronounced and consistently point to higher fertility among the Buddhists. The expected number of children for Buddhists is also higher than for Moslems at the longer marriage durations (where it depends heavily on actual family size) but tends to be lower than for Moslems at the shorter and intermediate duration (where additional desired children are a stronger component of the measure). It is not possible to determine with any precision from the present data what factors underly this somewhat complex set of fertility differentials. The possibility that the extent

⁴Widowed, divorced and separated women were assumed to want no more children for the purpose of this calculation.

Table 7

Preferred Number of Children, Number of Children Ever-Born, Number of Living Children and Expected Number of Children by Duration Since First Marriage Ever-Married Women 15-49 years

	Duration Since First Marriage						All Durations	
	0-4	5-9	10-14	15-19	20-24	25+	Unstand-ardized	Stand-ardized ^a
Preferred Number								
National	2.4	2.6	2.9	3.2	3.9	3.6	2.9	2.9
South	3.0	3.4	3.7	4.1	4.1	4.5	3.7	3.7
Rural South								
Buddhist	3.1	3.2	3.6	3.9	4.6	4.6	3.8	3.7
Moslem	3.3	3.9	4.0	4.9	3.8	4.6	4.0	4.0
Children Ever-Born								
National	1.1	2.2	3.2	4.3	5.5	6.8	3.3	3.3
South	1.1	2.5	3.8	4.8	5.5	6.7	3.9	3.7
Rural South								
Buddhist	1.2	2.4	4.0	4.9	5.9	7.4	4.2	3.8
Moslem	1.0	2.5	3.6	5.1	5.3	5.5	3.6	3.4
Living Children								
National	1.0	2.1	2.9	3.0	4.8	5.7	3.0	3.0
South	1.1	2.3	3.5	4.3	5.6	5.8	3.5	3.2
Rural South								
Buddhist	1.2	2.4	3.7	4.5	5.4	6.5	3.8	3.4
Moslem	0.9	2.2	3.2	4.3	4.6	4.8	3.1	3.0
Expected Number								
National	2.5	2.8	3.3	4.1	4.9	5.8	3.6	3.6
South	3.1	3.4	3.9	4.8	5.2	6.0	4.3	4.1
Rural South								
Buddhist	3.0	3.2	3.9	4.8	5.5	6.6	4.4	4.2
Moslem	3.3	3.9	4.1	5.4	4.8	5.2	4.4	4.3

^aThe duration since first marriage of the entire sample is used as the basis for standardization.

and even direction of Buddhist-Moslem fertility differences may be undergoing change in Thailand seems likely and may well complicate cross-sectional comparisons such as the present one.

A more consistent pattern of differences is evident between southern Buddhists and respondents nationally. For all marriage duration categories, the mean number of children ever born, living children and expected children are higher for Buddhists in the South than for the national sample.

Fertility desires and expectation may be related to a variety of background characteristics which at the same time may also differ between regions or religious groups. In order to see the extent to which regional and religious differentials in the percent wanting no more children and the preferred and expected number of children are each affected by differences in several background variables typically related to reproductive behaviour and attitudes, Multiple Classification Analysis (MCA) has been used to statistically "Adjust" for these background variables. The analysis is limited to women aged under 35 and married less than 20 years for two reasons: 1) by so doing the statistical problem that would be created for MCA by the interaction of duration of marriage, religion and both preferred and expected number of children is avoided and 2) these are the women who are likely to be the most important contributions to fertility over the next several years as most older and higher marriage duration women are more likely to have already completed most or all of their childbearing. Results are presented in Table 8. Adjustment is made for marriage duration, education, and work status⁵ of the women. Adjusted and unadjusted results are generally similar to each other.

⁵ Work status was defined in terms of three categories: engaged in agriculture, engaged outside of agriculture, and housewife.

Table 8

Percent Wanting no More Children and Preferred and Expected Number of Children by Region and Religion, Unadjusted and Adjusted^a - For Women Under Age 35 and Married Less Than 20 Years

	Region ^b				Religion of Village (Rural South Only) ^c	
	North	Central	Northeast	South	Buddhist	Moslem
<u>% wanting no more children</u>						
Unadjusted	53	52	51	41	48	32
Adjusted	52	54	51	38	47	31
<u>Preferred number of children (Mean)</u>						
Unadjusted	2.3	2.5	2.9	3.5	3.4	4.0
Adjusted	2.2	2.6	2.8	3.5	3.6	3.8
<u>Expected number of children (Mean)</u>						
Unadjusted	2.5	2.6	3.1	3.7	3.6	4.2
Adjusted	2.4	2.7	3.1	3.6	3.7	3.9

^a Adjusted for duration since first marriage, education and work status of women.

^b Adjustment made by Multiple Classification Analysis (MCA) based on the entire national sample.

^c Adjustment made by MCA based on rural South excluding mixed religion villages.

The sharp differentials between the South and other regions with respect to all three dependent variables between the two religious groups in the percent wanting no more children remain virtually unchanged after adjustment for the background factors mentioned. The differences in preferred and expected number of children between Buddhists and Moslems, however, are reduced and become negligible after adjustment. Both Buddhists and Moslems in the rural South are less likely to want to stop childbearing and indicate they prefer and expect more children than women in all other regions. The higher fertility desires of southern women thus do not appear to be attributable to differences in socio-economic background factors to the extent such factors are captured by education and work status. The same is true concerning Buddhist-Moslem differences in the percent wanting no more children.

Several indicators of current fertility are presented in Table 9 both unstandardized and standardized for duration since first marriage. Given the sensitivity of these measures to marriage duration, the standardized results are of greater interest and the following discussion focuses on them.

Three different measures of current fertility are used: the percent of currently married women having a birth in the year prior to the survey, the percent reporting themselves as pregnant, and the mean number of months since last birth (the open interval). All three measures point to higher current fertility for southern women than for women nationally (i.e. southern women were more likely to experience a birth in the year prior to the survey and were characterized by a higher percent pregnant and a shorter open interval). Religious differences are also consistent. In the rural south, Buddhists show lower current fertility than Moslems with respect to each measures.⁶ The higher

⁶Results from a survey of Buddhists and Moslems in the Jana District of Songkla province suggest that Moslems are more reluctant to acknowledge pregnancies of early durations than are Buddhists (Porapakham, et al., 1983). Thus differences in the percent pregnant may understate the extent of the religious differentials in current fertility.

Table 9

Selected Indicators of Current Fertility, (Standardized for Duration Since First Marriage)^a - Currently Married Women 15-49 years

	<u>National</u>	<u>South</u>	<u>Rural South</u>	
			<u>Buddhist</u>	<u>Moslem</u>
<u>% having had a birth in the last year</u>				
unstandardized	17.9	17.9	16.4	23.2
standardized	17.9	19.1	18.7	24.4
<u>% currently pregnant</u>				
unstandardized	7.9	9.4	9.0	10.3
standardized	7.9	10.2	10.2	11.0
<u>Mean Open Interval (in months)</u>				
unstandardized	61	54	55	48
standardized	61	49	48	42

^aThe distribution of duration since first marriage for the entire sample is used as the basis for standardization. Thus the unstandardized figures at the national level are identical.

current fertility of the southern population, however, is not due only to the higher fertility of Moslems as evidenced by the fact that rural southern women of both religions are characterized by higher current fertility on all measures (after standardization) than indicated for the national sample.

It is interesting to compare the religious differentials in current fertility with those indicated in Table 7 for cumulative (lifetime) fertility. While the results on current fertility clearly indicate higher Moslem fertility this is not so with cumulative fertility at longer marriage durations. Thus Moslems had experienced fewer children ever born than Buddhists among women married 20 years or more. This contrast in religious fertility differentials between current and lifetime fertility suggests that fertility differences between the two religious groups have changed during recent years. Until the recent past, Buddhist fertility may well have equalled or exceeded Moslem fertility in the rural South. More recently, Buddhists have probably reduced their fertility below Moslem levels through a more widespread adoption of birth control (see below). The impact of this recent change is not yet evident in results on lifetime fertility since women now at the end of the family building process were bearing most of their children at a time when Buddhist fertility equalled or exceeded Moslem fertility.

One factor of potential importance for fertility levels for which information is available from CPS2 is the extent of breastfeeding. In general breastfeeding helps keep fertility lower than it would otherwise be by extending the period of postpartum amenorrhea. Evidence from an earlier survey suggests that in the southern region Moslem mothers breastfeed for longer durations than Buddhist mothers (Knodel, et al., 1982). Analysis of data on breastfeeding from CPS2, presented in Table 10, give only partial support to this. The results show some irregularity and are based, as are the results referred to above, on small numbers of women. According to the CPS2 results referred to above, on small numbers of women. According to the CPS2 results the estimated median duration of breastfeeding is longer in the South than is the case nationally and among the rural population in the South, Moslem mothers are characterized

Table 10

Median Duration of Breastfeeding, Proportion Who Never Breastfed and Proportion who Breastfed at least 6, 12 and 18 months^a

	<u>National</u>	<u>South</u>	<u>Rural South</u>	
			<u>Buddhist</u>	<u>Moslems</u>
<u>Median Duration (months)</u>	16.6	18.4	18.5	23.3
<u>Proportion never breastfeeding</u>	.091	.111	.067	.146
<u>Proportion breastfeeding at least</u>				
6 months	.756	.726	.794	.741
12 months	.660	.689	.740	.727
18 months	.460	.537	.568	.603

^aResults are derived by life table analysis and refer to women who had a surviving birth within 24 months prior to interview.

by a longer median duration of breastfeeding than are Buddhist mothers. Nevertheless, the estimated proportion never breastfeeding is higher among Moslems than Buddhists and the estimated proportion still breastfeeding at 6 and 12 months is lower for Moslems than Buddhists. Weaning after 12 months, however, seems to take place slower for Moslems than Buddhists thus accounting for the longer median duration for the former. Given the somewhat complicated picture of religious differentials in breastfeeding little can be concluded as to its contribution to fertility differences between Moslems and Buddhists. Moreover the rather minor differences in breastfeeding between the South and the country as a whole would seem to have little potential for influencing fertility differences and are in any event in the opposite direction as expected in terms of current fertility -- that is longer breastfeeding in the South is associated with higher rather than lower current fertility.

Contraceptive Knowledge, Attitudes and Practice

In order to ascertain the extent of knowledge of contraceptive methods, respondents were first asked to name any methods they knew. For methods not spontaneously mentioned they were asked if they recognized the method when read to them by the interviewer. It is thus possible to distinguish knowledge of a particular method without prompting from knowledge after prompting. Presumably the former indicates a greater saliency of the method for the respondent. Cultural differences between Buddhists and Moslems, however, may result in a greater reluctance for one group than for the other to volunteer knowledge of contraceptives or even to acknowledge recognition of specific methods when mentioned to them. Under such circumstances, the results presented here would not be a genuine reflection of differences in contraceptive knowledge. While there is no evidence to suggest this is the case, the possibility should be kept in mind when interpreting the results.

The percentage of respondents knowing particular methods without prompting as well as knowing any method at all (with or without prompting) are provided in Table 11. The ability to mention at least one method without prompting is almost universal at the national level but somewhat lower when the South is considered separately. Within the rural South,

Table 11

Percent of Ever-Married Women 15-49 Years of Age who Know Specific Contraceptive Methods

Method	Know Without Prompting				Know at All (With or Without Prompting)			
	National	South	Rural South		National	South	Rural South	
			Buddhist	Moslem			Buddhist	Moslem
Pill	90	76	83	59	98	95	99	85
IUD	64	44	55	17	93	81	97	46
Injection	60	51	59	37	95	91	98	77
Ligation	73	54	66	27	97	92	100	74
Vasectomy	53	47	59	22	93	89	99	67
Vaginals	2	1	1	0	22	27	29	19
Condom	37	31	39	11	83	84	94	60
Rhythm	9	9	7	2	43	55	63	30
Withdrawal	3	7	8	2	29	56	63	41
Induced Abortion	5	4	4	4	75	82	92	60
Other Method	2	9	2	22	-	-	-	-
Any Method	97	83	93	75	99	98	100	92
Any Efficient Method	96	84	92	66	99	97	100	89
Number Known (Mean)								
Any Method	4.0	3.3		2.0	7.3	7.6	8.3	5.8
Efficient Method	3.4	2.7		1.6	4.7	4.5	4.9	3.5

Moslems are less likely to be able to mention a method, particularly if only the more efficient methods are considered.⁷ Three quarters of rural southern Moslems could mention at least one contraceptive method and two thirds could mention one efficient method. This contrasts to over 90 percent nationally as well as among rural southern Buddhists even when only efficient methods are considered. When recognition of a method mentioned by the interviewer is included, knowledge of at least one method is found to be virtually universal nationally as well as among rural southern Buddhists and characterizes nine out of ten Moslems in the rural South.

Higher proportions of Buddhists know most methods without prompting than Moslems. For most of the efficient methods, the difference in knowledge appears to be considerable. When knowledge is more broadly defined to include recognition of a method in response to prompting, religious differentials persist. Interestingly, knowledge of withdrawal is far more wide spread in the South than elsewhere and seems to be known by a substantial proportion of both rural Buddhists and Moslems in the region.

The superior knowledge of contraceptive methods by Buddhists is also indicated by the larger mean number of methods known compared to Moslems. Buddhists in the rural South do not appear to differ in their knowledge of contraception markedly from the national sample while knowledge among Moslems seems to be distinctly below the national average. Thus the lower knowledge level of the South is attributable entirely to the Moslem minority.

Respondents were also asked if they approved contraception and whether or not their husbands did. Results are summarized in Table 12. Women who are current contraceptive users are presumed to approve of the use of contraception. Disapproval of contraception appears to be remarkably

⁷Efficient methods are defined as pill, IUD, injection and male and female sterilization.

Table 12

Percent Approving Family Planning Among Ever-Married Women 15-49 Years of Age and for Husbands^a

Woman's Attitude	National	South	Rural South	
			Buddhist	Moslem
Current-user	54	39	44	18
Approve	42	52	51	62
Disapprove	1	4	3	9
Depends, know' know	2	5	3	10
Total	100	100	100	100
Husband's Attitude^a				
Approve	89		90	75
Disapprove	5		7	19
Doesn't care	4		2	1
Depends or don't know	2		2	6
Total	100		100	100

^aAs reported by currently married women.

low regardless of religion. The percentage disapproving, although low, as well as the percent expressing neither approval nor disapproval is higher among Moslems than Buddhists in the rural South. Similar results are apparent regarding the husbands' attitude (as reported by the wife): although low, disapproval or uncertainty is higher among Moslem husbands than among Buddhist husbands.

The percent of women who ever practiced and who are currently practicing various methods of contraception are shown in Table 13 along with the overall levels of contraceptive prevalence. In general, ever-use and current use are lower in the South than nationally. Within the rural South prevalence is far higher among Buddhists than Moslems although for rural southern Buddhists prevalence is also below the national average. The religious differentials are even more pronounced when the comparison is limited to the five efficient methods which are also the ones available through the National Family Planning Programme. Notably absent among Moslems is any use of the IUD or vasectomy and prevalence of the other three efficient methods, the pill, injection and especially female sterilization is far below that for Buddhists. Withdrawal is the most commonly practiced method as reported by Moslems and indeed is more frequently used by Moslems than Buddhists. The practice of withdrawal as a current method of contraception is almost entirely limited to the South although not exclusively to Moslems.

The lower level of contraceptive prevalence in the South is due to lower levels of practice compared to the rest of Thailand among both Southern Buddhists and Southern Moslems. While prevalence is even lower among Moslems than among Buddhists in the rural South, the fact that the majority (about three-fourths) of the southern population is Buddhist given added weight to the Buddhists in determining the regional average prevalence rate. Based on results from CPS2, it is possible to make a quantitative estimate of the proportionate contribution of each religious group to the lag in contraceptive prevalence between the South and the

Table 13

Percent Ever Using Contraceptive Methods Among Ever-Married Women
15-49 Years Old and Percent Currently Using Contraceptive Methods
Among Currently Married Women 15-49

Method	% Ever Using Contraception (Ever-married women)				% Currently Using Contraception (Ever-married women)			
	National	South	Rural South		National	South	Rural South	
			Buddhist	Moslem			Buddhist	Moslem
Pill	51	29	31	16	19		11	4
IUD	12	5	5	1	4		2	0
Injection	18	12	12	8	7		7	3
Ligation	18	11	13	2	18		13	3
Vasectomy	4	4	6	0	4		7	0
Vaginal	2	2	1	0	0		0	0
Condom	11	8	6	4	2		0	1
Rhythm	10	12	10	10	1		1	0
Withdrawal	7	17	16	19	1		5	8
Abortion	2	1	1	0	0		0	0
Other	1	5	0	13	0		0	1
<u>Any Method</u>	76	59	61	45	57	41	46	20
Any Efficient Method	70	46	52	22	52	32	39	10

rest of the country taking into account each group's prevalence rate and share of the population. Such a calculation indicates that about half of the lag in prevalence in the South is attributable to the Buddhists and about half to the Moslems.⁸ Clearly any strategy to raise contraceptive prevalence in the South to the national level will need to focus on increasing contraceptive use among both religious groups. Given that Moslems represent only about a quarter of the population but account for fully half of the lag in prevalence, a greater per capita investment for Moslems seems appropriate.

Results about knowledge and practice of contraception have been presented so far for married women within the reproductive ages taken collectively. However, for future program activities, it is the knowledge and experience of younger and middle age women that is most relevant because they are the ones who will contribute most to future fertility levels.

Several measures of contraceptive knowledge and prevalence are shown in Table 14 according to the age of the respondent. For all age groups knowledge of contraception (as measures by percent knowing without

⁸The estimated contribution of each religious group is based on the following information. According to CPS2, contraceptive prevalence (for currently married women 15-49 and including all methods) is 41.2 percent in the South and 58.7 percent in the remainder of the country. Within the South the population is 75.5 percent Buddhist and 24.5 percent Moslem according to the 1980 census. If we assume that the Buddhist-Moslem differentials in the total South are proportionate to those in rural south, then the prevalence for all southern Buddhists would be 47.7 percent and for all southern Moslems would be 20.8 percent. The difference in prevalence between the South and the rest of the country is 17.5 percentage points (58.7 - 41.2). About 53 percent of this difference is attributable to Moslems $((.245 \times (58.7-20.8))/17.5)$ and the remaining 47 percent to Buddhists $((.755 \times (58.7-47.7))/17.5)$. Note that this calculation assumes the proportion of married women in reproductive ages that belong to each religion is the same as the share of the total population that belongs to each religion. Since Moslems marry earlier than Buddhists this may slightly understate the contribution of Moslems and overstate the contribution of Buddhists to the lag in contraceptive prevalence of the Southern region.

Table 14

Knowledge and Practice of Contraception by Age Among Currently Married Women 15-49 Years

<u>Measure and Age</u>	<u>National</u>	<u>South</u>	<u>Rural South</u>	
			<u>Buddhist</u>	<u>Moslems</u>
<u>% knowing any method without prompting</u>				
Under 30	98	89	93	82
30-39	97	89	95	70
40-49	94	84	89	68
<u>% knowing any efficient method without prompting</u>				
Under 30	97	86	93	75
30-39	97	86	94	61
40-49	93	81	89	53
<u>% currently practicing any method</u>				
Under 30	51	34	38	19
30-39	66	50	55	19
40-49	44	34	34	16
<u>% currently practicing any efficient method</u>				
Under 30	46	26	34	10
30-39	61	39	47	10
40-49	41	28	29	7

prompting) is lower in the South than nationally and within the rural South is lower for Moslems than for Buddhists. Indeed rural southern Buddhists differ only a little from the national average for each age group. Differences in knowledge between the two religious groups, however, are directly related to age with considerably less difference evident for younger women. This suggests that the gap in knowledge of contraception and particularly of efficient methods is diminishing over time and knowledge of contraception may well become virtually universal for both Buddhist and Moslem women in the South before long.

Contraceptive prevalence is distinctly lower in the south for each age group than it is nationally and substantially lower among rural southern Moslems at each age than among rural southern Buddhists. Nationally prevalence is highest among women in the mid-reproductive ages. This is also true for southern rural Buddhists but not for southern rural Moslems for whom there is little difference in use by age. Because of the different age patterns of contraceptive use among Buddhists and Moslems, the religious differential in prevalence is somewhat less marked among women under 30 than among women in their thirties perhaps signalling a trend towards reduced religious differentials in contraceptive use in the future. It may also reflect less interest among Moslems compared to Buddhists in family size limitation relative to birth spacing since motivations to terminate family building would likely play a more important role among women in their thirties compared to younger women, while motivations to space children would presumably have greater importance among the younger women.

For a long time the reasons for not using any contraception received insufficient attention from family planning researchers. This needed information was collected in CPS2. Respondents who were non-current contraceptive users were asked about the reasons for not practicing contraception. More than one response or answer was permissible. Presumably for most persons, the first reason given was the main one. For this reason and for simplicity of analysis, we only examine the first reason given. As can be seen from Table 15, the most important reasons given for not using contraception seem to be associated with the awareness of a low risk of pregnancy. More than one-fourth of the women

Table 15

Percent Distribution of First Reason for non-use of Contraception,
Currently Married Women Under Age 50 Who are Not Using Contraception

Reason	National	South	Rural South	
			Buddhist	Moslem
Pregnant/postpartum	30	26	28	22
Doctors recommendation	6	3	3	1
Subfecund, sterile, menopausal	25	23	30	15
Fear of side effects	13	15	18	13
Husband forbids	1	1	0	1
Sexually inactive	4	1	2	1
Desire pregnancy	17	18	16	20
Religious taboo's	0	1	0	3
Other	3	7	3	11
Don't know, unsure	2	6	0	15
Total	100	100	100	100

did not use any contraception because they were currently pregnant or had recently given a birth prior to the interview and were probably still experiencing postpartum amenorrhea. Approximately another one-fourth did not use any contraception because they considered themselves either subfecund or totally infecund (for a variety of reasons including menopause). These two categories of responses already account for slightly more than half of the non-contraceptive users for the whole country, and almost one half for the southern region. Differences are apparent by religion. More than 60 percent of Moslem women expressed other reasons for not using contraception while almost 60 percent of Buddhists fell in the two previously mentioned response categories. Perhaps due to the generally greater desire for additional children, more Moslems than Buddhists did not use contraception because they wanted to become pregnant again.

Interestingly enough, no Buddhist respondent cited religious taboos against the use of contraception as the first reason for non-use and only a small proportion (3 percent) of Moslem women did so. Religious beliefs may possibly underly the higher proportions of Moslems than Buddhists who indicated that they "don't know" or are "not sure" why they are not using contraception but this is unfortunately not possible to ascertain from the present data. The present data suggest religious opposition to family planning is not a serious problems although it should be noted that no specific probe on this matter was made. The fact that more Moslems were included in the residual "other" category may reflect some social or cultural barriers but this cannot be explored in the present data.⁹ Also, perhaps due to their lesser actual experience with contraception, Moslems are less likely than Buddhists to cite side effects as the first reason for not using contraception.

One reason for lower contraceptive use in the South generally as well as among Moslems in particular may be the higher fertility preferences of southern women and especially Moslems. Thus it is interesting to

⁹Since responses were precoded in the questionnaire it is not possible to examine what reasons were given by respondents in the "other" category.

examine contraceptive use according to desire for more children. Generally women who wish no more children are expected to be more interested in practicing contraception than are women wanting more children although among the latter group contraception might also be practiced to space births. Since a lower proportion of women in the South compared to the national sample, and since within the rural South a lower proportion of Moslem women than Buddhist women indicated they wanted no more children, we would expect less interest in contraception in the South and especially among the Moslems. Results presented in Table 16, however, indicated that southern women compared to the national sample and Moslems compared to Buddhists in the rural South are less likely to practice contraception regardless of whether or not they want more children. Among both religious groups contraceptive practice is more common among women wanting no more children although for Moslems the difference is far less pronounced. This suggests that spacing is almost as important a reason for contracepting as is limiting births for Moslems.

From the perspective of the National Family Planning Programme, it is useful to know the proportion of the population that is potentially in need of family planning methods but is not using them. Various definitions of unmet need for family planning services have been proposed. In the final report of CPS2, an attempt was made to measure unmet need both in terms of child spacing and limiting of family size. The South was found to be characterized by the highest incidences of unmet need for child spacing and for spacing and limiting combined of all regions including that of the Northeast, the region where most attention for meeting family planning needs has been focused recently (Kamnuansilpa and Chamrathirong, 1982: Figure 5.6 p. 49). It should be noted here that the measure of unmet need in that report liberally defines the demand for child spacing by including women who wish to postpone their next birth by only a short period of time as well as by longer periods. Nevertheless, the considerably higher level of unmet need for the South as so defined suggests that the South also merits special attention from the national program. Although demographically fertility decline in the Northeast will have more impact on the national level than fertility decline in the South, special efforts to meet family planning needs in

Table 16

Percent Using Contraception by Desire for Additional Children,
Currently Married Women 15-49 years

<u>All Methods</u>	<u>National</u>	<u>South</u>	<u>Rural South</u>	
			<u>Buddhist</u>	<u>Moslem</u>
Want more	41	28	25	17
Want no more	64	51	54	24
Uncertain	46	(8) ^a	-	-
<u>Efficient Methods</u>				
Want more	36	20	25	9
Want no more	61	41	46	13
Uncertain	39	(8) ^a	-	-

^aResults in parentheses are based on 10-19 cases, results in less than 10 cases are omitted.

the South are also very important to terms of their political implication given the common perception among Southerners and particularly Msolems that their interests are less well served than regional interests elsewhere.

In the present paper, we do not attempt to present any single measure of unmet need. Rather we divide the population into various categories which are relevant for judging different aspects of potential need for family planning services. Obviously persons who are currently practicing contraception are having their needs met although those using less efficient methods would benefit from a switch to more efficient methods. Those not using any methods, however, are not all in need of contraception. Women who are infecund (or whose husband is infecund), women seeking to have another birth relatively soon, and women who are currently pregnant are not in need of contraception at least at that point of time. Women who are experiencing temporary postpartum infecundity are also not in immediate need of contraception although the uncertainty of when their fecundity will return makes their situation somewhat ambiguous. In contrast, women wanting more children but who wish to delay their next birth as well as women who wish to have no more children presumably need contraception if they are not already practicing birth control. Among non-users in the latter category, a distinction can be made concerning those women of proven recent fecundity (defined as having recently had a birth) and those who appear not to have children despite non-use of birth control. Presumably those in the former category are in more need of contraception than those in the latter category.

An attempt to approximate these different contraceptive need statuses is presented in Table 17. Information on postpartum infecundity is not available and thus this category is not included. An additional category, however, has been added to accommodate the small number of women who were not using contraception, were not pregnant, did not consider themselves infecund but were uncertain if they wanted more children. Their position regarding need for contraception is ambiguous.

Table 17

Percent Distribution of Status with Regards to Potential Need for Contraception, Currently Married Women 15-49 Years

<u>Need Status^a</u>	<u>National</u>			
Currently using				
more efficient method	52	32	39	10
less efficient method	4	9	7	10
Currently pregnant	8	9	9	10
Infecund	5	8	9	8
Uncertain about desire for more children	1	1	0	3
Wants more children				
within next 2 years	9	9	8	12
after next 2 years	5	9	12	24
Wants no more children				
had no birth within 5 years	7	6	6	7
married or had	9	13	13	17
Total	100	100	100	100

^a Each category takes precedence over all subsequent categories.

As already discussed above, contraceptive prevalence is lower in the South than elsewhere and lower among Moslems than Buddhists in the rural South. Moreover, more of the contraceptive use in the South than in the sample as a whole and more among Moslems than Buddhists is attributable to less efficient methods suggesting that there is room for improving the extent to which contraceptive needs are met even among contraceptive users particularly in the South and especially among Moslems. Non-users who are either infecund, pregnant or wish to have a birth relatively quickly (defined as within two years) represent from 22 percent of currently married women in the reproductive ages nationally to 30 percent of southern rural Moslem women. These women are presumably not in need of contraception at the time the survey took place. Although nationally only a small proportion of women (5%) were not using contraception but wanted to delay their next birth for at least two years, almost one fourth of Moslem women in the rural South are in this category. This suggests that in the South and particularly among Moslems there is substantial potential need for contraception to enable couples to effect their preference for widely spaced births. An equal proportion of Moslem women also indicated they wished no more children but were not practicing contraception and most of these women were of proven recent fertility in the sense they had experienced a birth during five years prior to the survey.¹⁰ Thus almost half of all Moslem women in the rural South appear potentially to need contraception for either spacing or limiting purposes but are not currently practicing a method. In contrast less than 30 percent of Buddhist women in the rural South seem to have an unmet need for contraception (9 percent of spacing and 19 percent for limiting with most of the latter being of proven recent fertility). However, higher proportions of Buddhists in the rural South appear to have an unmet need for family planning methods than is the

¹⁰Some of those who had no birth in the last 5 years may have practiced contraception during that time or had an abortion and thus may be as fecund as those who did experience a birth. We have not tried to sort this out in detail and the distinction between those with and without a birth in the last five years is intended only as a rough approximation of relative fecundity.

case nationally. Unmet need for contraception therefore appears to be greater in the South than elsewhere and especially large among Moslems. This does not necessarily mean that southern women and Moslems in particular will be more receptive to the National Family Planning Programme in the future than they have been so far. Our classification of potential need does not take into account how much importance the respondents themselves attach to spacing or limiting births. The intensity of feeling about such matters may differ considerably between religious groups. Data from CPS2 are not adequate for evaluating this. Future research could well focus on this topic.

With respect to where respondents said they would seek health care in the event a household member was sick, we have already seen respondents in the South, both Buddhist and Moslem, were likely to choose a government health outlet. Information on the source of services or supply was also asked in CPS2 to respondents who were currently using a contraceptive method that required a source of supply or service. The results as shown in Table 18 clearly indicate that government outlets are the main source for contraceptive methods requiring a supply or service nationally, in the South among both religious groups. Indeed government outlets account for an even higher proportion of contraceptive supply and service in the South than nationally, and within the rural South equally for the two religions. These results suggest that women, regardless of religion, who chose to use such methods do not hesitate to obtain them from the National Family Planning Programme. The lower use of hospitals among Moslems compared to Buddhists as a source of family planning probably reflects their very low use of sterilization, a method frequently obtained in hospitals.

In interpreting Table 18, it must be kept in mind that a substantial proportion of southern women and particularly Moslem women who use contraception rely on methods which do not require a supply or service (primarily withdrawal). Thus the proportion who obtain their contraceptive method from a government outlet would be substantially lower if all contraceptive users served as the basis of this determination. If we consider non-supply and non-service methods in the calculation then a

Table 18

Percent Distribution of Source of Contraceptive Method for Current Users of Methods Requiring a Source of Supply or Service

Type of Outlet	National	South	Rural South	
			Buddhist	Moslem
Tambol Health Center	18	23	24	30
District Health Center	3	20	24	33
Hospital	50	37	38	22
Private Clinic	8	9	7	4
Drugstore	12	5	2	4
Mobile Unit	2	0	0	0
MCH Center	5	6	2	7
Government Health Volunteer	1	0	1	0
Other	2	0	1	0
Total	100	100	100	100
<u>All Government Outlets^a</u>	78	86	90	93

^aGovernment outlets include tambol health centers, district health centers, hospitals, mobile units, MCH centers and government health volunteers.

sharp religious difference is apparent in the source of contraception: less than half of Moslem current users obtain their method from government outlets compared to just over three-fourths of Buddhist women in the rural South.

From the present data set it is not possible to determine why Moslem contraceptive users are more likely to rely on non-modern methods, especially withdrawal, than are Buddhist users. Perhaps there is simply a cultural preference for a method which is easily available, very private, and gives the male the dominant role. However, the possibility that Moslems are reluctant to utilize the government outlets because they identify the Family Planning Programme with the central government and hence the Buddhist majority and therefore turn to methods that require no service or supply cannot be ignored but would require other data than available in CPS2 for verification.

From the point of view of population policy, a particularly relevant question is whether the lower use among southern Moslems compared to Southern Buddhists is attributable to less access to outlets of the National Family Planning Program and whether or not improving access to outlets would increase substantially contraceptive prevalence. In this connection it is worth noting that the ratio of married women in the reproductive ages to health and midwifery centers (the two most common types of local outlets) is more favourable in the South than in any other region. Moreover, on a provincial level in the South, there is no substantial correlation between this ratio and family planning achievement (Research and Evaluation Unit, National Family Planning Program, 1983).

Data are available from the 1981 village questionnaire administered by the National Statistical Office on whether or not a health center was present in the village.¹¹ This information was added to our data set

¹¹ A considerably higher proportion of villages, especially Moslem villages, reported having a health center than would be expected by chance. The explanation for this is unknown but might result from village headmen liberally interpreting what qualified as within the village. For example, some might have indicated the presence of a health center as if it was in the village when in fact it was nearby but not strictly within village boundaries.

for the same villages in the South for which data on religion has been added. It is thus possible to examine contraceptive prevalence for each religious group according to whether or not there is a health center in the village. Unfortunately no information is available on how far the nearest center was if none was present in the village. Results are presented in Table 19 both in terms of the percent ever using contraception and the percent currently using. Moreover, use of any method, any efficient methods, and pill only are distinguished since the national program is primarily limited to promoting what we have labelled efficient methods (plus the condom) and most local health centers are limited to providing the pill only.

In terms of ever use of contraception, Buddhists living in southern villages with a health center are more likely to have practiced contraception than Buddhists in villages without a health center. Moreover, the difference is entirely due to differences in the percent who ever used the pill (as indicated by the fact that the difference between villages with and without health centers in the percent who ever used the pill--9 percentage points -- is exactly the same as the difference in use of all methods collectively). Interestingly for Moslems, while the presence of a health center is associated with slightly higher percentages reporting ever use of any method, this is not the result of a higher probability of ever use of either efficient methods of contraception or use of the pill but rather of traditional methods. The presence of a health center in Moslem villages appears to be associated, if at all, with lower levels of ever use of the pill.

In terms of current use, the pattern is virtually unchanged for Moslems with the presence of a health center not associated with increased use of the pill or of efficient methods in general. For Buddhists, higher prevalence rates in terms of efficient methods taken collectively are associated with the presence of a health center but surprisingly almost no difference is evident in pill use. Possibly the presence of a health center is instrumental in leading to initial acceptance of contraception in the form of pills, the major method offered by local health

Table 19

Percent Ever Used Contraception and Percent Currently Using Contraception^a,
According to the Presence or Absence of Government Health Center in Village,
Rural South Only - Women 15-49 Years

<u>Ever Used</u>	<u>Buddhist</u>		<u>Moslem</u>	
	<u>Without Center</u>	<u>With Center</u>	<u>Without Center</u>	<u>With Center</u>
(Among ever-married women)				
Any method	58	67	43	48
Efficient method	49	59	25	20
Pill only	28	37	18	13
Number of Women	307	165	119	141
<u>Currently Using</u>				
(Among currently married women)				
Any method	42	53	17	22
Efficient method	35	45	12	9
Pill only	10	11	5	3
Number of Women	288	150	110	130

^aThe presence or absence of a health center in the village was obtained from the National Statistical Office 1981 Village Survey Data.

centers, but after a time acceptors switch to other methods, such as sterilization which are more permanent, perhaps encouraged by the health center staff.

These findings suggest that while increased availability of modern contraception may help increase prevalence among southern Buddhists, the lack of availability does not seem to be a key factor underlying low levels of practice among Moslems. Even when a health center and thus an outlet for pills and a referral source for other methods is present in the village, levels of use of modern methods are not higher than in villages where no outlet is present. The problem among Moslems thus appears to be lack of demand for rather than of supply of modern methods. Given the potential importance of this finding future research should explore the association between availability and prevalence for the two religious groups more fully especially given the small number of cases upon which the present findings are based and the crude measure of availability used.

Conclusions

As indicated above, because of limitations of sample size as well as the restriction of Buddhist-Moslem comparisons to the rural South, results presented in the present paper should be interpreted conservatively and cautiously. Nevertheless, several conclusions seem reasonably justified. Within the rural South, Moslem women compared to Buddhists marry at an earlier age (although their age at first marriage appears to be increasing faster than for Buddhists), are characterized by higher current fertility, have a more limited knowledge of most contraceptive methods, practice contraception considerably less, rely more on non-modern methods, especially withdrawal, and appear to have a larger unmet need for family planning services particularly for spacing births. Attitudes are generally favourable towards family planning among the large majority of both Moslems and Buddhists in the rural South and government outlets are the primary source for women in both groups who practice a contraceptive method requiring a source of supply or service. Evidence on fertility preferences, while not completely

consistent, appear to point to a preference for more children among Moslems than Buddhists especially in terms of lower proportions indicating a wish to stop childbearing at their present stage of family building. Considerable interest in spacing births is evident for both religious groups although even more so among Moslems than Buddhists.

Women in the South overall also differ in a number of these same ways from women nationally, undoubtedly in part because of the higher representation of Moslems in the South but also because southern Buddhists differ from the national population in many of the same respects that Moslems differ from Buddhists in the rural South. Thus in comparison to the national average, rural southern Buddhist women have higher fertility preferences but more interest in birth spacing, experience higher current fertility, practice family planning less and have a larger unmet need for contraceptive methods. They do not differ markedly, however, with respect to age at marriage or knowledge of contraception. Moreover, both southern Buddhists and Moslems rely more heavily on traditional methods of birth control, especially withdrawal, than couples in the rest of the country.

While the data from CPS2, are limited in the extent to which they indicate why there are such pronounced differences between Buddhists and Moslems in the rural South or why the South lags behind other regions in contraceptive prevalence and fertility reduction, they at least give a reasonably clear picture of some important dimensions of the differences in family planning and reproductive behaviour as of 1981. They indicate for example that the lag in prevalence between the South and the rest of Thailand is about equally attributable to Buddhists and Moslems and thus that any effort to raise prevalence to the national level would do well to focus on both groups. A greater per capita effort for moslems, however, seems appropriate given that they account for fully one half of the lag but constitute only a quarter of the southern population. The data in themselves do not point to any insurmountable barriers towards increased use of contraception in the South among women of either religion but do suggest that higher fertility preferences may eventually set a lower limit on the extent of contraceptive prevalence in the region

compared to elsewhere. Fertility preferences, however, are not necessarily static and could fall more in line with the rest of the Thai population in the not too distant future. On the other hand there may be important barriers to the adoption of contraception or to the acceptance of services from the government program which the CPS2 questionnaire or, for that matter, the survey approach in general, is unable to identify. Clearly surveys more specifically designed to probe this area inquiry as well as alternative research approaches to the survey would be useful in further examining fertility and family planning behaviour and attitudes in the South and the differences between Buddhists and Moslems in particular.

One finding of the CPS2 that would be particularly worth pursuing is the apparent interest in birth spacing, especially among Moslems but also among southern Buddhists. In general, the national programme tends to emphasize the importance of family planning for limiting family size in its slogans and messages. Perhaps Moslems would be more receptive if emphasis were placed instead on the contribution of family planning methods to facilitating birth spacing. This is at least a possibility that merits careful attention.

APPENDIX

Information Available for Classical Village by Religion

Province	Amphur	Tambol	Village	From Mali		From NSO		Final Code ^a			
				Questionnaire		Presence of					
				% B ^a	% M ^a	Religion	Wat		Mosque		
Phang-nga	Takuatung	Kalai	2	100	0	B	Yes	No	B		
		Kalai	3	100	0	B	No	No	B		
		Kok Kloy	3	90	10	B	No	No	B		
		Kok Kloy	8	-	-	I	No	Yes	I		
	Tai Muang	Tai Muang	5	100	0	B	No	No	B		
		Tai Muang	6	95	5	B	No	No	B		
		Na Tay	7	40	60	I	No	Yes	X		
		Na Tay	8	50	50	B	Yes	Yes	X		
Naratiwas	Su Ngai Kolok	Puyo	1	0	100	I	No	Yes	I		
		Puyo	3	10	90	I	No	No	I		
		Muno	1	-	-	I	No	Yes	I		
		Muno	3	0	100	I	No	Yes	I		
	Waeng	Ka Yoo Kla	6	4	96	I	No	Yes	I		
		Ka Yoo Kla	7	10	90	I	No	Yes	I		
		Waeng	3	2	98	I	No	Yes	I		
		Waeng	5	0	100	I	No	Yes	I		
		Pattani	Yalang	Kaw Toom	1	5	95	I	No	Yes	I
				Kaw Toom	3	1	79	I	No	Yes	I
Maw-mawi	3			-	-	I	No	Yes	I		
Kok Poh	Maw-mawi		4	0	100	I	No	Yes	I		
	Makrud		1	100	0	B	Yes	No	B		
	Makrud		11	0	100	I	No	Yes	I		
Songkia	Ranod	Malan	8	12	88	I	No	Yes	I		
		Malan	9	-	-	B	Yes	Yes	X		
		Bortaru	2	-	-	B	Yes	No	B		
		Bortaru	3	100	0	B	Yes	No	B		
	Jana	Taklear	2	-	-	B	Yes	No	B		
		Taklear	3	-	-	B	No	No	B		
		Tar Mawsai	4	95	5	B	Yes	No	B		
		Tar Mawsai	7	50	50	B	No	Yes	X		
Nakorn Srithamarat	Cha-Uat	Banna	4	5	95	I	No	Yes	I		
		Banna	7	0	100	I	No	No	I		
		Tasamed	1	85	15	B	No	No	B		
		Tasamed	6	100	0	B	No	No	B		
	Ron Phibun	Wang-ang	1	100	8	B	No	No	B		
		Wang-ang	3	100	0	B	No	No	B		
		Kuankoi	7	100	0	B	Yes	No	B		
		Kuankoi	10	-	-	B	No	No	B		
	Hintok	2	-	-	B	Yes	No	B			
	Hintok	6	90	7	B	No	No	B			

^aB = Buddhist I = Islam X = Mixed

References

- Kamnuansilpa, Peerasit and Apichat Chamrathirong (1982). A New Decade of Fertility and Family Planning in Thailand: 1981 Contraceptive Prevalence Survey, National Institute of Development Administration and Family Health Division, Ministry of Public Health, Bangkok.
- Knodel, John, Apichat Chamrathirong, Napaporn Chayovan and Nibhon Debavalya (1982), Fertility in Thailand: Trends, Differentials, and Proximate Determinants, National Academy Press, Washington, D.C.
- Pejaranonda, Chintana (1983) "Economic, Social, Cultural Status and Population of the Southern Region". Paper presented at UNFPA Symposium on Fertility, Family Planning and Development Issues of Population in the South of Thailand, Hat Yai, March 16-18, 1983.
- Porapakkham, Yawarat, Somjai Pramanpol and John Knodel (1983). "Maternal and Child Health and Family Planning: Comparative Study of Thai Buddhists and Thai Moslems, Jana District, Songkla" paper presented at UNFPA Symposium on Fertility, Family Planning and Development Issues of Population in the South of Thailand, Hat Yai, March 16-18, 1983.
- Research and Evaluation Unit, National Family Planning Program, (1982). Annual Report for 1981, Bangkok: Ministry of Public Health.
- Research and Evaluation Unit, National Family Planning Program, (1983). "Facts and Figures, Family Planning Acceptance and Use in South Thailand". Paper presented at UNFPA Symposium on Fertility, Family Planning and Development Issues of Population in the South of Thailand, Hat Yai, March 16-18, 1983.
- Thailand Panel, National Research Council (1980). Fertility and Mortality Changes in Thailand, 1950-1975, National Academy of Sciences, Washington, D.C.