

## Family Planning Among Southeast Asian Refugees

DONALD H. MINKLER, MD, MPH; CAROL KORENBROT, PhD; and CLAIRE BRINDIS, DrPH, San Francisco

*Five different Southeast Asian groups were studied to document family planning knowledge, attitudes, and practices, and to identify current barriers to care. Significant differences exist among ethnic groups in their knowledge and use of effective methods of contraception, as well as variations in the timing of when to adopt family planning practices and in the preferred number of children. Nearly 70% of the sample had experienced barriers to services, including language, transportation, and a lack of awareness of available services.*

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As of September 1986, the influx of Southeast Asian refugees into the United States following the fall of South Vietnam in 1975 had reached 806,000 persons.<sup>1</sup> While these refugees share certain common problems of resettlement with other groups of refugees, immigrants, and undocumented aliens, nevertheless, they have unique characteristics. The impacts of war, involuntary dislocation, family separation, the deaths of children and relatives, and, in many cases, prolonged detention in refugee camps have all added to the problems they face in their attempt to become self-sufficient in a new and unfamiliar environment.

Although data regarding fertility and family planning practices in the countries of origin of these refugees are limited, local surveys in the region indicate fertility substantially higher than in the United States.<sup>2,3</sup> Likewise, studies of fertility of Southeast Asian refugees in the United States are few compared with those addressing their health status, though persistently high fertility following immigration is documented in a few studies.<sup>3-6</sup>

Our study was designed to elucidate the variations in knowledge, attitudes, and practices and the barriers to service affecting the family planning behavior of Southeast Asian refugees, many of whom have resettled in or secondarily migrated to California. The purpose of this research is to assist policymakers, planners, and service providers in reducing barriers to the access and use of services for this unique population facing the challenge of acculturation. We address primarily the problems of the second wave of refugees—those entering from 1980 onward—many of whom have been less successful in achieving self-sufficiency than their first-wave predecessors.

### Population and Methods

#### Sample

Structured in-depth interviews (N = 438) were conducted among ever-married Vietnamese, Cambodian, lowland Laotian, Lao Mien, and Lao Hmong refugee men (N = 210) and women (N = 228) of reproductive age (15 to 44 years for

women, 15 years and older for men) who were residents of Alameda, San Francisco, and Santa Clara counties.

A sample of convenience was necessitated because the confidentiality of general lists of refugees made it impossible to select participants randomly. Moreover, these refugees were particularly sensitive to any idea of being contacted through a government agency. Thus, the convenience sampling procedure was judged to be the cross-culturally sensitive approach to studying contraceptive behavior in a sexually active group of refugees. Potential respondents were approached by interviewers during visits to refugee screening clinics, other health clinics serving refugees, and social service agency locations. After the nature of the research project was explained and confidentiality assured, appointments were arranged to conduct the interviews in a convenient and comfortable setting for the participants, usually their homes. The interviewer's sex was the same as that of the interviewed. In those instances in which the number of respondents was inadequate, the "snowball" sampling procedure was implemented: refugees interviewed were asked to provide names of other members of their communities who might agree to be interviewed. Locating Hmong respondents was particularly difficult, but a Hmong community existed in Contra Costa County (California), and the study area was expanded to include this population.

Overall, 10% of 485 persons—and 25% of the Hmong—declined to participate. The most common reasons for refusal were a lack of time or a hesitancy to having an interview in their home that could not be dispelled by offering other locations, and, among the Hmong, shyness in discussing the topic of family planning.

Lowland Laotians formed the greatest portion of the sample (29%), followed by Cambodians (25%), Vietnamese (21%), Lao Mien (13%), and Lao Hmong (11%). Together, Laotians from lowlands and highlands comprised 53% of the sample. The proportions of men (48%) and women (52%) were not statistically different ( $P < .05$ ), nor were they different for any of the ethnic groups except the Lao Hmong ( $P$

From the Center for Population and Reproductive Health Policy, Institute for Health Policy Studies (Dr Minkler, Dr Korenbrot, and Dr Brindis); the Department of Obstetrics, Gynecology and Reproductive Sciences (Dr Minkler and Dr Korenbrot), University of California, San Francisco, School of Medicine; and the Department of Maternal and Child Health, School of Public Health, University of California, Berkeley (Dr Minkler).

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Reprint requests to Donald Minkler, MD, MPH, Center for Population and Reproductive Health Policy, Institute for Health Policy Studies, University of California, San Francisco, 1326 Third Ave, San Francisco, CA 94143.

< .01). Because it was difficult to get the Hmong women to participate, twice as many men (7%) as women (3%) were interviewed.

Respondents differed in background, with about a third each from rural areas (40%), towns (29%), and cities of more than 25,000 people (31%). The Mien and Hmong, however, were almost entirely from villages and towns; lowland Laotians and Vietnamese were predominantly from towns and cities. Only the Cambodians were evenly distributed in their geographic background.

More than half of those interviewed had entered the United States within two years of the interview (25% in 1983 and 28% in 1984). This selection of recent refugees of reproductive age was the only screening of possible respondents that was done. The selection was done to reduce the likelihood that knowledge, attitudes, and practices of family planning had been affected by experiences in the US. Second-wave refugees—those arriving since 1980—composed 80% of the sample. Almost all of the refugees (95%) had been in refugee camps, more than 39% of them for two or more years.

Clinic records had indicated that Southeast Asians rarely reported any premarital or extramarital sexual activity, and the sample for in-depth interviews, therefore, was restricted to married persons living with their spouses or divorced, separated, and widowed persons. Only 5% of this sample was not currently living with a spouse. Only one member of a couple was included.

Significantly more women (20%) than men (12%) reported never having had any schooling ( $P < .001$ ). For those women who had had any schooling, however, the proportion with one to six years of schooling (22%) was not different from that for men (21%,  $P < .05$ ). Most Lao Mien and Lao Hmong refugees had had no schooling (88% and 62%, respectively); this finding was significantly different from that in the other groups ( $P < .0001$ ). The Vietnamese had the highest rates of schooling, with only 3% having had no schooling ( $P < .001$ ) and 17% having had more than 12 years of school. The Cambodians and lowland Laotians had levels of education in between the other ethnic groups (24% and 23%, respectively, had had no schooling).

In 86% of cases neither the respondent nor the spouse was employed. About half the sample reported earning from \$500 to \$1,000 per month (53%), but most of the rest (43%) earned from zero to \$500 per month. Nearly 90% were receiving some form of public assistance, either through cash grants, Medicaid, supplementary security income (SSI), or food stamps.

### Interview

Interviews were conducted by trained bilingual and bicultural interviewers matched with respondents by ethnicity, language, and gender. Interviewers were selected from refugee health screening clinics, mutual assistance agencies within the ethnic communities, volunteer agencies, and leaders of refugee groups in the three counties. Because of the delicacy of so intimate a topic as family planning, care was taken to make interviewees as comfortable as possible. No remuneration was offered because the Southeast Asian community advisory board and health workers indicated this practice would actually increase suspicion of the purposes of the survey. In spite of many precautions, some limitations on the completeness and accuracy of data must be assumed, especially a bias to stereotyped responses.

Interview materials, both questionnaires and an informed consent form, were pretested by interviewers and research team members. The final questionnaire containing closed and open questions was translated into Vietnamese, Cambodian, and Lao and then translated back again into English by different translators to insure accuracy. Items that were distorted by retranslation were clarified and reworded. The Hmong translation was done by the Hmong interviewers (one man, one woman) but not verified.

### Data Processing

Most questions were in the short answer format with multiple choices provided. Open-ended responses were coded by two independent raters using content analysis of responses. After discordant codes were reconciled by a third rater, all response codes were key entered. Double entry was used to verify the accuracy of all entries. The Statistical Analysis System (SAS) (version 82.3) was used for editing. Checks on consistency of the respondents' answers with repetition of the same question at different times in the survey indicated that consistency on family planning questions was about 93%. Missing data varied greatly among questions, and, in general, variables with better than 97% response rates were used.

Continuous variables were compared using  $t$  tests after testing for the normalcy of their distribution. Discontinuous variables were analyzed using  $\chi^2$  analyses. Other nonparametric analyses were done on the ranks of certain variables indicated in the results. All data were analyzed with the SAS software (version 82.3) on an IBM 3370 mainframe computer.

## Results

### Preferred Family Size

The participants were asked, "In your homeland, what is the best number of children to have?"\* The results are shown in Table 1. Of the 438 refugees, 19 did not answer this question. The number preferred varied greatly with the ethnic group. The highest number— $9.0 \pm 0.5$  standard error of the mean (SEM)—was indicated by the Hmong. The Vietnamese indicated a significantly lower number— $3.2 \pm 0.2$  SEM—than any other group ( $P < .0001$ ). The significance of these differences in ethnic groups persisted after analysis that controlled for sex and rural background of the respondents.

\*While the same question was asked of the respondents "... now that they were in the United States," the large percentage of people answering zero or one child indicated that some had answered the question, "How many more children were best to have in the United States?" while others answered, "How many total children were best?" Thus, the results were uninterpretable.

TABLE 1.—Preferred Number of Children to Have by Ethnicity and Gender\*†

Ethnicity	Men		Women		Both	
	N		N		N	
Cambodian . . .	53	4.5±0.2	58	5.7±0.2	111	5.1±0.2
Lao Hmong . .	30	8.1±0.5	13	11.5±1.2	43	9.0±0.5‡
Vietnamese . .	42	3.2±0.2	48	3.2±0.2	90	3.2±0.2§
Lowland Laotian	52	5.4±0.4	66	4.2±0.2	118	4.7±0.2
Lao Mien . . . .	23	5.1±0.3	34	6.5±0.2	57	5.9±0.2
Total . . . .	200	5.1±0.2	219	5.1±0.2	419	5.1±0.1

\*Mean ± standard error of the mean.

†Question asked was, "In your homeland, what is the best number of children to have?" Of the 438 participants, 19 did not answer this question.

‡Significantly higher than any other group at the  $P < .0001$  level.

§Significantly lower than any other group at the  $P < .0001$  level.

The preferred number of children to have in the homeland was higher for those respondents from village backgrounds ( $6.0 \pm 0.02$ ) than for town respondents ( $4.5 \pm 0.2$ ;  $P < .0001$ ). The ideal number of children was highest for village women ( $7.0 \pm 0.4$ ), who were the only geographic group in which women preferred more children than the men from the same geographic background ( $P < .0001$ ).

**Preferred Family Composition**

All ethnic groups expressed a preference for a greater number of boys than girls ( $P < .05$ ; Table 2). Although the Vietnamese preferred the smallest number of boys and girls, the statistical difference between the boys and girls was strongest in this group ( $P < .001$ ). While there was no significant difference between men and women when asked the best number of boys and girls to have, in respondents with a rural background, there were distinct preferences for boys. Those who had lived in cities also expressed a significant preference for boys— $2.5 \pm 0.2$  SEM compared with  $2.2 \pm 0.1$  SEM for girls;  $P < .05$ .

**TABLE 2.—Preferred Number of Boy and Girl Children to Have by Ethnicity\*†**

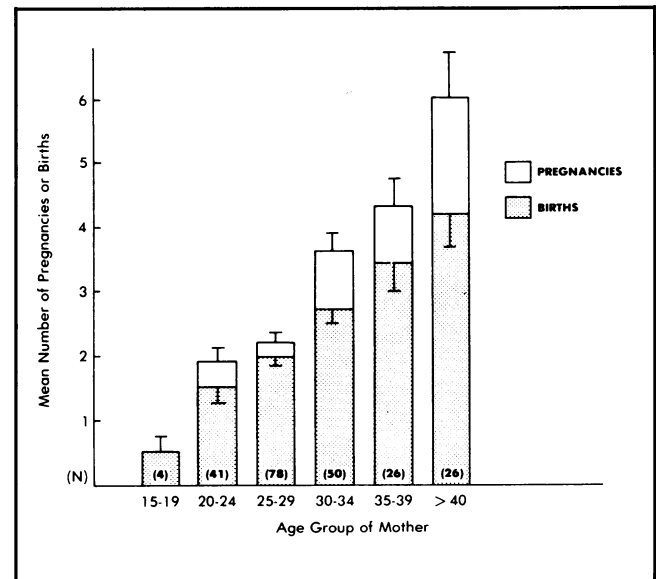
Ethnicity	No.	Boys	Girls	Ratio of Boys/Girls
Cambodian	111	$2.7 \pm 0.1$	$2.4 \pm 0.1$ ‡	1.1
Lao Hmong	37	$4.7 \pm 0.3$	$3.9 \pm 0.3$ ‡	1.2
Vietnamese	89	$1.8 \pm 0.1$	$1.5 \pm 0.1$ §	1.2
Lowland Laotian	118	$2.5 \pm 0.1$	$2.3 \pm 0.1$	1.1
Lao Mien	57	$3.1 \pm 0.1$	$2.8 \pm 0.1$ ‡	1.1
Total	412	$2.7 \pm 0.1$	$2.4 \pm 0.1$ ‡	1.1

\*Mean  $\pm$  standard error of the mean.  
 †Question asked was, "In your homeland, what is the best number of children to have? How many boys? How many girls?" Seven people who answered the question in Table 1 did not answer this question.  
 ‡Significantly less than best number of boys at the  $P < .01$  level.  
 §Significantly less than best number of boys at the  $P < .001$  level.  
 ||Significantly less than best number of boys at the  $P < .05$  level.

**Family Growth Rate**

The pregnancy histories revealed that in general few refugees had not started families at ages younger than 20 years. The median age at first pregnancy was 21. When respondents were asked the best age for a woman to start having children, the median value was 20 years of age: 36% said 20 years of age, 36% said younger than 20 years of age, and 28% said older than 20 years.

Women older than 40 years had had an average of six pregnancies and four births (Figure 1). The differences represent losses due to spontaneous and induced abortions and stillbirths. After correcting for a 6% reported rate of induced abortions, fetal death rates appear to be as high as 44 per



**Figure 1.—Mean number ( $\pm$  standard error of the mean) of pregnancies and births for Southeast Asian mothers of different ages.**

**TABLE 3.—Awareness of Specific Family Planning Methods Ranked by Ethnic Group**

Family Planning Methods	No.	Cambodians		Lao Hmong		Vietnamese		Lowland Laotian		Laotian Mien		Average Overall Rank
		Percent	Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	Rank	
<b>More Effective Methods</b>												
Oral contraceptives	298*	93	4.0	73	1	91	1	75	2.0	100	1	1.8
Female sterilization	329	94	3.0	46	2	86	4	79	1.0	95	3	2.5
Intrauterine device	289	77	6.0	31	5	90	3	70	4.0	80	5	4.6
Male sterilization	285	87	5.0	28	6	83	5	67	5.0	67	6	5.4
Injectable	270	94	2.0	26	7	43	10	65	6.0	97	2	5.4
Subtotal	370	96	..	51	..	96	..	84	..	100	..	..
<b>Other Methods</b>												
Condom	325	95	1.0	45	3	91	2	71	3.0	93	4	2.6
Fertility awareness (rhythm)	193	38	7.0	21	8	82	6	44	7.0	46	8	7.3
Foam	131	20	9.0	11	10	37	11	43	8.5	54	7	9.1
Abstinence	114	18	10.5	39	4	43	9	41	10.0	5	14	9.5
Withdrawal	136†	24	8.0	3	12	71	7	30	13.0	29	11	10.2
Douche	110	18	10.5	0	14	45	8	34	11.0	29	10	10.7
Diaphragm	87	9	12.0	11	9	27	12	32	12.0	33	9	10.8
Suppository	78	6	14.0	3	13	26	13	43	8.5	12	13	12.3
Jelly	69	6	13.0	8	11	24	14	24	14.0	27	12	12.8
Subtotal	347	97	..	49	..	95	..	76	..	96	..	..
Total	399	97	..	53	..	99	..	86	..	100	..	..

\*Although the number is smaller than that for female sterilization or the intrauterine device, the proportion is greater because one group of respondents (N=20) was not asked about oral contraceptives; 19 reported that they were not aware of any family planning methods.  
 †Although the number is greater than that for abstinence or foam, the rank is greater because the distribution of responses gave it a smaller average overall rank.

1,000 live births, whereas in California the fetal death rate is 8 per 1,000 births. The neonatal death rate reported by the group was 184 per 1,000 live births, in contrast to the California rate of 14 per 1,000. Infant deaths after 1 month of age and before the first birthday occurred at a rate of 18 per 1,000 births. Childhood deaths through age 18 were 36 per 1,000 births.

#### Knowledge of Family Planning Methods

To ascertain the knowledge of fertility control alternatives, questions were asked regarding specific family planning methods. Respondents were asked first whether they had ever heard of a method, and their responses were ranked for different family planning methods (Table 3). An overall average rank was determined for each ethnic group that did not depend on the different numbers of each ethnic group responding—an unweighted mean. The rank order of methods was highly correlated among ethnic groups of refugees and did not differ substantially by age, sex, year of entry, refugee screening clinic, or rural background.

In general, more people reported an awareness of the more effective methods (Table 4). Among the highly effective methods, oral contraceptives ("pill") and female sterilization (tubal ligation) ranked higher overall than an intrauterine device, male sterilization (vasectomy), or injectable medroxyprogesterone acetate (Depo-Provera) among those who said they were aware of the method. The Hmong were the least aware of contraceptive methods. More Lao Mien and Cambodians responded they had heard of oral contraceptives and female sterilization than did the Vietnamese ( $P < .01$ ). More Cambodians and Vietnamese reported they knew of male sterilization than did the Lao Mien ( $P < .01$ ). Fewer lowland Laotians had heard of the effective methods than had the Cambodian, Vietnamese, and Lao Mien refugees ( $P < .001$ ), although more had heard of them than had the Hmong ( $P < .01$ ).

Although medroxyprogesterone is not approved for use in

the US by the Food and Drug Administration, 95% of Lao Mien, 93% of Cambodians, 65% of lowland Laotians, 43% of Vietnamese, and 24% of Hmong reported being aware of the method (see Table 4).

Among the other methods of contraception, only the condom appears to have substantial recognition (Table 4). Lowland Laotians responded significantly less often than Cambodians, Mien, and Vietnamese that they had heard of the condom (72%;  $P < .001$ ), and Hmong responded even less often than the lowland Laotians (43%;  $P < .0001$ ). The Mien were the only group in whom a majority (55%) knew of foam. Knowledge of the combined use of foam and condom was not ascertained in the study, although some of the interviewed refugees spontaneously responded that they were using or had used this combination.

#### Depth of Knowledge of Specific Family Planning Methods

Respondents who were aware of a method were asked if they knew how it was used (Table 5). While 90% knew of one or more of the more effective methods, only 49% indicated they knew how any of the methods was used, and most reported understanding only how oral contraceptives were used. Surgical methods, especially, were described in such general terms—often as an "operation," a word that was often supplied to clarify the question—that the description, though partially correct, was inadequate. Far fewer respondents who were aware of less effective methods were able to describe how they were used. Only 66% of those who said they knew how to use the rhythm method described the fertile period correctly.

#### Family Planning Practices

Of those who were not pregnant at the time of the study and who stated they did not want to get pregnant, 70% reported they were using a family planning method, and 64% of these were using one of the more effective methods. Thus, only 45% of those not wanting more children would be con-

TABLE 4.—Extent of Knowledge of Specific Family Planning Methods

Family Planning Methods	Aware of Method		Know How to Use Method		Described Use of Method Correctly or Partially Correctly	
	Number	Percent	Number	Percent	Number	Percent
<b>More Effective Methods</b>						
Oral contraceptives . . . . .	298	88	141	54	135	53
Female sterilization . . . . .	329	84	67	19	60	18
Intrauterine device . . . . .	289	75	62	18	55	16
Male sterilization . . . . .	285	73	48	13	46	13
Injectable . . . . .	270	69	66	19	64	18
Subtotal . . . . .	356*	90	184	49	173	46
<b>Other Methods</b>						
Condom . . . . .	325	83	115	34	102	31
Fertility awareness (rhythm) . . . . .	193	49	77	22	60	17
Foam . . . . .	131	33	26	7	21	6
Abstinence . . . . .	114	29	34	10	26	8
Withdrawal . . . . .	136	35	64	18	50	15
Douche . . . . .	110	28	35	10	33	9
Diaphragm . . . . .	87	22	24	7	23	6
Suppository . . . . .	78	20	19	5	16	4
Jelly . . . . .	69	18	10	3	10	3
Subtotal . . . . .	342	86	155	39	135	34
Total . . . . .	363	91	225	60	203	54

\*Fourteen people who answered "Aware" questions did not answer the "Know how to use" or "Describe use" questions.

sidered protected above a 97% effectiveness level by family planning methods.

Slightly more than half of the women in the study who were not already sterilized or infertile expressed a willingness to use family planning. Nearly a third (30%) said that they were not sure if they were interested, and 19% did not want to use a method of contraception. When those interested but not currently using a family planning method were asked when would be the best time to start, 46% responded after their next baby. Another 22%, when prompted, expressed that after all their babies were born would be a good time to start family planning.

Among those currently using contraception, 61% said that it was because they desired no additional children. The remaining 39% said that it was for spacing.

*Past and Present Use of Specific Family Planning Methods*

Of those using family planning methods, more people had used or were currently using the more effective methods (see Table 5). Most had had tubal ligations, while only 2% had relied on vasectomy. Nearly 90% of those who had had a tubal ligation also said that they preferred female sterilization to other methods. The use of the second most prevalent method, oral contraceptives, had been discontinued by 39% of users for health reasons. Condoms were being used by nearly as many as were oral contraceptives and at the time of the interview their use was the third most prevalent method. Rhythm, withdrawal, and abstinence had all been used at one time or another by 11% to 19% of those who had ever used family planning.

*Specific Types of Barriers to Family Planning Information*

Nearly 70% of the refugees said that they had had problems getting information on family planning (Table 6). The barriers to obtaining this information are those common to many low-income, non-English-speaking groups. Language was mentioned as a problem by 73%. Significantly greater proportions of Cambodians (92%) and lowland Laotians (66%) acknowledged language as a barrier than other ethnic groups ( $P < .01$ ), and almost twice as many women as men reported language problems ( $P < .0001$ ). The second most frequent barrier was not knowing enough about family planning to be able to ask questions (21%). Although men reported this less often, the proportions of men and women were not statistically different.

Other barriers to getting family planning information were related to physical access—cost, waiting time, transportation. A possible cultural barrier, the fear for women of being examined by a male physician, turned out to be a minimal problem, as did the fear of a physical examination.

**Discussion and Conclusions**

Empiric observations by health providers and preliminary surveys of the health status of these refugees indicate that structural barriers to health care and cultural factors both contributed to significant gaps in the use of available health services.<sup>7,8</sup> While many Southeast Asians have accepted western curative medicine and use modern along with traditional remedies, problems still arise frequently during interaction with western medical providers. Cultural preferences of Southeast Asian groups that may present problems in the

medical setting include a dislike of medical intrusion into the body, such as an operation; an unwillingness to participate in procedures involving blood or blood loss; a preference for health care providers of the same sex as the client; and social conventions regarding eye contact, terms of address, and contact with certain parts of the body.<sup>8,9</sup>

The need for both family planning education and access to health services for refugees is shown by the notable gap between knowledge and practice revealed in our study of refugees attending county clinics. Only 70% of our respondents who were not pregnant and did not want to be pregnant were using a contraceptive method. Furthermore, while there was a generally high awareness of the more effective methods among those using contraceptives, only 45% were using one of the more effective methods. The findings indicate considerable variation, however, both within and among the major ethnic groups examined. While it is clear, therefore, that there is no typical Southeast Asian, recognition of certain measured differences between the major waves of refugee

TABLE 5.—Past and Present Use of Family Planning Methods

Family Planning Methods	Ever-Used Family Planning*		Currently Using Family Planning†	
	Number	Percent	Number	Percent
<b>More Effective Methods</b>				
Oral contraceptives . . . . .	108	31	29	9
Female sterilization . . . . .	48	12	45	14
Intrauterine device . . . . .	29	8	9	3
Male sterilization . . . . .	7	2	3	1
Injectable . . . . .	33	9	1	0
Subtotal . . . . .	178‡	43	87*	28
<b>Less Effective Methods</b>				
Condom . . . . .	86	23	23	7
Rhythm . . . . .	74	19	22	7
Withdrawal . . . . .	43	11	16	5
Abstinence . . . . .	43	12	5	2
Foam . . . . .	17	4	4	1
Douche . . . . .	20	5	2	1
Jelly . . . . .	2	1	0	..
Suppository . . . . .	4	1	0	..
Diaphragm . . . . .	2	1	0	..
Subtotal . . . . .	151‡	39	48‡	15
Any Method . . . . .	246‡	56	138‡	44

\*Of 438 ever-married respondents.  
 †Of 312 nonpregnant, married respondents.  
 ‡Totals and subtotals are less than the sum of all numbers because some people reported more than one family planning method.

TABLE 6.—Barriers to Getting Birth Control Information

Problem	Respondents*	
	No.	Percent
Language barrier . . . . .	163	73
Did not know about family planning . . . . .	48	21
Cost . . . . .	36	16
Waiting time . . . . .	23	10
Transportation . . . . .	10	4
Male doctor . . . . .	10	4
Fear of examination . . . . .	6	3
Other . . . . .	2	1
Unduplicated total . . . . .	224	

\*Respondents who indicated they had had a problem getting information on family planning (N=323) were prompted as to each of the possible types of problem listed above.

groups and among the five ethnicities studied in this largely second-wave group is important if the planning of education and services is to be appropriate to the specific needs of each subgroup. In general, while the contraceptive prevalence in our interview sample was 38%, comparisons of family size, fertility preferences, knowledge of reproductive physiology and contraceptive methods are closer to western norms among the Vietnamese, with the Hmong at the other end of the spectrum, and the Cambodians, lowland Laotian, and Mien generally in between.

It is clear from these reports and our own data that the fertility of refugees, particularly of second-wave refugees, in this country tends to reflect Asian more than American norms. Rumbaut and Weeks<sup>3</sup> have developed a conceptual model that takes into account the sociodemographic background, migration phenomena, and economic and cultural adaptation of these refugees in an excellent analysis of alternative patterns of fertility shifts that may be expected as adaptation to the US environment progresses. Our findings suggest that in applying this useful approach to policy determination and educational strategies to assist refugees in the assimilation process, ethnicity appears to emerge as the outstanding distinguishing factor within the refugee groups, while gender, rural or urban background, duration of residence in the United States, and refugee clinics attended are also significant variables.

In this study sample, 75% of the married women living with their husbands and not pregnant responded that they currently did not want any more children. Yet 15% did not appear to be aware that birth control methods can be used to prevent pregnancy, and of those who did profess awareness of family planning methods, further probing disclosed important gaps in the knowledge of how methods are actually used. While 90% of those responding that they knew of family planning were aware of at least one of the methods considered highly effective, only half reported that they knew how to use it, and only in the case of oral contraceptives were more than half able to describe its use correctly.

Among this group, many appeared to be unaware of available family planning services in their community or indicated that there were barriers to their use. The differences in the range of methods of which members of the various ethnicities are aware and the differences between the sexes within ethnic groups have implications for the content of educational approaches. This study underscores the need for specific information and education about both reproductive physiology and contraceptive methods. The fact that 78% of the sample responded that the decision to use family planning should be made jointly by husband and wife points to the need for counseling of couples and education in small groups, in addition to person-to-person communication. The ethnic and sex differences in knowledge, as well as the variation in individual sophistication, call for the provision of language- and culture-specific printed materials, including pictorial explana-

tions where necessary. These are not generally available in busy clinics or private physicians' offices. Particular attention should be given to education in spacing methods, in view of our finding of a frequent conceptual association of family planning with completed family size. Despite the relatively young age distribution of our sample, with 55% of the women in the study younger than 30 years, 61% of those currently using a contraceptive method declared that they wanted no additional children, while 39% were using contraception for spacing.

In addition to the need for language- and culture-specific educational materials, the provision of services by specifically trained and selected personnel is needed. Moreover, as both reductions in funding levels and changes in policies affecting eligibility further limit access to health services for refugees, in-service training and continuing education of mainstream providers become increasingly important. Our study shows the important differences in contraceptive method preferences and in the attitudinal determinants of compliance with contraceptive regimens that distinguish the refugees from other family planning clients and that require sensitivity and understanding on the part of providers.

Serious attention in the public sector to constructive steps to reduce these barriers to access to effective family planning information for Southeast Asian refugees cannot be disregarded as a temporary need. The demand for family planning services will undoubtedly increase as the adaptation process progresses. The number of income-eligible refugees requiring subsidized services will remain high as the second wave of immigrants in particular requires a longer period of adjustment to achieve self-sufficiency. Finally, new arrivals of refugees from Southeast Asia continue, albeit at a lower rate than in years past, and will continue for the foreseeable future, as thousands of refugees still in camps have applied for permission to immigrate to the United States. The evidence of a high cost-benefit ratio for subsidized family planning services shows the economic wisdom of policies in support of such services to these deserving new members of American society.

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