

KAP STUDY GUAM

POPULATION STUDIES
SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF HAWAII

Preliminary Report

A STUDY OF KNOWLEDGE, ATTITUDE, AND PRACTICE
RELATIVE TO FAMILY PLANNING AMONG INDIGENOUS WOMEN IN GUAM, 1969

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B. Bell
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I. INTRODUCTION

This is the second "KAP Study" completed by the Population Studies Unit of the School of Public Health, University of Hawaii. Since new family planning programs are now being instituted in many areas, there is a growing need for basic information which can be used in initiating and evaluating the programs. Particularly in areas where not much information concerning family planning is available, it is essential to measure the knowledge of, and attitude toward, contraception as well as contraceptive practice (Knowledge, Attitude, Practice).

The format for this study was developed in response to a need for a quick but reasonably reliable source of baseline data. The questionnaire used here was developed to provide these necessary data in the absence of good vital statistics concerning fertility, completed family size, infant mortality, and other basic demographic information.

Our experience has reinforced the conviction that interviewing in this kind of study can best be done by local women, provided they have received thorough training and are given continued supervision and support during the entire period of data collection. The recruiting of interviewers in Guam was done with the assistance of personnel from the University of Guam and the Guam Department of Public Health. The training was carried out primarily by Mrs. Bell, Research Associate, with the assistance of Miss DeSanna, then a graduate student in the Population Studies Unit.

Guam introduced comprehensive family planning services in 1968 as an integral part of their maternal and infant care services. We hope that the

information contained in this report will be useful as a yardstick for future program evaluation, as well as for planning and educational purposes now.

In order to more fully understand the setting in which this study was conducted, a description of Guam follows:

Government

Guam has been a Territory of the United States since 1898, almost completely under the administration of the United States Navy until formation of the Organic Act in 1950 which provides legislative local autonomy. At present, Guam's relationship with the United States Government comes under the general supervision of the Department of the Interior. Guamanians are citizens of the United States, but those who reside in Guam do not vote in United States elections and have no representation in the U. S. Congress. The local government consists of three branches: Executive, Legislative and Judicial. The Executive Branch is headed by a civilian governor appointed by the President of the United States, by and with the advice and consent of the U. S. Senate, to hold office for four years. There is a 21-member, all Guamanian, unicameral legislature, elected biennially by residents who have reached their 18th year. The Judicial Branch is headed by the Judge of the District Court of Guam who is appointed by the President of the United States with the advice and consent of the Senate and holds office for eight years.

Geography

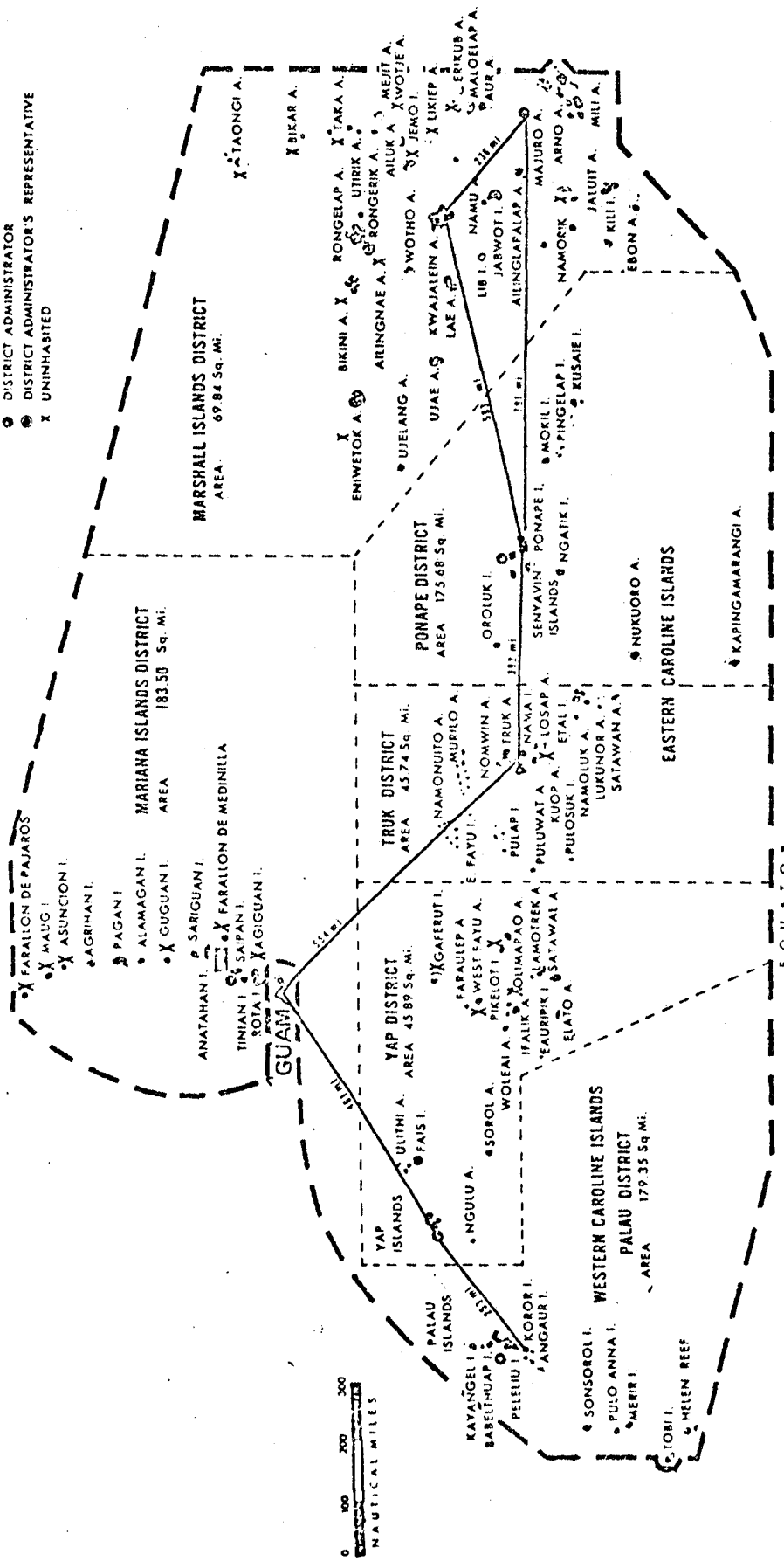
Guam is located in the western Pacific about six thousand nautical miles from San Francisco and four thousand from Hawaii. It is the largest of the Mariana Islands and is about thirty miles long and four to eight miles wide. Its total area is a little over 200 square miles. (See Map of Trust Territory.)

TRUST TERRITORY of the PACIFIC ISLANDS

NORTHERN MARIANA, CAROLINE, AND MARSHALL ISLANDS

97 INHABITED ATOLLS AND SEPARATE ISLANDS
 OCEAN AREA APPROXIMATELY 3,000,000 Sq. Miles
 LAND AREA APPROXIMATELY 700 Sq. Miles
 2,141 ISLANDS

- ☐ OFFICE OF THE HIGH COMMISSIONER
- DISTRICT ADMINISTRATOR
- DISTRICT ADMINISTRATOR'S REPRESENTATIVE
- ✕ UNINHABITED



NOTE: Broken lines indicate territorial area and districts of jurisdiction and are not to be interpreted as boundaries

Agana is the capital and, with adjoining Tamuning, the center of the business world. There is one major coastal roadway with a variety of "villages." Guam has a total of 19 major villages and each of these villages has a commissioner (sometimes an assistant commissioner also), a priest (sometimes more), and one or more public health nurses.

There is virtually no public transportation system and almost all of the 20,000 children attending public schools are transported by government buses to the schools around the island. There are some telephones on the island but the service is rather undependable. There is no mail delivery except to post office substations and to the village commissioners' offices.

The People

It is believed that Guam was inhabited by the Chamorros as long as 5,000 years ago. Their origin is obscure but scientists believe they were a group that became detached and isolated in the Marianas from the Proto-Malays in their migrations from Asia. Today, no pure-blood Chamorros exist; the present inhabitants are descendants of Spanish, Mexican or Filipino men and Chamorro women--the Chamorro men were practically all wiped out during the Spanish conquest. Natives nowadays refer to themselves as Guamanians; they resemble the Spanish, Mexican or Filipino rather than the Micronesians further east. Their culture is based on Spanish Catholic colonialism which is increasingly being overlaid with Americanism.

Language

Chamorro, the language native to the island, amply reflects the many years of contact the people had with the Spanish, and the more recent contact with the United States. Minority groups speaking languages of the Philippines and of the Trust Territory are now also in evidence. The

Chamorro language is a member of the far-reaching Austronesian language family which includes practically all of the languages spoken on the Pacific Islands, including the Philippines, Indonesia, Malaysia, and groups of people in Taiwan, Viet Nam, and even Madagascar. Present linguistic knowledge suggests that Chamorro is related most closely to some of the Philippine languages.

English is the official language of Guam, but not everybody speaks English. If one wishes to speak with the older people, a knowledge of Chamorro is practically obligatory; it is the preferred medium of communication between most of the middle-aged Guamanians; it is the most common medium of communication between Guamanians in the public school system. In most villages when the local commissioner wants to make an announcement, he is most effective when he uses both English and Chamorro. It is therefore necessary for public agencies in Guam to have some staff members who are comfortable using both English and Chamorro and who are also able to understand and convey even abstract concepts in both languages.

Population

At the last complete census, 1960, the population was 67,044 including U. S. servicemen and their families, with 34,762 "natives of Guam." In a local census in 1962, excluding military personnel, the population was 43,943 which comprised 37,705 natives of Guam, 2,343 Stateside Americans, 723 Hawaiians, 1,825 Filipinos, and 1,347 others. In the "Estimates of the Population of Puerto Rico and Other Outlying Areas of the United States: 1967 and 1968" published by the U. S. Bureau of the Census in June 1969, the total resident population was estimated at 100,100 with 83,000 civilian resident population. The 1969 estimations according to the village

commissioners' records give Guam a fluctuating population of 35,000 to 40,000 military personnel, around 60,000 civilians, and about 6,000 alien workers.

Religion

Roman Catholicism is the dominant religion of Guam, with the Roman Catholic Church claiming a membership of over 90 per cent of the civilian population. Other Churches on Guam are the Anglican Mission, the General Baptist Mission, and the Seventh-Day Adventist Mission.

Catholic religious rites and festivals are celebrated communally, with invitations generously extended to all neighbors and friends. The fiestas are in honor of patron saints of the villages and celebrations lasting sometimes throughout a weekend. A village goes to great expense in preparation for its fiesta. Other religious festivities include christening parties and weddings, efforts in which relatives and friends all contribute and help.

Education

Growth in population, through a birthrate much higher than that of the U. S., as well as by the increasing size of the military community, strains the resources of the public school system which is similar to that in the U. S. Two-year contracts are offered to teachers from the U. S. mainland to supplement local teachers; this creates a lack of continuity and understanding of student problems resulting from language and cultural differences. The University of Guam, located in Mangilao, is the only institution of higher education.

Family Life

The extended family with its mutual obligations and privileges is still among the most cohesive social force present in Guam today. Cooperation among relatives extends into most aspects of Guamanian life, and beyond these

obligations are the ties to families related by marriage or "compadreship." For example, godparents usually assume an economic responsibility and take a prominent part in such ceremonies as baptism, confirmation and marriage; the child in turn gives public display of respect and support in mutual enterprises or crises in the immediate family. The family often retains the aspects of a rural economic unit, men working together on enterprises such as housebuilding or repair; women and girls generally sharing household tasks, especially those connected with family or religious celebrations.

Recreational facilities and activities for adolescents are usually in the schools, in the villages, and in connection with Church activities. Village-sponsored basketball, baseball "Little League," occasional dances, and other primarily family-oriented functions are those in which family members may take part. Girls are still somewhat more restricted in their movement, with many parents still forbidding attendance at dances in high schools.

There are three theatres and two bowling alleys, all in Agana and Tamuning; a number of the villages have pool parlors.

II. METHODOLOGY

A. Sampling

Dr. W. Scott Wilson, Associate Professor of Anthropology and Director of the Council for Anthropological Research at the University of Guam, and Mr. James B. Swayne, Advisor on Comprehensive Health Planning of the Department of Public Health and Social Services, provided consultation in the field concerning the best procedure for adequate sampling commensurate with the adequacy and validity of available population data.

Practical and financial limitations made it impossible to do a house-to-house census prior to drawing a sample, although the absence of good census information would have made that desirable. Therefore, it was decided to use the village commissioners' files of family census cards as the best sampling frame available for this study, because (1) it was thought that presence of women aged 15-44 in a household could be determined from these commissioner cards, in advance of a visit; (2) these cards would give other clues as to the identity of a sample case; and (3) these cards were supposed to be updated continuously. Their use could also give experience for application to future sampling surveys. At the conclusion of the interviewing phase, we knew that some of these expectations were not met; however, the sampling frame was the best available under the circumstances.

Ten of the 19 villages* on Guam (see Map of Guam) were selected for this study in the following manner: villages were ordered by regions,

*Village = a commissioner's district

M A P O F G U A M



and the villages within each region ranked by population size; alternate villages from this array were chosen, starting with the first. Within each village so chosen a sample was selected by taking every 12th census card, and of these cards only those that contained at least one woman aged 15-44 was maintained. A first sampling of 766 names was obtained from every 12th card in the ten villages and of these 500 (an estimated 2 per cent of the women aged 15-44 in the population) were initially drawn in proportion to each village population size.

Unfortunately, during interviewing, it was found that many inaccuracies existed on the commissioners' census cards. People listed were not actually in residence in the village, for instance. Military dependents were enumerated although actually they were overseas while maintaining residences in the village. There were those who have two homes, resident in one only, or who alternate residence. There were young women who were on the U. S. mainland, working, going to school or on extended visits to friends and relatives, but remaining on the village rolls. Many families had moved to other villages, or off the island, without the knowledge of the commissioners' offices.

To handle this loss "substitution lists" were used consisting of the 266 names remaining after the first sample of 500 had been drawn from the original 766 names. It was necessary to use most of the names on the substitution lists, and the list for one village (Tamuning) was insufficient. In Tamuning, therefore, another 45 households were selected, taking every 32nd census card, resulting in a further sample of 59 names, from which the first 26 names were used for substitution. The responses from a total of 446 women comprised the data analyzed in this study (Table 1).

The sample was not as representative as had been hoped. Until more accurate census information is available, however, future sample studies will suffer similarly.

B. Questionnaire

The questionnaire was modeled after the one developed for the KAP Study in Hawaii. Suggestions and comments were solicited from all those interested in the study. Some of these suggestions were incorporated into the pretest questionnaire. After pretesting, minor changes in wording, more appropriate to local speech, were made with the help of the interviewers.

A translation of the final questionnaire into Chamorro was prepared, although interviewers were asked not to use this unless absolutely necessary, and then only for those words the respondent did not understand. During interviewing, it was found that there were a few older women who could hardly understand any English, and for them the entire translated form had to be used. There were two women, one from Palau and one from Saipan, who spoke very little English or Chamorro; their interviews could not be completed. (Appendix A: questionnaire and translation.)

The questionnaire was designed to elicit information broadly under the following headings:

Background characteristics: Age, education, training, occupation, income, household composition and religion.

Vital data: First marriage age, pregnancy history, living children and pregnancy terminations.

Knowledge: Present knowledge of contraceptive methods and programs for family planning, initial age and source of knowledge, and availability and source of contraceptive supplies.

Attitude: Ideal number of children, ideal pregnancy interval, desire for more children, attitude toward family limitation, readiness to

learn methods of family planning, source of influence on fertility attitudes.

Practice: Past, present and future practice of family planning by method and when started, reasons for not practicing.

C. Interviewing

From a sample of 500 women aged 15-44, 446 women were interviewed (89 per cent). Twelve women refused to be interviewed, while 42 women were "never home." (These were women who either worked at odd hours and could not be contacted even on weekends or in the evenings, or women who might have moved without anyone knowing it.) An effort was made to impress upon the interviewers that finding a respondent "not at home" was an unacceptable reason for loss of an interview; most of this group of women who could not be contacted had been visited as many as six times.

Interviewers were hired locally and given thorough orientation and training. The entire interviewing phase took eight weeks, with actual interviewing taking place during the last five weeks. (See Table 1 for sampling and interviewing results.)

In order to give a more meaningful account of the interviewing phase of this study, the following diary of events is included:

Friday, June 6: Departed for Guam. Arrived June 7 and settled into a government apartment near the Guam Memorial Hospital in Tamuning; provided with a government vehicle.

Sunday, June 8: Drove around island and familiarized ourselves with the location of the ten villages involved in the study: Dededo, Mangilao, Tamuning, Agana, Sinajana, Yona, Chalan-Pago, Santa Rita, Merizo, and Umatac.

Monday, June 9: Employed and trained a girl to begin sampling in the ten villages. (She went to each village commissioner's office and listed all women between the ages of 15-44 on every 12th census card. Our sample thus excludes the population living on military bases.) Began screening of applicants for prospective interviewers.

Tuesday, June 10: Established our office at the University of Guam. Met with Dr. Wilson and various administrative personnel at the University concerning the employment of interviewers, space arrangements for training, and other administrative details.

Wednesday-Sunday, June 11-15: Prepared materials for interviewers' training, set up time schedules, and wrote content of each training session. Continued with interviewer selection.

Monday, June 16: Began training of eight interviewers (local married women with children who could speak and write English and Chamorro, with high school education). The speaker for the first session was Dr. Wilson who gave an orientation of this study and a broad approach to the techniques of interviewing. Interviewers' manuals and materials on population dynamics were passed out and discussed for reference in future sessions.

Tuesday, June 17: Our second training session began with the films "Population Ecology" and "People by the Billions." These were followed by a presentation of population trends and implications, ending with a spirited discussion. Materials on family planning were passed out for study at the next day's session.

Wednesday, June 18: Dr. Wilson continued his talk on interviewer techniques, after which we went into detailed discussion of each technique, specifically probing and handling of special situations. After a break, the films "Family Planning" and "Planned Families" were shown. Many questions were asked by the interviewers and five of them said they were currently practicing a contraceptive method.

Thursday, June 19: The film "Techniques of Contraception" was shown after which Dr. Joy Benson, Chief of the Maternal and Child Health Program in the Department of Public Health, answered numerous questions and

dispelled many "old wives' tales" concerning the use of some contraceptive methods, especially the oral contraceptives and the intrauterine devices. Great enthusiasm was generated and one interviewer who has 13 children said "I wished I attended this class 13 years ago!" The second half of the session was geared to the application of the knowledge of contraceptive methods and the interviewing techniques to the KAP Study specifically.

Friday, June 20: Mrs. Soledad Tai, an experienced Guamanian Public Health Nurse, who had participated in the two earlier training sessions in family planning, helped in the role-playing session. She gave many insights into the generally male-dominated Guamanian culture such as getting permission from the husband or father, if he were at home, before interviewing the women of the household. She suggested that the Public Health Nurse in each village would be a good resource person in locating respondents. (We therefore asked Dr. Benson to provide us with a list of names of these nurses and their location in each of the villages.) Some time was given at the end of the session to filling out the various forms necessary for the employment of the prospective interviewers.

Saturday-Sunday, June 21-22: Sorted out the sampling lists of women to be interviewed. Prepared questionnaires for pretesting. Organized pretesting schedules and materials.

Monday-Thursday, June 23-26: Conducted personal instructions and pretesting of each interviewer. Two interviewers were tested each day beginning with role-play, then going to a randomly selected household, not in our sample, for actual interviewing, followed by detailed discussion of the answers and techniques. The latter part of the afternoons were used to contact each commissioner of the ten villages to explain this study to him and to ask for his help in assisting our interviewers in

locating the respondents because we found from the sampling lists that most of the households have no addresses on the census cards.

Friday, June 27: A final interviewers' training session was scheduled in order to get reactions and suggestions on revising the questionnaire for final use. The interviewers offered many helpful points and it was generally agreed that a word-by-word translation of the questionnaire into Chamorro was necessary to facilitate interviewing of the older respondents and to gain more rapport.

Saturday-Sunday, June 28-29: Retyped, mimeographed and collated the revised questionnaire as well as the Chamorro questionnaire. (The Chamorro translation was done by Mrs. B. Sablan, a good friend of Dr. Benson, with final collaboration by the interviewers.) Organized and assigned lists of names of women to be interviewed. Prepared lists of Public Health Nurses and village commissioners for the interviewers. (Village maps were given to us by the Zoonosis Control Section of the Department of Public Health.)

Monday, June 30: Actual interviewing began. Each interviewer was assigned one day each week to check in with the interviewers' trainers and all completed interview questionnaires were read and discussed before new assignments were made. (Actually, the interviewers came in whenever they had questions or problems because the use of telephones was very difficult on the island.)

Tuesday-Tuesday, July 1-15: Interviewing proceeded smoothly. However, the census cards in most villages were not up-to-date, and it was found that women in over one-third of the sample households had moved. We therefore had to decide, with concurrence from Dr. Wilson and Mr. Swayne, that we should interview women in the families that were presently living

in the sample households. Three of the villages were completed by the interviewers with the first assignments.

Wednesday-Friday, July 16-August 1: From this point on we were completing recall and callback interviewing in the seven remaining villages. Only six interviewers remained, one left for personal, family reasons and the other because she had accepted a permanent position. Inasmuch as this phase of interviewing presented more problems, the interviewers were coming in more frequently. Interviewing was slowed down somewhat by the Liberation Day festivities (July 17-21) and President Nixon's visit to Guam. Also, we had been most fortunate in June and the early part of July to have clear weather, but towards the end of July the heavy rains began, which slowed down the pace of interviewing and made the interviewers' tasks a bit more difficult.

We received one complaint phoned in to the Vice President of the University from a family in Sinajana. This area had been surveyed a number of times within the past year by several agencies, and the residents had become more wary of, and sensitive to, being interviewed. The complaint was resolved by an administrator of the University of Guam.

Two of the interviewers wrote reports on their experience (see Appendix B). At the end of eight weeks these women were tired but satisfied with their work and asked to be called again if we did another study on Guam. We were satisfied that they had done a good job.

III. FINDINGS

A. Background Characteristics

The ten sample villages may be grouped into four regions, namely: northern region (Dededo and Mangilao), north central region (Tamuning and Agana), south central region (Sinajana, Yona and Chalan-Pago), and southern region (Santa Rita, Merizo and Umatac). The north central region is the most urbanized area of the island, though not industrialized, and the southern region is the most rural (see Map of Guam).

Birthplace

Eighty-one per cent of sample women were born on Guam (72 per cent of the fathers and 76 per cent of the mothers having also been born on Guam); respondents in Merizo and Umatac were all native-born. The 8 per cent born in the Philippines are mostly located in Dededo and Agana, while the 6 per cent from islands of the Trust Territory are concentrated in Tamuning. The remaining 5 per cent were born mostly in Hawaii and the U. S. mainland. With such an overwhelming part of the sample being Guamanian, any analysis by ethnic background was omitted. The data suggests that indigenous Guam is ethnically an homogeneous society.

Age Distribution

The large number of women in the age-group 15-19 (32 per cent) is due to a proportionately larger young segment in the indigenous population which has recently increased significantly with the introduction of public health measures and a continuing high birthrate (see section on Fertility Pattern).

The age group 25-29 (9 per cent) is small probably because, since the Armed Forces is the main employer on the island, many Guamanians in this age group work for the military and may live on the bases or abroad.

Marital Status

It seems that the Catholic injunction against divorce still maintains its hold on Guam. Only two women in our sample (0.4 per cent) were divorced, (comparable to a 0.6/1000 divorce rate given for 1968 by the Office of Vital Statistics). It is not surprising therefore that only seven women of the sample (1.5 per cent) have been married more than once. Four women were separated from their husbands. Eleven were widowed. Seventeen were pregnant out-of-wedlock. And 174 young women had never been married or been pregnant. Of the remaining 238 women (52 per cent of the sample), 231 were then married and seven were cohabiting.

Education

In this sample, there is a difference between the educational level of men and women: 42 per cent of the men finished high school, only 35 per cent of the women did; the median grade finished by the men was between 10-11, while the women finished grade 9-10. Thus men seem to be slightly more educated than women. The median level of education for both is somewhat lower than that for the U. S. (median of 11-12 grade for this age group in 1960 Census).

Occupation and Net Salary*

As expected, most of the sample women were not employed (68 per cent), although this ranged as low as 47 per cent in the village of Mangilao

*Occupations grouped according to the 1960 Census categories.

(possibly due to the many employees needed by the University). On the other hand, the unemployment rate for men is quite low: only 3 per cent; 57 per cent of the men in white collar occupations (professional, managerial, sales, clerical, and crafts) and 40 per cent in blue collar occupations (operative, service, farm, and labor).

The 138 employed women were mostly clerical and service workers with rather low income: 106 (77 per cent) of them earned a net annual salary of \$5000 or less. Their median net salary was \$4204.30. Of the 238 employed men, six were unemployed and the net annual salaries for the remaining 232 were grouped as follows: 43 per cent \$5000 and under (mostly in the service and labor jobs), 31 per cent \$5001-7000 (generally in the operative, crafts and clerical positions), and 21 per cent \$7001 and over (mainly in professional, managerial and sales occupations). The median salary for men was \$5267.60. The wives of 5 per cent of the men did not know what salaries their husbands were getting.

Household Composition

The large size of the average household (median of eight) almost certainly describes the present Guamanian extended family. Two facts contribute to this large household: the large number of living children in each family (median of 4 and average of 4.9 per sample woman), and the inclusion of grandparents and other relatives in the permanent household structure. The village of Chalan-Pago, for instance, has almost one-third of the sample women living in households having more than a dozen persons.

B. The Influence of Church and Community

Church Attendance, Church and Community Activities

Of the 446 sample women, only twelve were Protestants, three were Modeknei (a native Palauan faith), and two had no religious affiliation. The remaining 96 per cent of the sample was Catholic. Therefore, an analysis by religious affiliation seemed useless. An attempt was made to determine difference in "religiosity" (church attendance and participation in church-sponsored activities) and social participation such as membership in civic groups.

In this sample, it seemed that church attendance was inversely related to participation in church-sponsored activities (Table 2). Part of this may be a spurious relationship, due to the fact that 70 per cent of sample women indicated that they attended church services regularly (at least once a week).

Church attendance therefore could not be taken as an index of "religiosity." It showed no relationship with contraceptive use.

The expectation that women who participate in any kind of social activities have more chance of being exposed to family planning ideas or information, and would more likely be users of a contraceptive method, was not confirmed: our data show no such relationship (see Table 3).

Since the practice of contraception is apparently not influenced by the degree of "religiosity" (as measured by regularity in church attendance) in this overwhelming Catholic island, the churchgoer seems to be just as receptive to contraceptive advice as others.

In summary, it would seem that, although Guam is predominantly Catholic, information about family planning would be generally accepted. This

statement is reinforced further by the fact that 78 per cent of this sample wish further knowledge in contraceptive methods and only 2 per cent specifically said they do not want to use a method of contraception because of religious beliefs, with the remainder being non-committal.

C. Fertility Pattern

Population Trend

According to the statistics given in the Annual Report 1968, of the Office of Vital Statistics on Guam, the birthrate in 1968 was 26.4 per 1000 population and the death rate was 3.7/1000. By comparison, the United States in 1968 had a birthrate of 18.5/1000 and a death rate of 9.5/1000. The exceedingly low death rate for Guam may be due to a disproportionately youthful age group in the population which has recently increased with the introduction of public health measures. The birthrate also seems low, if one considers completed family size (see Table 4 for age-specific birthrates).

Pregnancy History

In this sample of 446 women, the following breakdown can be made by pregnancy history:

One hundred seventy-four women have never been married or never been pregnant and are under the age of twenty. They were not asked whether they had ever tried to space or limit pregnancies in the past.

Seven women were married but have never been pregnant. Two of them tried to space pregnancies, but none have tried to limit. Also, none were presently practicing a contraceptive method.

Thirty women had only one pregnancy, and 16 of these have tried to space, eight have tried to limit, pregnancies. Eleven of them are now users of a modern contraceptive method. Of the 17 never-married women who have been pregnant once, 16 said they have tried to practice contraception. (See Graph 1 for proportions of sample who were pregnant before, during or after the year of their first marriage.)

Of the 235 women who have had two through 17 pregnancies, 71 per cent have less than half their pregnancy-intervals greater than two years. About one-quarter of these 235 women have nine or more pregnancies, and about one-eighth do not have any pregnancy interval greater than two years. Even though 49 per cent of these women said they tried to space their pregnancies and 39 per cent tried to limit the number of pregnancies, they apparently were not very successful in their efforts. Discouragingly, only 25 women (11 per cent) have all their pregnancies two or more years apart and these same 25 women have from two to five pregnancies each. To health agencies it must be of some import that one-quarter of the remaining 210 women are below the age of 25 and, therefore, can expect about 20 more child-bearing years!

Fetal and Infant Mortality

Graph 2 shows the total number of pregnancies the 265 ever-pregnant sample women have had, and the total number of fetal death, infant deaths, and deaths after one year of age. In order to compare these figures with the report, "Infant and Fetal Mortality of the Indigenous Population of Guam, 1965-1967," compiled by the Office of Comprehensive Health Planning in Guam, we have extracted from the sample the fetal and infant deaths for the year 1965-1967. The fetal and infant mortality rates for this sample compared to figures from the above report are shown as follows:

<u>Fetal mortality rate</u>	
From report	From this sample
19.4/1000	195.1/1000
<u>Infant mortality rate</u>	
From report	From this sample
25.2/1000	28.6/1000

The great difference between the two fetal mortality rates must be due to the fact that only fetal deaths registered at the Health Department (deaths after 20+ weeks of gestation) were used in the government report whereas, for this study, fetal deaths were reported by the mothers themselves, irrespective of duration of gestation period. The rates for infant deaths are more nearly comparable between the government report and this sample, for obvious reasons.

D. Contraception

1. Knowledge

Most women in Guam have some knowledge of contraceptive methods. Ninety-one per cent of the sample know of at least one method. A majority (79 per cent) know about oral contraceptives. Other contraceptive methods known, in descending order, are condom, IUD, rhythm, diaphragm, foam/jelly/tablet, withdrawal, douche, and abstinence.* There are a few who know of such folk methods as "eating boiled herbs and vegetables such as atmagooza (something like bitter melon)," "drinking native medicine with vinegar," or "douching with vinegar and herb solution." (Table 5a and 5b.)

The age at which contraceptive knowledge is first acquired by this sample is rather late: median age of 19. Also, many have not learned from reliable educational sources such as the health agencies, medical personnel, or schools; these sources together only account for 55 per cent of the sample. On the other hand, 69 per cent** give relatives and friends as one of their sources of knowledge; the mass media provide another dubious source of knowledge to 38 per cent, with some of them mentioning such magazines as True Romance or True Confession (Table 6a and 6b).

However, it is encouraging to find that the response pattern is reversed when asked where they would seek advice in the future: most women would turn to the health agencies. Only 6 per cent give relatives and friends as a future source whereas 86 per cent give health clinics and doctors (Table 7). Interestingly, in Umatac, a majority of the respondents

*The unusually low percentage of women who know the abstinence method may be due to the fact that many women do not consider it to be a method and therefore do not give it in their answers.

**Since there are many women who learned from more than one source, percentages add up to over 100.

give the public health clinic as a future source of advice, in Agana more than half indicate they will go to other health clinics and hospitals, and in Yona half would go to a private doctor (Graph 3). In view of the relatively small sample in each village, these differences between villages are probably not of great significance.

When asked who would pay for their contraceptive supplies, only 17 per cent of the sample answered the public health clinic. This indicates that many women are not aware that free contraceptives are given by the public health clinics. However, of the 117 women (26 per cent) who gave the public health clinic as a future source of supplies, only one-third do not know that contraceptives are given free.

As expected, women currently practicing contraception are more familiar with the public health clinic as a source of advice and supplies.

2. Attitude

Most of the sample women desire further knowledge of contraceptive methods; when asked if they wish to learn more about how to prevent pregnancy, 78 per cent said yes, 9 per cent said no, and the rest think they know enough or are not sure.

About one-third of the women indicating they desire further knowledge are between the ages of 15-19, with most of them having never been married or pregnant. An attempt was made to see whether there is a difference between the age groups 15-17 and 18-19 (i.e., below and above high school graduation age): no significant difference was found by chi-square test (Table 8).

Surprisingly, in the more urban north central region (Tamuning and Agana), only 70 per cent of the women desire further contraceptive knowledge, probably due to the sizable number of migrants from the Trust

Territory who have not yet been exposed to family planning information. On the other hand, in the less urban northern region, 87 per cent wish to learn more about contraception (Table 9).

It is not surprising that a relationship is found between size of household and desire for further contraceptive knowledge: more women in households larger than the median (8 persons) want further information. Women living in larger households are also the ones who are older than the average, and have more children.

Most of the sample women (61 per cent) desire four or less children with the median number of children desired between three and four (Graph 4). There is no difference in preference for boys or girls; the median for the desired number for either is between one and two each.

The ideal number of years between pregnancies, as expressed by almost half the women in the sample, is two years, and about one-third felt that three years is an ideal interval.

Few women come up to these ideals however. Current practice is quite different from what women say they want. In this sample older women, women with more children, and women from large households express a dissatisfaction with the traditional practices. What they say about ideal family size and about spacing between pregnancies is not what they do. Probably this can be interpreted as an expression of a desire to practice contraception.

3. Practice

Spacing and Limiting Pregnancies. Data on spacing and limiting pregnancies in the past is important in that it indicates to what extent women have tried to practice family planning, regardless of methods used.

In this sample, there are 272 ever-married or ever-pregnant women. Half of these women have tried to space, while only 38 per cent said they

have attempted to limit pregnancies. A majority of the women who have tried to limit pregnancies have also tried to space pregnancies. It seems that spacing pregnancies is more common than limiting, except in the villages of Umatac, Santa Rita and Tamuning where the trend is slightly reversed, though it is doubtful that this reverse is significant, due to the small sample involved in each village (Graph 5 and Table 10).

Women who have tried to space their pregnancies are younger in age than women who have tried to limit their pregnancies: the largest number of "spacers" are in the age group 25-29 whereas the largest number of "limiters" are in the age group of 35-44 (Graph 6).

A woman's past decision to space or limit her pregnancies seems to be influenced by the number of people living with her. Women who come from larger households make greater efforts to control the size of their families: those who come from households of six or more persons make up 66 per cent of the "spacers" and 80 per cent of the "limiters."

It follows, then, that the number of living children also influence a woman's decision to limit pregnancies. Over half of the women having seven or more living children have attempted to limit pregnancies against 43 per cent for women having less than seven.

Users, non-users, and refusers. In this sample, 27 per cent are current users (however, of the 238 women who have mates, 45 per cent are users), 64 per cent are non-users, and 9 per cent are refusers (Graph 7).

Of the 39 women who are refusers, ten express negative feelings about contraception but cannot or will not give any reason (they are of all ages); another ten give strong religious conviction as the reason (predominantly of older age); and the other 19 wish to become pregnant at that time (mostly of younger age).

Of the 287 women who are non-users, 11 per cent say they have no need of contraception due to menopause, "operation," or infertility stemming from illness; 8 per cent say they are pregnant at the time; 59 per cent give "no sexual relations" as a reason (of these, about three-quarters are between the ages of 15-19); another 15 per cent do not have a reason for not practicing contraception, they are not averse to it, they just "have not gotten around to it;" a remainder of 7 per cent would like to use contraceptives but are afraid for various reasons (Table 11).

For the 120 users, the most common method is the oral contraceptives (34 per cent), followed by the IUD with 22 per cent. Younger women are more inclined to use the Pill while older women tend to choose the IUD. Also, women practicing contraception are generally of older age: almost half of the users are between the ages of 35-44, an age cohort which comprises only 31 per cent of the sample (Table 12).

As expected, women who have had more pregnancies tend to be users; of the users, 64 per cent have had five or more pregnancies (Graph 8). Also, women who are from larger households are more inclined to practice contraception: 78 per cent of the current users live in households of six or more persons.

Area of residence indicates an interesting contrast for one of the villages; Graph 9 shows that about half of the sample women from Dededo are practicing contraception as compared to 27 per cent for the sample in general; the middle-class Kaiser housing development in Dededo may account for this higher percentage.

Women who have graduated from high school seem to practice contraception more than those who have not. Similarly, those who are employed and those who earn a net income of over \$5000 annually are more likely to be users (Table 13).

The pattern of usage in Guam is strikingly similar to usage in other areas where modern contraceptive services have recently been introduced; users are to be found first among somewhat older, more educated, women with more children and from larger households.

IV. SUMMARY

This study was undertaken to gather baseline information useful to the Guam Department of Public Health which started a comprehensive family planning program in 1968. The questionnaire was designed to gather data on contraceptive knowledge, attitude and practice, including some basic fertility information to supplement demographic data now available.

A sample of 446 women, representing about 2 per cent of the indigenous female population aged 15-44, was interviewed during June and July, 1969, by eight Guamanian women specially trained for the interviewing. Ninety-six per cent of the sample was Roman Catholic, 81 per cent was born in Guam, 68 per cent was not employed, and the median age was between 24-25 years (due to a disproportionately youthful age distribution in the population). This sample, then, was largely composed of young, native-born Guamanian, Catholic homemakers.

There seems to be no great objection to contraception; in fact, it can be said that there is a general desire to know more about family planning. Those women in the sample who currently are living with spouses are also the ones who have made greater efforts to learn about, and practice contraception.

Although their knowledge of contraception may not be very complete, most of the women in the sample are at least familiar with one or more methods of contraception and want to learn more. The extent of their knowledge is probably limited when one takes into account that they have learned about contraception primarily from relatives and friends and from the

mass media. Fortunately, most of them say that in future they will consult health agencies and private doctors for information. Knowledge of the Public Health Department's family planning clinics is not widespread: only 27 per cent see these clinics as a source of advice and most women are not aware that the clinics offer free contraceptive supplies.

The majority of sample women express the desire to have not more than four children: two boys and two girls; and the ideal interval between pregnancies is two to three years. Many of the ever-pregnant women, however, have exceeded their desired number of children, and few have managed the ideal pregnancy interval.

The decision to use contraception is not affected as much by occupation, level of education, religious beliefs or activities, as it is by number of pregnancies, number of living children, and household size. Women who are from large households do make a greater effort to practice contraception: most of the users are those who already have large families.

This sample shows two major groups of women who are most receptive to family planning services. There is a large group of older women, having over four children (exceeding the number they desire), who want contraceptive advice; this group needs family planning services immediately. There is another group of young women, for the most part as yet unmarried, and some of them as young as fifteen, who indicate that they want to learn about contraception in order to plan their families in the future; this group needs family planning education.

TABLE 1 -- SAMPLE DISTRICTS AND THEIR POPULATION; SAMPLE SIZE; NUMBER OF WOMEN INTERVIEWED IN EACH DISTRICT

Districts	(a) Population (1)	(b) Estimated Women (2) 15-44	(c) Sample Size	(d) Number of Women Interviewed	Sample as Proportion of Pop. (Percent d/b)	"Success" of Survey (Percent d/c)
NORTHERN REGION						
Dededo	5,332	1,066	61	60	5.6	98
Mangilao	3,417	683	38	36	5.3	95
NORTH CENTRAL REGION						
Tamuning	6,320	1,264	114	93	7.4	82
Agana	2,356	471	35	29	6.2	83
SOUTH CENTRAL REGION						
Sinajana	5,159	1,032	82	68	6.6	83
Yona	2,971	594	35	34	5.7	97
Chalan-Pago	2,233	447	43	39	8.7	91
SOUTHERN REGION						
Santa Rita	2,440	488	33	33	6.8	100
Merizo	1,807	361	31	30	8.3	97
Umatac	<u>912</u>	<u>182</u>	<u>28</u>	<u>24</u>	<u>13.2</u>	<u>85</u>
TOTAL	32,947	6,588	500	446	(av. 6.8)	(av. 89)

(1) Isand-wide Census reported by Village Commissioners, April 30, 1968.

(2) These estimations are calculated according to a "rough rule of thumb that about one-fifth of the total population are women of child-bearing age." Cf: Samuel M. Wishik, "A Base Line for Evaluating National Population Control Programs," 1968.

TABLE 2 -- NUMBER AND PERCENT OF CONTRACEPTIVE USERS AND NON-USERS, BY CHURCH ATTENDANCE AND PARTICIPATION IN CHURCH AND COMMUNITY ACTIVITIES

	Users		Non-users	
	Number	Percent	Number	Percent
<u>Church Attendance*</u>				
Regularly	84	70%	250	77%
Not regularly	36	30	76	23
Total	120	100	326	100
<u>Church Activities</u>				
Participating	46	38	156	51
Not participating	74	62	160	49
Total	120	100	326	100
<u>Community Activities</u>				
Participating	45	37	140	43
Not participating	75	63	186	57
Total	120	100	326	100

*Regularly = those who attend at least once a week.

Not regularly = all others, including 12 women who never attend services.

TABLE 3 -- NUMBER AND PERCENT OF PARTICIPANTS AND NON-PARTICIPANTS IN
CHURCH AND COMMUNITY ACTIVITIES BY, USE AND NON-USE OF CONTRACEPTION

	Church activities	
	Do participate	Do not participate
Users	46 (22%)	74 (32%)
Non-users	166 (78%)	160 (68%)
Total	212 (100%)	234 (100%)

	Community activities	
	Do participate	Do not participate
Users	45 (24%)	75 (29%)
Non-users	140 (76%)	186 (71%)
Total	185 (100%)	261 (100%)

TABLE 4 -- AGE-SPECIFIC BIRTH RATES (livebirths per 1000 women of specified age) GUAM

Mother's Age	Guam	
	Infant and Fetal Mortality Study*	Present Study, 1968
15-19	70.6	62.0
20-24	185.9	229.7
25-29	149.4	317.0
30-34	85.9	291.6
35-39	42.2	175.4
40-44	11.7	74.0
Total Fertility Rate		5748.5

*See Infant and Fetal Mortality of the Indigenous Population of Guam, 1955-1967, Office of Comprehensive Health Planning, March 1969. "The population data used in computing fertility rates for Guamanians were obtained from a report for April, 1967, published by the Chief Village Commissioner which was compiled by village commissioners from census cards maintained in their offices. It is believed that the census count of the village commissioners is grossly inaccurate with respect to some population groups. For example, the report shows only 3,886 Guamanians under 5 years of age. Since there are about 1,600 Guamanian births annually, we would expect closer to 8,000 in this age group. In the absence of other information, the commissioners' data were used, recognizing the possibility that the data may be grossly inaccurate."

Note: The "total fertility rate" is the sum of age-specific birth rates of women 15-44 multiplied by 5.

TABLE 5a -- KNOWLEDGE OF CONTRACEPTIVE METHODS*

Methods	Number of Women Who Have Knowledge of the Contraceptive Methods Listed	Percent
Abstinence	12	2.7%
Withdrawal	42	9.4
Rhythm	119	26.7
Condom	150	34.6
Douche	29	6.5
Diaphragm	45	10.1
Foam/jelly/tablet	43	9.6
Oral pill	350	78.5
IUD	148	33.2
Folk methods	2	0.4
Don't know	39	8.8

*Since there are many women who know of more than one method, the number of women adds up to over 446, and the percentages add up to over 100.

TABLE 5b -- NUMBER OF CONTRACEPTIVE METHODS KNOWN

Number of Methods Known	Number of Women	Percent
One	119	26.7%
Two	146	32.7
Three or more	140	31.5
Folk methods	2	0.5
Don't know	39	8.7
TOTAL	446	100.1

TABLE 6a -- WHERE WOMEN LEARNED ABOUT CONTRACEPTIVE METHODS*

Sources of Information	Number of Women and Where They Learned About Contraception	Percent
Public Health Clinic	61	13.7%
Other clinic/hospital	49	11.0
Private doctor	24	5.4
Public health nurse	19	4.3
Social agency	1	0.2
Priest	5	1.1
Relatives & friends	306	68.6
Mass media	170	38.1
School	90	20.2
Pharmacy	3	0.7
Don't remember	1	0.2
Don't know	36	8.0

*Since there are many women who learned from more than one source, the number of women adds up to over 446, and the percentages add up to over 100.

TABLE 6b -- NUMBER OF SOURCES OF INFORMATION

Number of Sources	Women	Percent
One	131	29.4%
Two	241	54.0
Three or more	37	8.3
Don't remember	1	0.2
Don't know	36	8.1
TOTAL	446	100.0

TABLE 7 -- WHERE WOULD WOMEN GO FOR ADVICE AND SUPPLIES

Sources	For Advice		For Supplies	
	Number	Percent	Number	Percent
Public Health Clinic	120	27%	117	26%
Other clinic/hospital	134*	30	98**	22
Private doctor	130	29	74	17
Pharmacy	0	0	115	26
Other	43	10	7	1.5
Don't know	18	4	28	6
Won't tell	1	0	7	1.5
TOTAL	446	100	446	100

*Seventh Day Adventist Clinic = 45
 Guam Memorial Hospital = 42
 U. S. Naval Hospital = 24
 Catholic Medical Center = 19
 Other = 4

**Guam Memorial Hospital = 34
 U. S. Naval Hospital = 26
 Seventh Day Adventist Clinic = 21
 Other clinics = 12
 Catholic Medical Center = 5

TABLE 8. PERCENT OF SAMPLE WHO DO OR DO NOT WISH TO LEARN MORE ABOUT CONTRACEPTION, BY AGE.

Age	Wish to learn	Do not wish to learn	Know enough	Don't know	Total percent	Sample women by age
15-17*	83%	5%	7%	5%	100%	(99)
18-19*	87	7	4	2	100	(46)
20-24	85	8	6	1	100	(74)
25-29	71	17	12	0	100	(41)
30-34	83	11	6	0	100	(48)
35-39	72	9	19	0	100	(57)
40-44	64	11	25	0	100	(81)
Sample women in each group	(347)	(40)	(52)	(7)		(446)

*The 15-19 age group has been sub-divided into 15-17 and 18-19 in order to separate those under and those over high school graduation age.

TABLE 9 --- PERCENT OF SAMPLE WHO DO OR DO NOT WISH TO LEARN MORE ABOUT
CONTRACEPTION, BY AREA OF RESIDENCE

Area	Wish to learn more	Do not wish to learn more	Know enough	"Don't know"	Total percent	(Sample women in area)
Northern region (Dededo, Mangilao)	87%	6%	7%	0%	100%	(96)
North central region (Tamuning, Agaña)	70	20	8	2	100	(122)
South central region (Sinjana, Yona, Chalan-Pago)	63	7	9	1	100	(141)
Southern region (Saña-Rita, Merizo, Umatac)	74	8	17	1	100	(87)
(TOTAL NUMBER of Women)	(347)	(40)	(52)	(7)		(446)

TABLE 10 -- WOMEN WHO SAID THEY TRIED TO SPACE/LIMIT PREGNANCIES, BY AREA OF RESIDENCE

Area	Tried to space		Tried to limit		Sample women in area
	Number	Percent	Number	Percent	
Northern region (Dededo, Mangllao)	38	62%	20	33%	61
North central region (Tamuning, Agaña)	30	41	25	34	73
South central region (Sinajana, Yona, Chalan-Pago)	39	49	31	39	80
Southern region (Santa Rita, Merizo, Umatac)	25	43	26	45	58
TOTAL NUMBER	132		102		272

N = 272 ever-married/ever-pregnant women

TABLE 11 -- NON-USERS BY REASONS AND AGE

Reasons	Age					Total	
	15-19	20-24	25-29	30-34	35-39		40-44
Menopause, infertility, operations	0	2	1	4	5	19	31 (11%)
Pregnant at that time	2	7	4	3	2	5	23 (8%)
No sexual relations	125	32	4	1	3	6	171 (59%)
No reason	9	6	3	6	9	10	43 (15%)
Other*	3	6	3	3	2	2	19 (7%)
TOTAL	139	53	15	17	21	42	287 (100%)

*Includes "My husband won't let me," "I want to but I'm afraid," and "My mother might find out."

TABLE 12 -- USERS, BY METHODS AND AGE

Contraceptive Methods	Age				Number of users		
	15-19	20-24	25-29	30-34		35-39	40-44
Abstinence and withdrawal	1	2	4	2	5	20 (17%)	
Rhythm	0	1	2	4	8	22 (18%)	
Oral pill	2	9	8	9	6	41 (34%)	
Intrauterine device	1	1	5	5	9	26 (22%)	
Chemical, mechanical and folk*	1	1	2	3	0	11 (9%)	
TOTAL	5	14	21	23	29	28	120 (100%)

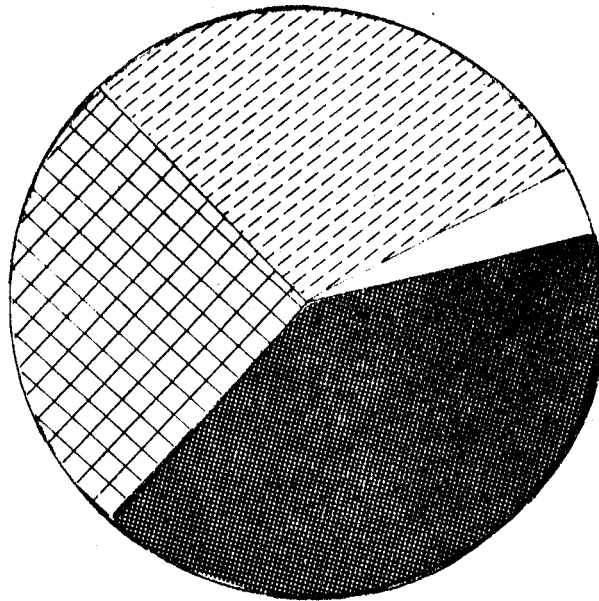
* Condom = 8, foam = 1, "drinking Kikkoman (soya) Sauce" = 1, "by having herbs and first come" = 1.

TABLE 13 -- PERCENT OF USERS AND NON-USERS BY, EDUCATION
AND EMPLOYMENT

	Users	Non-users	Total
<u>Education</u>			
High school graduates	32%	68%	100% (154)
Not high school graduates	24	76	100 (292)
<u>Employment</u>			
Employed	28	72	100 (144)
Not employed	26	74	100 (302)
<u>(Salaries)*</u>			
Over \$5000	38	62	100 (32)
\$5000 and under	25	75	100 (106)

*Of the 144 employed women, six would not give their salaries.

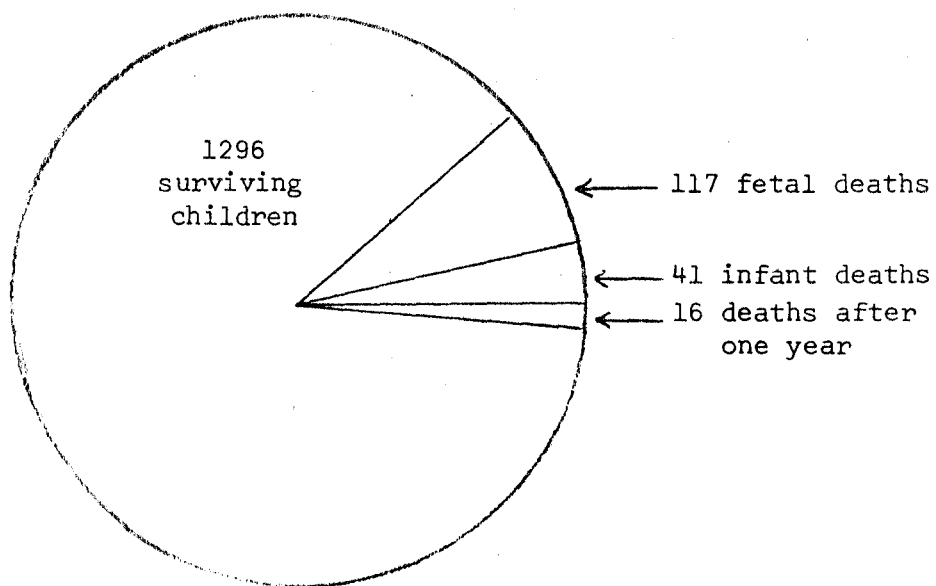
GRAPH 1 -- PROPORTIONS OF SAMPLE WHO WERE PREGNANT BEFORE, DURING OR AFTER YEAR OF FIRST MARRIAGE



- Women pregnant in same year as marriage (42 per cent)
- ⊗ Women pregnant before year of marriage (29 per cent)
- ⊘ Women pregnant after year of marriage (26 per cent)
- Women who have never been pregnant (3 per cent)

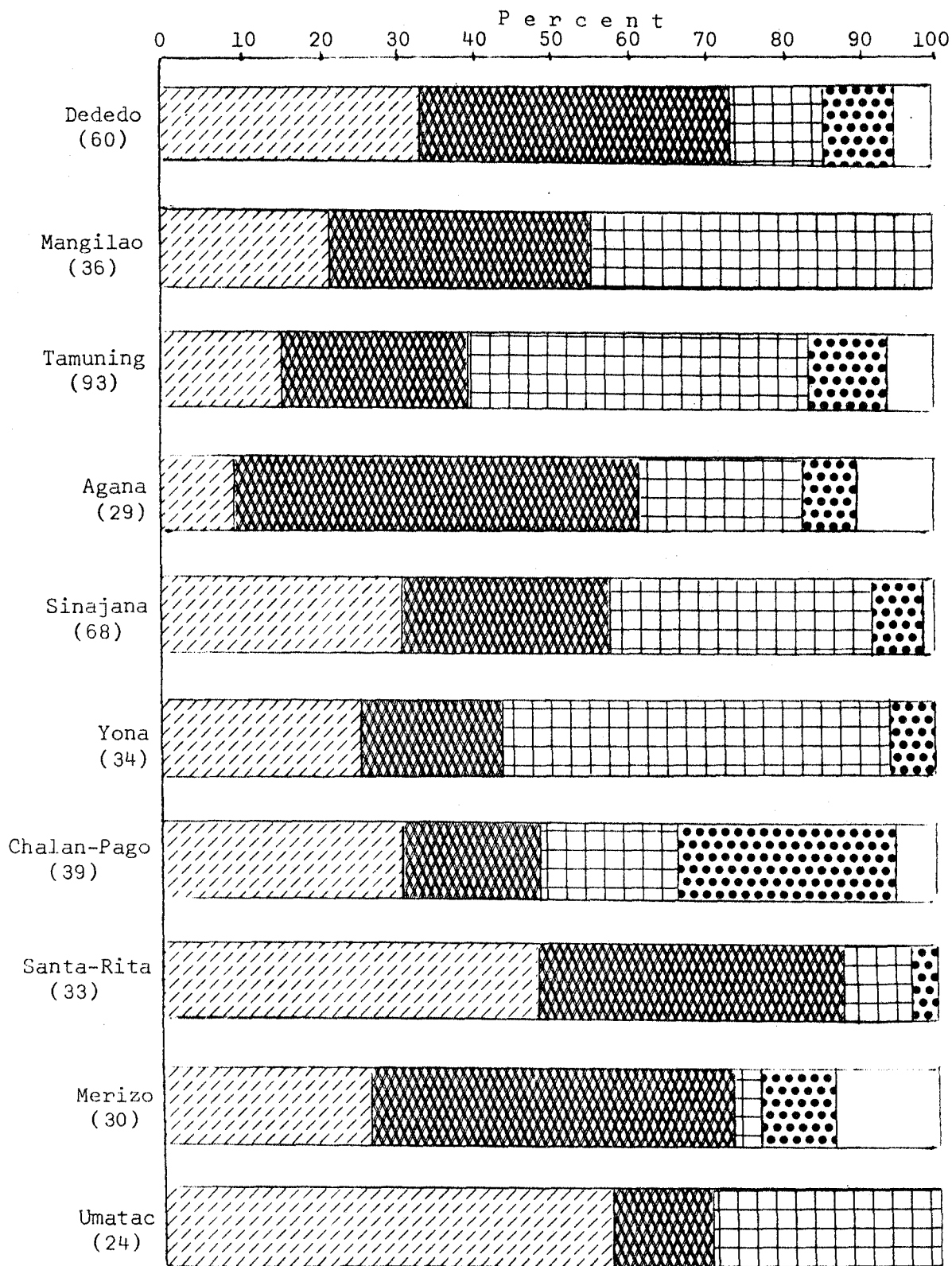
N = 255 ever-married women






GRAPH 2. PROPORTION OF SURVIVING CHILDREN



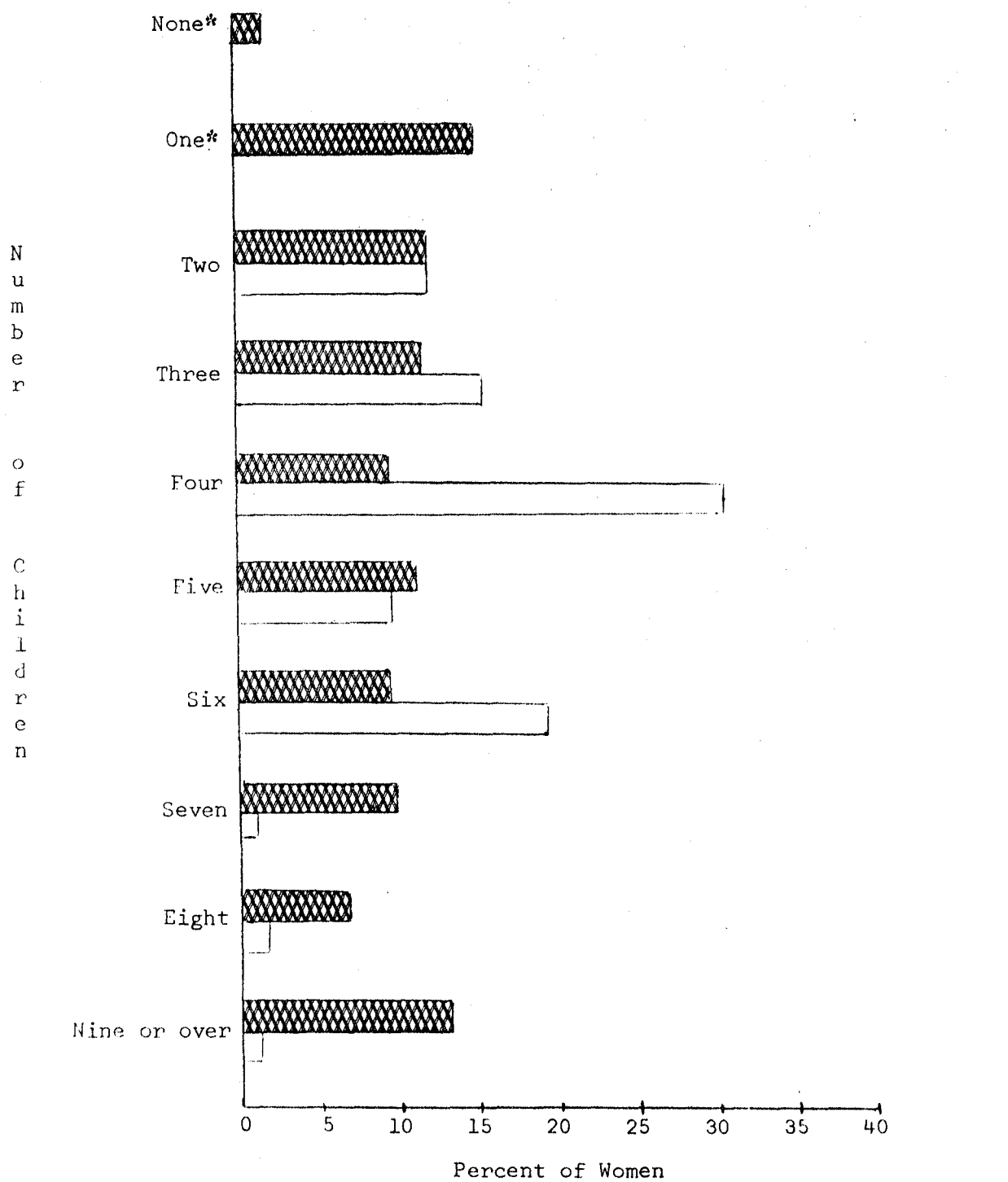
Total number of pregnancies of all sample women = 1470


GRAPH 3 -- FUTURE SOURCE OF ADVICE, BY AREA OF RESIDENCE




 Public Health Clinic
  Other clinics and hospitals
 Private doctor
  Others
 Don't know

GRAPH 4 -- NUMBER OF LIVING CHILDREN VS. NUMBER OF DESIRED CHILDREN BY PERCENT OF EVER-PREGNANT WOMEN



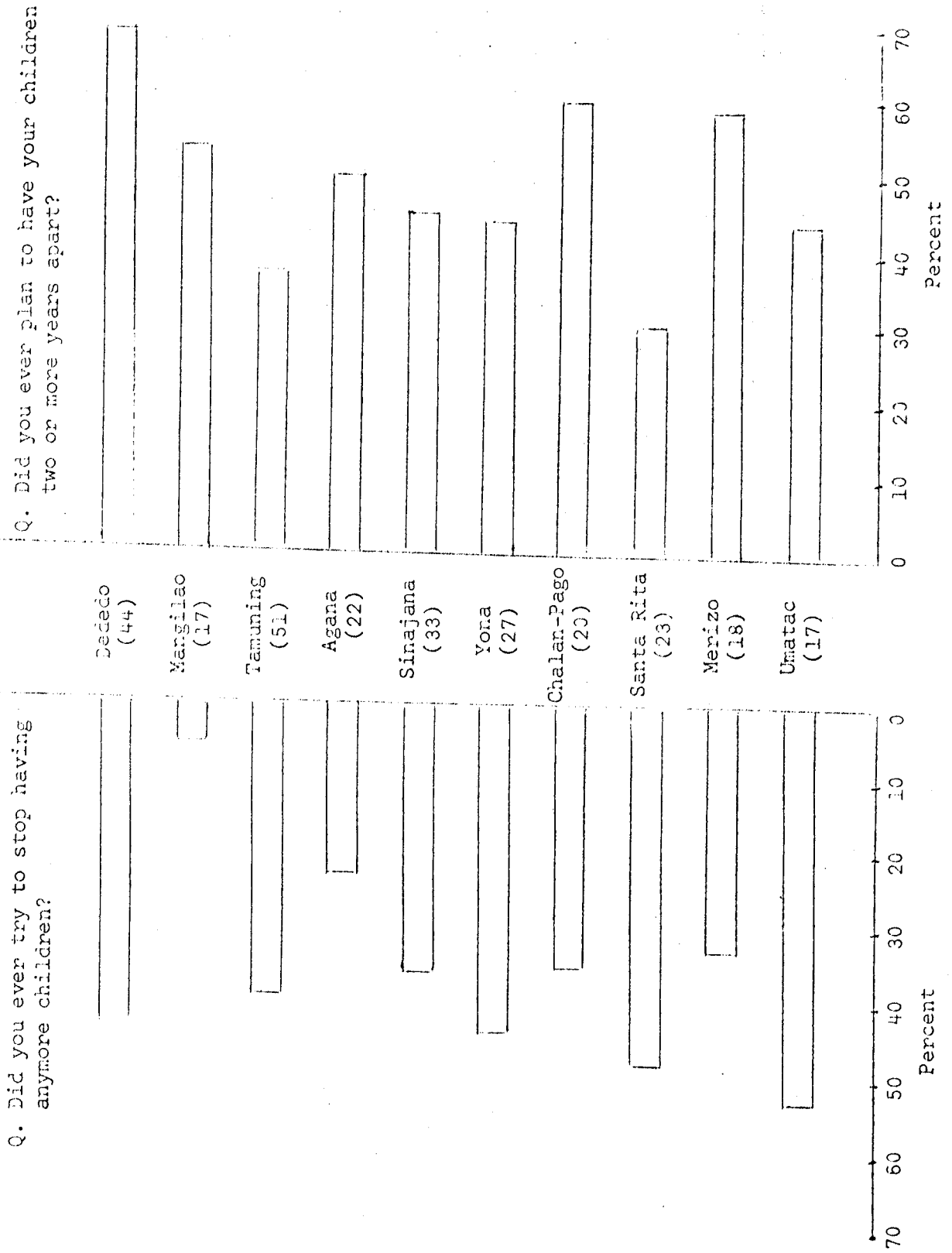
 Number of living children

 Number of desired children

N = 265 ever-pregnant women

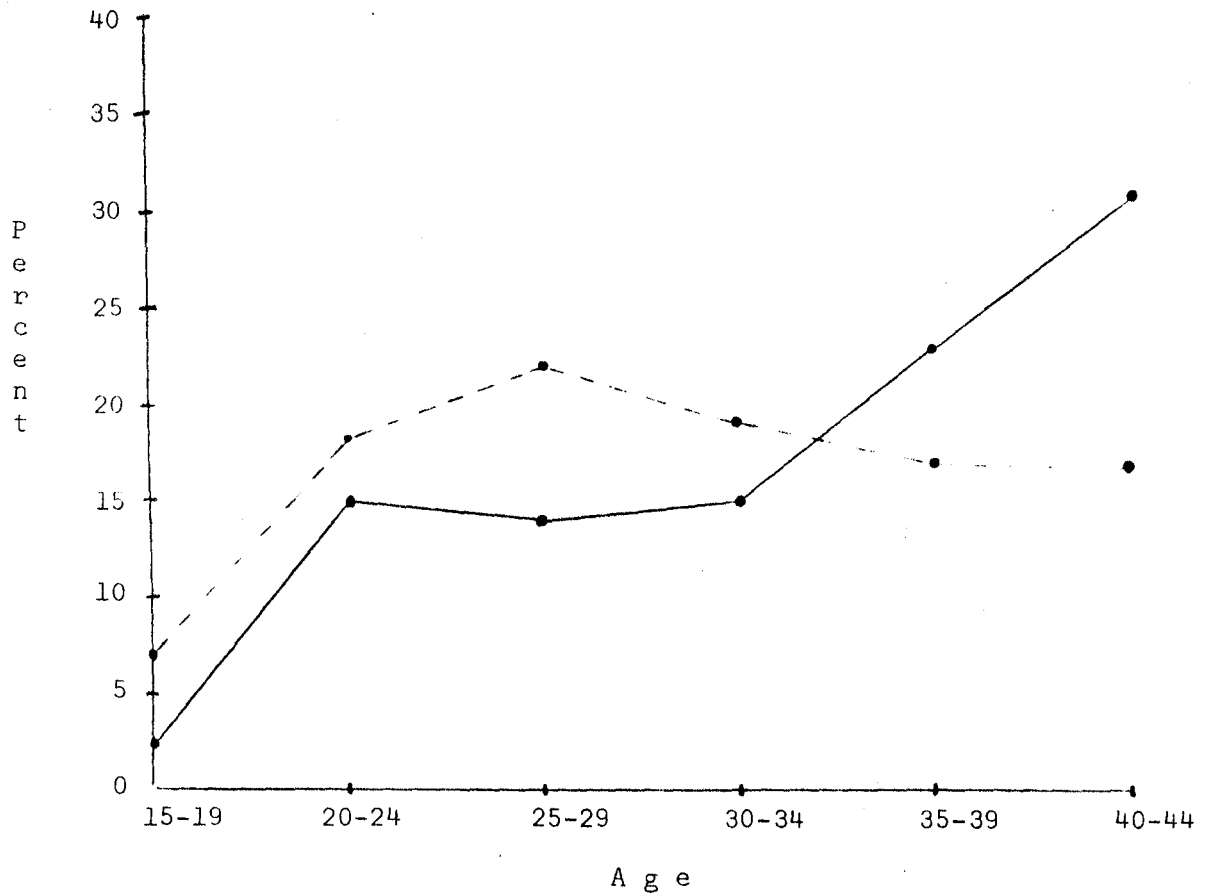
*No women desire either none or one child

GRAPH 5 -- WOMEN WHO TRIED TO SPACE VS. THOSE WHO TRIED TO LIMIT PREGNANCIES, BY AREA OF RESIDENCE



N = 272 ever-married/ever-pregnant women

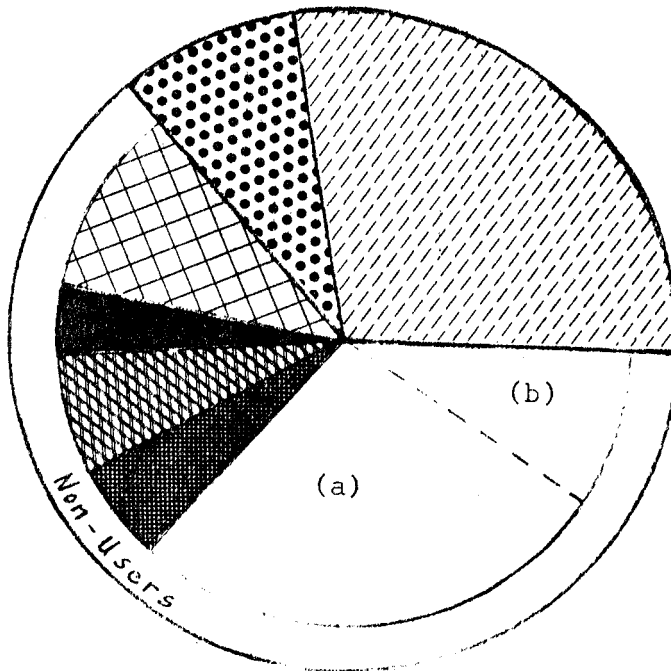
GRAPH 6 -- WOMEN WHO TRIED TO SPACE VS. THOSE WHO TRIED TO LIMIT PREGNANCIES, BY AGE





---- Ever-married/ever-pregnant women who tried to space pregnancies (132)

— Ever-married/ever-pregnant women who tried to limit pregnancies (102)


GRAPH 7 -- USERS, NON-USERS, AND REFUSERS IN SAMPLE





 Users (27%)


 Refusers (9%)


Non-users (64%) as follows:

 No reason (10%)

 Other reason (4%)

 Menopause and infertility (7%)

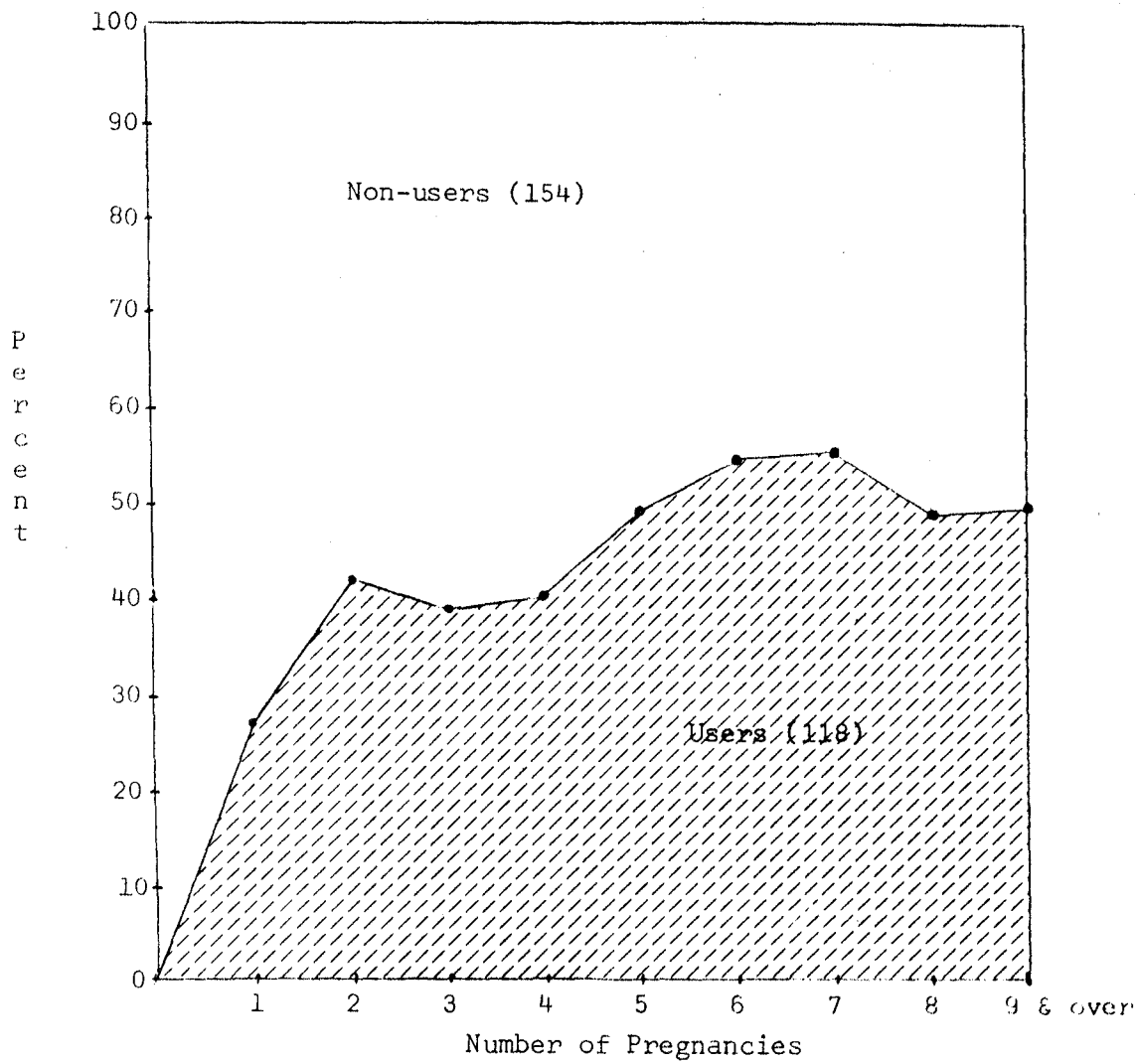
 Pregnant at that time (5%)

 No sexual relations (38%):

(a) Age 15-19 (29%)

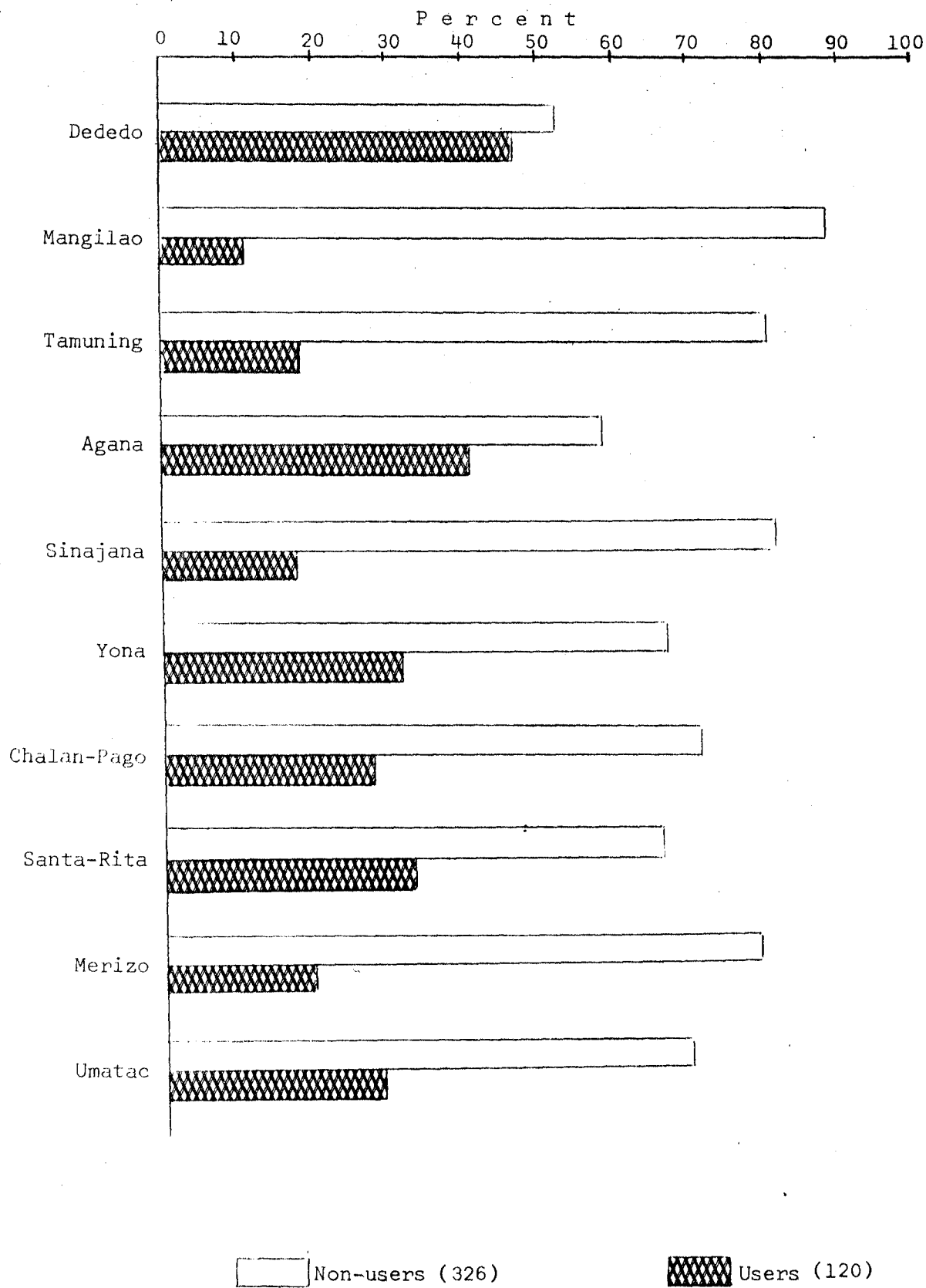
(b) Age 20-24 (9%)

GRAPH 8 -- PROPORTION OF USERS, BY NUMBER OF PREGNANCIES



N = 272 ever-married/ever-pregnant women

GRAPH 9 -- USERS AND NON-USERS, BY AREA OF RESIDENCE



APPENDIX A

(1) English Questionnaire

Guam KAP Survey, 1969, University of Guam.

KAP No. _____

District _____

My name is _____, and I am here representing the University of Guam. Information about families in Guam is needed by the University to provide help for future programs and this is one of the houses we have chosen for our Family Survey. Your help to make this possible will be greatly appreciated. All the information you give me will be confidential, that is, your name will not be passed on to anyone and the information about your family will be identified by a number which we will assign to each interview. This information will only be used together with similar information from other women in Guam.

1. How many years have you lived in Guam? (Where did you spend most of your life?) _____
2. Where were you born? _____
3. Where was your father born? _____
Where was your mother born? _____
4. What is your birthdate? _____
5. What grade did you finish in school? _____
6. Are you trained for any particular work? _____
(What?) _____
7. Do you work now? _____
(What job? Salary?) _____
8. How many persons are living in this house? _____
(Enumerate) _____

- 9. Are you married? (If married or cohabiting, continue with Q10; if divorced, separated or widowed, skip to Q14; if never-married, skip to Q16) _____
- 10. What is your husband's birthdate? _____
- 11. What grade did your husband finish in school? _____
- 12. Is he trained for any particular work? _____
- 13. Is he now working? _____
(What job? Salary?) _____
- 14. Is this (Was that) your first marriage? (If not, which marriage?) _____
- 15. What was the date of your (first) marriage? _____
- 16. Have you ever been pregnant? (If no, skip to Q23) _____
- 17. How old were you when you had your first pregnancy? _____
- 18. How old were you when you had your last pregnancy? _____
- 19. Are you pregnant now? (Month of delivery) _____
- 20. Can you tell me the sex and birthdate of each baby you have ever had, beginning with the first?

(Probes: Have you ever lost a baby? How did you lose the baby? When during the pregnancy did you lose the baby?)

(First name only) (Sex) (Birthdate) (Termination: induced or spontaneous abortions, stillborn, or child death)

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____

(Use back of page for additional babies)

21. Did you ever plan to have your children two or more years apart? _____
22. Did you ever try to stop having anymore children? _____
23. Do you do anything now to prevent pregnancy? (Differentiate between "no" and "don't need to") _____
24. (If yes to Q23:) What method? (Probe for one method use most often if more than one is given) _____
25. (If no to Q23:) Is there any reason that you do not prevent pregnancy? (Probe for one main reason. If pregnant, ask whether R did use a method and what) _____
26. What (other) methods do you know to prevent pregnancy? (Probe: What methods have you heard about to prevent pregnancy?) (Coder: Add answer to Q24 before coding) _____
27. Which method did you hear about first? _____
28. At what age did you hear about it (first method/preventing pregnancy)? _____
29. From what source did you first hear about preventing pregnancy? _____
30. From what other sources have you heard about preventing pregnancy? (Coder: Add first source in Q29 before coding) _____
31. Where would you go for advice about how to prevent pregnancy? (Who or what agency?) _____
32. Where would you go for supplies to prevent pregnancy? Who would pay for them? _____
33. Do you want to know more about how to prevent pregnancy? (If no) Why? _____
34. How many years do you think there should be between children? _____

35. If a good friend were to get married now, how many children do you think she would want to have? _____

36. How many boys and how many girls do you think she would want to have?

(Answers to the following questions should be determined while con-
versing; record the answers outside)

37. How often do you participate in community activities? _____

38. (Religion. If married: husband's religion also): (Probe) _____

39. How often do you join in church activities? _____

40. How often do you go to church services? _____

(Close the interview with neutral conversation)

(To be filled out after the interview - outside)

Interviewer's name: _____

Time entered respondent's house: _____

Time left respondent's house: _____ Number of contacts made: _____

Interviewer's remarks: _____

(2) Chamorro Questionnaire

1969 Na Reconosimiento pot Tiningo, Modo ni Y man mapractitica Guam.
Universidad Guam

Numeron Y Reconosimiento

Distrito

Y naanho, si _____ ya hu representa y Universidad Guam.

Informacion pot familia siha giya Guam manesesita gi Universidad para una
proviene pat macubre ayudo gi man mamamaila na programa siha ya este uno
gi gima siha man maayig para reneconosen mame na familia. In gos agradese
y ayudumo ni muna posisibly este na reconosemientto. Todo informacion ni
unnae yo umana secreto, enao na, y naanmo ti umanae otro taotao yan y
informacion pot y familiamo sa uma identifica pot numero ni y maapunta para
cada conferencia. Este na informacion uma usa yan y palo na informacion
ginen y palo na famalaoan Guam.

1. Cuantos anos de sumaga hao Guam? (Amano na sumaga hao mas abman gi
durante y linalamo?) _____
2. Amano na mafanago hao? _____
3. Amano no mafanago si tatamo? _____
Amano na mafango si nanamo? _____
4. Hafa na sakan na mafanago hao? _____
5. Hafa na grado unnafunhayan gi escuela? _____
6. Guaha chocho patticulat mafanaguemo? _____
(Hafa) _____
7. Machochocho hao pago? _____
(Hafa na chocho? Cuanto suerdo?) _____
8. Cuanto na taotao manasaga guine na guma? _____
(Numerea) _____

9. Umasagua hao? (Y angin umasaguao hao pat dumadanaha, continua esta y question 10; yangin dibotsiao, separao pat biuda, lagua esta y question 14; yangin ti umaasagua, lagua esta question 16) _____
10. Hafa cumpleanosna y asaguamo? _____
11. Hafa na grado gi escuela hanafunhayan y asaguamo? _____
12. Mafanague gue cuatquera na chocho patticulat? _____
13. Machochocho gue pago? _____
(Hafa na chocho? Cuanto suerdo?) _____
14. Este finenena umasagua mo? (Yangin ahe, mina cuanto?) _____
15. Hafa na fecha y finenena na umasagumo? _____
16. Guaha na mapotge hao? (Yangin taya, lagua esta question 23) _____
17. Cuantos anos hao gi finenea na mapotegmo? _____
18. Cuantos anos hao gi uttimo na mapotgemo? _____
19. Mapotge hao pago? (Hafa na mes na para unfanago?) _____
20. Sina un sangane yo cao lahe pat palaoan y famaguonmo yan y fechan y mafanagonniha, tutuhun gine y finenena na patgon?
(Aberigua: Guaha matai patgonmo? Hafa taimano na matai y patgon?
Duranten anai mamapotgenanaihon na matai y patgon?)
(Finenena na naan) (Lahe pat palaoan) (Fechan y mafanagonniha)
(Terminacion: Masuog pat naturat na mafag, matai huyong, pat matai despues mafanago dididi tiempo)
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

(Usa y santate gi pagena para mas famaguon)

21. Guaha na unplanea para ungaipatgon cada dos pat mas anos man adingonniha? _____
22. Guaha na unchage cumepara gumai famaguon? _____
23. Guaha unchochogue pago para munga hao mapotge? (Matca: Destingue entre "taya" yan "Munga sa ti manesesita") _____
24. (Yangin hungan): Hafa na sistema? (Aberigua para un metodo ni mauusa seso) _____
25. (Yangin ahe): Guaha mohom rason na ti un uusa? (Aberigue hafa un mayot na rason. Yangin mapotge, faisin cao hauusa ha yan hafa na mapotge) _____
26. Hafa (palo) na klase pat sistema untungo ni para chamo mapopotge? (Aberigua hafa tiningomo na klase ni para un proteje hao mapotge.) (Matca: Umenta y metodo pat sistema siha ni mapractitica pago gi question 24 untes de umamatca) _____
27. Hafa na klase pat sistema tiningomo finenena? _____
28. Hafa edatmo gi anai untungo pot este na klase sistema? _____
29. Ginen ma no finenena na humuyong y tiningomo pot no mapotge? _____
30. Ginen ma no na humuyong y palo na tiningomo pot no mapotge? _____ (Matca: Umenta y finennena na humuyong gi question 29 untes de unmatca) _____
31. Mano mohon unfalague para unfanule consejo para munga mapotge? (Haye pat hafa na representante?) _____
32. Mano mohon unfalague pot probencion para un proteje mapotge? Haye para un inapasiye? _____
33. Malago hao untungo mas taimano para munga mapotge? (Yangin munga hao, sa hafa?) _____
34. Cuantos anos mohon hinasomo para cada entalo famaguon? _____

35. Yangin guaha honesto na atungomo cumekeasagua pago, cuanto mohon na famaguon hinasomo malagona para uguaha? _____
36. Cuanto na lalahe yan cuanto na famalaoan mohon malagona? _____
(Y eppe para y question siha debe de uma determina duranten y combetsacion registro y eppe gi sanhiong)
37. Seso hao sumaonao gi mobimienton y comunidad? _____
38. (Religion. Yangin umasagua: Religion y asagua): (Aberigua) _____
39. Seso hao sumaonao gi mobimienton y gumayuus? _____
40. Seso hao humano para y serimonias y gumayuus? _____
(Huchum y confirecia gi cabiloso na combetsacion)

(Para umasahgune despues de y conferencia - gi sanhiong)

Naan Y manquestiotiona: _____

Ora gi anai mato gi gima y manrespuepuesta: _____

Ora anai madingo y gima: _____ Numeron y manmafatoigue: _____

Y ha nota siha y man examimina: _____

APPENDIX B

(1) Some Interviewer's Remarks Concerning Their Respondents

About a pregnant Guamanian woman of 41 with eight children from 10 pregnancies -

"Very friendly; would like very much to learn how to prevent pregnancy. She says, "Church, no church, I just have to find a way not to get pregnant anymore. I have enough kids." I advised her to go to the Public Health Clinic."

Concerning a 35-year-old Guamanian woman who had 14 pregnancies and now has 12 children -

"She is such a pity; she is separated from her hubby and lives in a one-room shack with 12 kids, so pitiful. She is so skinny and her kids are very small. She cried the whole time and I felt like crying also."

Describing a 35-year-old Filipino woman with 4 children -

"She is well to do, but asked me to help her because she doesn't want anymore kids. She has a hard time on every delivery and the doctor says her uterus is very thin. I told her to go to the Public Health Clinic but she doesn't speak English very well. She says she is very happy to talk to me about preventing pregnancy. So I told her not to worry about a thing, just go see the doctor and there's a way that she'll be helped."

About a young girl of 17 who had one illegitimate child -

"Real nice but a little shy. She told me that she really wanted to start on pills but was scared her mother would find out about it; she wants to know if in case she is pregnant and she takes the pills, will it affect the baby?"

Describing a woman of 44 with 12 children -

"She is very religious and old-fashion and forbid me to interview her girls, but I already interviewed one of them in my car; she almost had me praying! She said, "When the time comes for her to stop having any more babies, God will stop it."

(2) Terminal Reports Written by Two Interviewers

"A Brief but Interesting Job"

by

Mrs. Maria D. Lizama

Two months have gone by quite fast. I am still so eager to continue interviewing and meeting all kinds of wonderful people. Wonderful is the only word I can think of to describe the women I have interviewed--they were friendly, cooperative and hospitable. I cannot count the number of offers for coffee, doughnuts and other signs of Guamanian hospitality.

I blazed different trails to meet my interviewees. My Ford went through mud, rocks, "tangantangan," toads and wooden bridges! Swordgrass scraped my car, but I did not mind.

The houses were as different as the people I met. Some were neat, clean, attractive and orderly. Others were beaten, unpainted, a bit dirty and messy. Some had nice gardens, others had nothing but a lawn of grass six feet high.

I have played the role of a hunter. I have had to track down people. Some I found at neighbors' houses, enjoying their daily ritual of coffee and gossip. Some I had to look for at their places of work. They were a bit afraid their bosses would catch them taking time off for "office gossip." Many had moved to different villages, this group was quite hard to locate.

Many women seemed a bit "surprised" at the sight of an interviewer. Interviewers are not too common on Guam. Older women, especially grandmothers, tried to get into the act and tried to persuade their daughters not to "give themselves away." Oh, grandfathers got into the act, too.

One tried to chase me away with words like, "you will not ruin my family's name!"

The children I met during these interviews were happy eager children. The sight of my big Ford coming up the road made them run and shout, "oh, boy! oh, boy!"

My teachers and my fellow interviewers have been very nice and understanding. I will never forget the summer of 1969. It has been a real challenge in my life. I have enjoyed it tremendously.

"My Experience as an Interviewer"

by

Esther W. Almeida

As an interviewer I tried to be very sincere in talking and in trying to be very careful of what I have to say as I approach a respondent.

I always had a kind of mixed feeling of fear and valiance, but I didn't show it, for I had to explain my mission clearly. People as I had come to know would always be suspicious of a person, any person that knocked unexpectedly at their door. Anyway, I would always be ready with my most charming smile, and then showed my Introduction Letter. Then there were a lot of questions which I had to be ready to answer as best I could. She would offer me a chair and my questionnaire and pencil would be ready as soon as she finished reading what my Introduction Letter says. She would read it, then sometimes she would hesitate, but not for long for I had to try and interview her if she already had me in her house. Ninety-nine per cent of the time I interviewed them if I found them, with no problem. Of course there were times when it was impossible for me to

locate the homes without addresses even after I asked the commissioners and other people and also tried to telephone them.

Only once did I encounter a respondent with the husband saying in a very nice way the questionnaire was too personal and he didn't see why anybody would want to answer it. Another one was the father of a respondent who got the wrong idea of what I was asking his daughter, but of course I explained it again to him.

As an interviewer my work was very challenging. Sometimes the places where I went were in very deserted places but I was only scared of the dogs.

The days were very hot, but many thanks to the village commissioners who helped to make our work easier and to all the nice people that I have asked for directions. I hope that the result of this Survey is successful and I wish the best for our Island.