
COMPARATIVE STUDIES 14

DEMOGRAPHIC CHARACTERISTICS OF HOUSEHOLDS



**Demographic
and Health
Surveys**



The Demographic and Health Surveys (DHS) is a 13-year project to assist government and private agencies in developing countries to conduct national sample surveys on population and maternal and child health. Funded primarily by the United States Agency for International Development (USAID), DHS is administered by Macro International Inc. in Columbia, Maryland.

The main objectives of the DHS program are (1) to promote widespread dissemination and utilization of DHS data among policymakers, (2) to expand the international population and health database, (3) to advance survey methodology, and (4) to develop in participating countries the skills and resources necessary to conduct high-quality demographic and health surveys.

For information about the Demographic and Health Surveys program, write to DHS, Macro International Inc., 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, U.S.A. (Telephone 301-572-0200; Telefax 301-572-0999).

**Demographic and Health Surveys
Comparative Studies No. 14**

**Demographic
Characteristics of
Households**

MOHAMED AYAD
ANDREA L. PIANI
BERNARD BARRÈRE
KOFFI EKOUEVI
JAMES OTTO

Macro International Inc.
Calverton, Maryland USA

June 1994

Cover photos: Macro International/K. Reinis
World Health Organization
Macro International/M. Wulfe
Macro International/J. Cushing

Recommended citation:

Ayad, Mohamed, Andrea L. Piani, Bernard Barrère, Koffi Ekouevi, and James Otto. 1994. *Demographic Characteristics of Households*. DHS Comparative Studies No. 14. Calverton, Maryland: Macro International Inc.

Contents

Preface	v
Acknowledgments	vi
1 Introduction	1
2 Definitions and Concepts	2
3 Data and Comparability	3
4 Age Reporting and Age Heaping	7
5 Age and Sex Structure	10
6 Size of Households	20
7 Headship of Households	25
8 Conclusions	32
References	33

Appendix A

Distribution of the Household Population by Age and Sex	34
Household Size by Urban-Rural Residence	36

Appendix B

Summary of DHS-I and DHS-II Surveys, 1985-1993	38
---	----

Tables

3.1 Information collected in the DHS household questionnaire	5
3.2 Characteristics of household samples	6
4.1 Age digit preference	8
5.1 Age and sex structure of households	10
6.1 Size of household	21
6.2 Summary measures of household size	24

6.3	Trends in mean household size	24
7.1	Sex of head of household	25
7.2	Sex of head of household by urban-rural residence	27
7.3	Household headship by age and sex	28
7.4	Summary measures of household size by sex of household	30
7.5	Female-headed households by marital status of household head	31
7.6	Trends in proportion of female-headed households	31

Appendix A

A.1	Distribution of the household population by age and sex	34
A.2	Household size by urban-rural residence	36

Figures

5.1	Percentage of the household population aged 0-4 and 5-14 years	12
5.2	Age-sex structure of the household population	13
5.3	Comparison of population pyramids for (a) Uganda and Thailand, and (b) Uganda and Peru	18
6.1	Mean number of persons per household	22
6.2	Distribution of households by size	22
7.1	Percentage of female-headed households	26
7.2	Age-specific headship rates for males and females	29

Preface

One of the most significant contributions of the DHS program is the creation of an internationally comparable body of data on the demographic and health characteristics of populations in developing countries. The *DHS Comparative Studies* series examines these data across countries in a comparative framework, focusing on specific topics.

The objectives of the *DHS Comparative Studies* are: to describe similarities and differences between countries and regions, to highlight subgroups with specific needs, to provide information for policy formulation at the international level, and to examine individual country results in an international context. The comparative analysis of DHS data is carried out primarily by staff at the DHS headquarters in Calverton, Maryland. The topics covered in the series are selected by DHS staff in conjunction with the DHS Scientific Advisory Committee and USAID.

The reports in this series are based on a variable number of data sets that generally represent those countries for which data sets were available at the time the report was prepared. Each report provides detailed tables and graphs for countries in four regions: sub-Saharan Africa, Near East/North Africa, Asia, and Latin America/Caribbean. Survey-related issues such as questionnaire comparability, survey procedures, data quality, and methodological approaches are addressed in each report, as necessary. Where appropriate, data from previous survey programs, primarily the World Fertility Survey and the Contraceptive Prevalence Surveys, are used to evaluate trends over time.

As more surveys are conducted under the DHS program and additional data sets become available, some of the reports published early in the series will be updated.

It is hoped that the availability of comparable information for a large number of developing countries will have long-term usefulness for analysts and policymakers in the fields of international population and health.

Martin Vaessen
Project Director

Acknowledgments

The authors wish to express their thanks to David Cantor for data processing assistance. Ann Blanc, Anne Cross, Laura Nyblade and Anastasia Gage offered useful suggestions for revising the report.

1 Introduction

In the last fifteen years, there has been a growing interest in the analysis of demographic and socioeconomic data collected from households. The information is increasingly being used by policymakers and planners for programmatic purposes, since changes at the household level have repercussions at the country level. For instance, changes in household composition and structure have an impact on the distribution of goods and services, the planning of community institutions, and requirements for schools, housing, and the health infrastructure (Ekouevi et al., 1991).

Until the early 1980s, however, most of the data on the demographic characteristics of households and household populations in developing countries came from censuses and a few demographic surveys, with little detail regarding household structure and complexity (Burch, 1980). The World Fertility Survey (WFS) carried out between 1974 and 1984 in more than 40 developing countries, was the first source of information to be used for the analysis of household characteristics in developing countries (De Vos, 1987; Kabir, 1980; and Zoughlami and Allsopp, 1985).

The Demographic and Health Surveys (DHS) program, which began in 1984 as a follow-on activity to the WFS program, is the most recent source of information on household character-

istics in many countries throughout the developing world. Since DHS used similar questionnaires and implementation procedures across countries, it is possible to make an assessment of basic household characteristics in 25 of the 28¹ national surveys undertaken during the first five-year phase of the DHS program.

This comparative report on the demographic characteristics of households is divided into eight sections (this being section 1); in the next two sections, definitions of the household and issues related to the data used and data comparability are discussed; the fourth section examines the quality of age data; sections 5-7 present and compare data on household demographic characteristics such as age and sex structure, size of households and headship of households. The last section summarizes the results.

¹Three countries were excluded from this analysis: Brazil, El Salvador and Nigeria. The Brazil household data was processed only for households that included a woman with a completed interview. No household data are available for El Salvador. In Nigeria, only Ondo State was surveyed; as a result, the data could not be generalized to the whole country.

2 Definitions and Concepts

In DHS surveys, a household is defined as a person or a group of people who usually live and eat together (Institute for Resource Development, 1987a). During training of interviewers, emphasis is placed on making the distinction between a *family*, where members are related either by blood or by marriage, and a *household*, which involves the sharing of a housing unit, facilities, and food (ibid.).

For practical reasons, censuses and surveys deal with the household unit rather than the family unit, since the meaning of the family differs across cultures. In sub-Saharan Africa, for example, the family has a broad meaning and it is difficult to define its limits. The definition of the household also poses problems and it is not easy to apply in practice in many regions of the developing world, especially in sub-Saharan Africa, where the model of a nuclear household composed of a husband, a wife and children is not the norm. A household can be composed of many relatives of different generations and non-relatives as well. In addition to close family members, foster children and other members of the extended family and servants can be part of the same household, as long as they eat together.

Another problem in identifying a household and its members is related to the practice of polygyny, which occurs mainly in sub-Saharan Africa. Polygyny is accompanied by complex residential

arrangements, especially in urban areas. Often, the husband alternates visits with his wives who live in separate residences. In such cases, the classification of the husband as a member of a particular household can be problematic. A similar problem exists in the Caribbean countries where visiting unions exist. To avoid double counts, interviewers in DHS surveys were instructed to consider the husband as a member of the household where he slept most of the time.

It is important to note that a household may not necessarily be an independent economic unit. For example, an elderly person or a student living alone but who is dependent on resources from another household, is considered as a separate household, even though that person is economically an extension of another household. At the same time, sharing a common income is not part of the definition of the household, and this may have implications for the designation of the head of the household. In DHS surveys, during the listing of household members, an adult respondent is asked to identify the head of the household. With this procedure, socio-cultural considerations may affect who is viewed as the head of the household. In some societies that have strong traditional values, even if a female member is the real provider for the household, she may not be designated as the head of the household, if there is an adult or elderly male who is a member of that same household.

3 Data and Comparability

The data used in this report come from household surveys conducted during the first phase of the DHS program (DHS-I) in 11 countries in sub-Saharan Africa, 3 in the Near East and North Africa, 3 in Asia, and 8 in Latin America and the Caribbean. The fieldwork for this phase took place between 1986 and 1990. In general, DHS household surveys are based on nationally representative samples.² Following the selection of the primary sampling units (generally, census enumeration areas, or segments of such areas), a listing of households is carried out. Households are then systematically selected from this listing (Institute for Resource Development, 1987b). The DHS household survey is primarily aimed at identifying women eligible for the individual interview. As such, the household interview involves asking an adult person to provide a complete list of all usual members of the household and all visitors³ starting with the head of the household. A simple listing of these persons is compiled, followed by information on their age, sex and residential status. In some countries, questions on other sociodemographic characteristics, such as marital status, relationship to the head of household, fostering of children, economic activity and education were asked (see Table 3.1).⁴ Information on housing characteristics, such as source of water, type of toilet facilities, composition of floor material, and possession of durable consumer goods was collected for most of the countries in the individual questionnaire. However, in Bolivia, Colombia, Ecuador and Guatemala this information was collected in the household questionnaire.

During the first phase of the DHS program, the focus was on the individual questionnaire for women. As a consequence, standard recode files were only produced for data from the individual questionnaire. Files containing the household data are available as intermediary or raw data files. During the second phase of the DHS program (DHS-II), suggestions were made and steps were taken to improve data collection procedures and to prepare standard recode files for the household. Moreover, all surveys carried out under DHS-II have systematically collected at the household level, in addition to the basic demographic characteristics, data on

relationship to the head of household, education of household members, survivorship of the biological parents of children,⁵ household possessions and dwelling characteristics. A new chapter presenting data on household characteristics is also included as part of the DHS final reports. It should be mentioned here that part of this expansion of the household schedule can be attributed to the growing interest in the household data for policy purposes.

Table 3.2 presents a summary of the characteristics of household samples in DHS household surveys. As mentioned earlier, the DHS household survey is based in most cases on a national sample. In a few countries however, it was decided to exclude certain parts of the national territory due to practical constraints. In Sudan, for example, where the coverage rate is one of the lowest (80 percent of the population), the survey was carried out only in the North; the South was excluded due to the civil war in that area of the country. In Uganda, where the coverage rate is also low (80 percent), one-fourth of the districts were excluded due to civil disturbances. In Sri Lanka, with a coverage rate of 91 percent, the Northern and Eastern provinces were excluded for similar reasons. This table also shows the number of households selected, identified and successfully interviewed. In general, the response rates for household interviews were relatively high, ranging from 96 to 100 percent. Only one country, Liberia, had a household response rate under 90 percent. The main reason for nonresponse in the household interview in most countries was the absence of an adult at home during the interviewer's visits. Interviewers were instructed to make three attempts to interview households. In a few Latin American countries such as Bolivia, Colombia and Guatemala, refusal to be interviewed was another significant reason for nonresponse.

With respect to a key variable—urban and rural residence—the DHS surveys provide a representative estimation of household distribution by residence. On average the percentage of households in urban areas is highest in Latin America, followed by the Near East/North Africa region, sub-Saharan Africa, and Asia. It should be noted that DHS uses a definition of residence that is specific to each country, and is, therefore, not strictly comparable across countries. For example, in Burundi, only 4 percent of households are identified as urban because only two cities (Bujumbura and Gitega) are considered urban areas, while in Togo 32 percent of households are identified as urban because all local capitals at the provincial level (21 towns) are considered urban.

²By design, DHS samples are either self-weighting or weighted. In the case of weighted samples, weights are applied in computing percentages, means and rates.

³The standard DHS survey uses a de facto sample although a few are de jure.

⁴For an exhaustive comparison of items collected in the DHS household questionnaires see Landers and McNiff (1994).

⁵For each child under age 15 listed in the DHS-II household questionnaire, respondents were asked if the child's mother and father were still alive and, if so, if they lived in the household.

As indicated earlier, the listing of household members includes visitors in addition to the usual residents of the household. By using questions asked concerning residential status it is possible to find out whether the listed individual usually lives in the household, and whether he/she slept the night preceding the interview in the household. The results show that the percentage of visitors varies from 1 percent in Mali to 5 percent in Zimbabwe (data not shown). In most countries, the percentage of visitors is less than 3 percent of the total number of persons listed in the household. While the percentage of visitors appears relatively low, this is not the case for the percentage of absent members of the household (i.e., usual members who did not sleep in the household the previous night), which ranges from 3 percent in Colombia to 8 percent in Liberia. In about half the countries the percentage of absentees is higher than 5 percent. Overall, the percentages are higher in sub-Saharan countries than in other regions.

One question for analysts is how to treat visitors and absentees. In the case of a de facto sample, all persons who slept the night before the interview in the household are included. The inclusion of visitors means that some household members will not be attributed to their usual household of residence, and the exclusion of absentees may affect the average household size and head-

ship rates. Another alternative offered by the data is to exclude visitors and base calculations on the usual residents of households independently of their de facto status. This type of sample is a de jure sample, that is, a sample of usual residents who are present in addition to those who are absent. Theoretically, this gives the appearance of an exhaustive count of household members and stability of households. However, this is true only if absent members are temporarily absent. When the duration of absence is long, this approach is also questionable. There is no question asked concerning the duration of absence of absent members. In the following analyses, it was decided to base calculations on the de facto population, which has the advantage of portraying the current status of the composition and structure of households. However, in order to capture the usual head of household, the de jure population was used in all analyses related to this topic.⁶

⁶The household questionnaire used in Peru did not include a question on usual residence, so the head of household analyses are based on the de facto population. Because only the names of usual residents were listed in Indonesia's household questionnaire, the de jure population is the base for all analyses in this country.

Table 3.1 Information collected in the DHS household questionnaire

Information collected in the DHS household questionnaire, Demographic and Health Surveys, 1986-1990.

Country	Usual residence	Slept last night/visitor	Relationship to head of household	Sex	Age	Marital status	Education ¹	Work activity ²	Fostering (children 0-14 years)
SUB-SAHARAN AFRICA									
Botswana	X	X	X	X	X				X
Burundi	X	X	X	X	X	X			X
Ghana	X	X		X	X				X
Kenya	X	X	X	X	X				X
Liberia	X	X		X	X			X	X
Mali	X	X	X	X	X				
Senegal	X	X	X	X	X	X			
Sudan (North)	X	X		X	X	X	X		
Togo	X	X	X	X	X				
Uganda	X	X		X	X				X
Zimbabwe	X	X	X	X	X				
NEAR EAST/NORTH AFRICA									
Egypt	X	X	X	X	X	X	X	X	
Morocco	X	X	X	X	X	X	X		
Tunisia	X	X	X	X	X	X	X		
ASIA									
Indonesia			X	X	X		X		
Sri Lanka	X	X		X	X	X			
Thailand	X	X	X	X	X	X	X		
LATIN AMERICA/CARIBBEAN									
Bolivia	X	X		X	X				
Colombia	X	X	X	X	X				
Dominican Republic	X	X		X	X				
Ecuador	X	X	X	X	X				
Guatemala	X	X	X	X	X				
Mexico	X		X	X	X	X	X	X	
Peru			X	X	X	X			
Trinidad & Tobago	X	X		X	X				

¹Information on education was collected for household members in selected age groups in each of the seven countries and were limited to women only in two countries—Morocco and Tunisia. Although questions were not identical across countries, a question was usually included that asked for the highest level of education reached or the highest grade completed.

²Work activity information was collected for persons aged 15 and older in Liberia; persons aged 12 and older in Egypt; and persons aged 8 and older in Mexico. The content of the work activity questions differed among the three countries.

Table 3.2 Characteristics of household samples

Characteristics of household samples, Demographic and Health Surveys, 1986-1990

Country	Year of survey	Percent coverage	Household sample selected (A)	Households identified (B) ^a	Households interviewed (C)	Household response rate (%) (D)=(C)/(B)	Percent urban	Type of sample
<u>SUB-SAHARAN AFRICA</u>								
Botswana	1988	100	5776	4620	4473	96.8	28.0	W
Burundi	1987	100	3955	3885	3868	99.6	4.4	W
Ghana	1988	100	4966	4504	4406	97.8	34.7	SW
Kenya	1988/89	95	9836	8461	8173	96.6	21.9	W
Liberia	1986	98	6007	5685	5023	88.4	44.0	W
Mali	1987	90	3462	3054	3048	99.8	24.3	W
Senegal	1986	100	2136 ^b	2126	3736 ^c	97.1	41.3	SW
Sudan (North)	1989/90	80	7280	6945	6891	99.2	35.6	SW
Togo	1988	100	3998	3709	3432	92.5	31.6	SW
Uganda	1988/89	80	5587	5163	5101	98.8	9.7	W
Zimbabwe	1988/89	99	4789	4337	4107	94.7	34.5	SW
<u>NEAR EAST/ NORTH AFRICA</u>								
Egypt	1988/89	100	10528	9867	9805	99.4	53.9	W
Morocco	1987	100	7472	7159	6960	97.2	46.7	SW
Tunisia	1988	100	6264	5777	5645	97.7	58.9	SW
<u>ASIA</u>								
Indonesia	1987	93	14861	14655	14142	96.5	35.0	W
Sri Lanka	1987	91	8119	7831	7669	97.9	16.3	W
Thailand	1987	100	9723	9179	9045	98.5	18.4	W
<u>LATIN AMERICA/ CARIBBEAN</u>								
Bolivia	1989	98	10066	9264	8439	91.2	54.7	W
Colombia	1986	95	4873	4331	4273	98.7	67.7	W
Dominican Republic	1986	100	7914	7353	7152	97.3	58.5	W
Ecuador	1987	97	5298	4649	4578	98.5	53.4	SW
Guatemala	1987	98	6870	5683	5459	96.1	35.2	SW
Mexico	1987	98	8763	8096	7786	96.2	71.1	W
Peru	1986	90	5032	4700	4497	95.7	61.4	SW
Trinidad & Tobago	1987	100	4799	4371	4122	94.3	47.5	SW

W = weighted; SW = self-weighted

^aThe number of households identified is arrived at by adding the following result codes: completed interviews, household present (no eligible respondent), postponed, refused and dwelling not found. This definition excludes household absent, dwelling vacant, dwelling destroyed and other.

^bCompounds selected. A compound is a group of housing units owned by an individual or a group of related individuals. The number of people living in a compound may reach as high as 100 persons. In Senegal the average compound size is 25 persons.

^cCompounds converted to households

4 Age Reporting and Age Heaping

In DHS surveys, as well as in other surveys and censuses in the developing world, age is sometimes misreported and in many cases unknown. A substantial number of people, especially older individuals and those who are uneducated, do not know their age or date of birth. Since this report focuses to a large extent on the comparison of the age-sex structure, a brief description of the procedures used in DHS-I surveys to collect age data is covered in this section. In order to look at the quality of age data the prevalence of age heaping is examined as well. Heaping at age 50 among women in DHS surveys is of primary concern, since women reported as being aged 50 by household respondents who are actually in their late 40s would be excluded from the individual interview, when in fact they should be interviewed. It is also important for the calculation of all-women fertility rates in ever-married samples, where the denominators for ever-married fertility rates are inflated to include all women. The expansion factors are calculated based on the proportion of women ever married at each single year of age. Heaping on any particular age could affect the accuracy of the expansion factors.

In DHS-I surveys the question "How old is he/she?" was asked for each household member listed by the household respondent. If the exact age of a household member was unknown, interviewers were asked to probe the respondent. Several methods were suggested to interviewers in order to determine the age of listed individuals (Institute for Resource Development, 1987a). Current age can be calculated directly from date of birth, if known, or respondents may have birth certificates or baptism certificates available for household members that include date of birth. Additionally, age can be estimated based on the age of another household member, or the date of a major event that occurred in the country.

The prevalence of "age heaping," or the tendency to overreport ages ending in 0 or 5 is measured here using the Myers blended index and the Whipple index (see Table 4.1). If heaping were nonexistent, the Myers summary index would equal zero. Small deviations from 0 might reflect actual fluctuations in births; larger deviations from 0 are of greater concern. The Myers blended method also allows for a more detailed estimation of age heaping. Columns 1-10 in Table 4.1 show the distribution of reported ages by the last digit of age. If heaping does not occur, each last digit of age would have close to 10 percent of reported ages. The Whipple index ranges from 1, representing virtually no age heaping to 5, representing reports of ages ending only in 0 or 5.

Overall, most DHS-I countries do not show a strong tendency toward preference for the digits 0 or 5; however, there is some evidence of age heaping, particularly in Sudan. For this country, the value of the Whipple index is 2.7 and the Myers summary index is 26.5. Most of the countries with Whipple's indices greater than 1.5 and/or Myers' summary index greater than 10 are located in Africa. But in Africa and in other regions, there is some variation in the degree of age heaping among countries. In Latin America and the Caribbean, for example, the Myers summary index ranges from 3.2 in Trinidad and Tobago to 11.8 in Bolivia. The corresponding Whipple's indices are 1.1 and 1.5, respectively. The difference in age heaping for males and females is small: in most countries the Whipple indices and the Myers summary indices are slightly higher for males than females or there is no difference.

From the Myers blended method, it can be determined what numbers are most likely to be underreported. Respondent's were least likely to report ages ending in 1, 7 and 9. In most countries the inclination is slightly greater to overreport ages ending in 0 rather than 5.

Table 4.1 Age digit preference

Percent distribution of age digit preference by last digit of age, and Myers' blended index and Whipple's index, according to sex, Demographic and Health Surveys, 1986-1990

Country	Last digit of age										Total percent	Myers' index ¹	Whipple's index ²
	0	1	2	3	4	5	6	7	8	9			
SUB-SAHARAN AFRICA													
Botswana	11.8	8.7	10.5	9.3	10.4	10.7	10.2	8.1	11.0	9.3	100.0	4.6	1.2
Male	11.5	8.7	10.3	9.2	9.8	11.6	10.8	8.5	10.8	8.8	100.0	5.0	1.2
Female	12.0	8.7	10.7	9.5	10.8	10.0	9.7	7.8	11.2	9.6	100.0	4.7	1.2
Burundi	13.4	8.2	10.5	8.6	9.0	12.2	8.5	11.3	10.1	8.2	100.0	7.5	1.3
Male	14.0	8.4	9.5	8.0	8.3	13.1	8.7	12.1	10.0	7.9	100.0	9.2	1.4
Female	12.8	8.1	11.4	9.1	9.6	11.4	8.2	10.5	10.2	8.5	100.0	6.5	1.3
Ghana	17.7	6.4	10.5	7.5	8.2	15.7	9.1	6.8	11.1	7.1	100.0	15.0	1.8
Male	17.4	6.1	10.6	7.5	7.4	16.1	9.7	7.2	10.8	7.3	100.0	14.9	1.8
Female	17.9	6.6	10.5	7.5	8.9	15.3	8.6	6.4	11.3	7.0	100.0	15.0	1.7
Kenya	16.8	7.5	9.8	7.9	9.6	13.4	8.7	7.5	10.6	8.2	100.0	10.8	1.7
Male	16.6	7.4	9.6	7.2	8.5	14.9	9.2	8.0	10.9	7.8	100.0	12.4	1.8
Female	17.0	7.7	10.0	8.7	10.6	11.9	8.2	7.1	10.3	8.6	100.0	9.8	1.6
Liberia	15.7	6.8	10.5	7.7	7.7	12.7	10.9	7.5	12.2	8.2	100.0	12.1	1.6
Male	15.2	6.9	10.6	7.6	7.7	13.4	11.0	7.2	12.4	8.0	100.0	12.6	1.6
Female	16.3	6.6	10.4	7.9	7.7	12.1	10.8	7.8	12.0	8.4	100.0	11.6	1.5
Mali	14.1	8.9	9.6	8.5	9.3	10.9	12.2	8.3	10.7	7.6	100.0	7.9	1.3
Male	12.3	9.4	9.6	8.7	9.8	10.6	12.0	8.4	11.0	8.1	100.0	6.0	1.2
Female	15.6	8.4	9.6	8.3	8.8	11.1	12.3	8.1	10.5	7.2	100.0	9.5	1.4
Senegal	11.2	9.1	10.9	9.5	8.6	11.9	11.1	9.0	10.3	8.4	100.0	5.4	1.2
Male	11.0	8.4	10.6	9.5	8.1	12.9	11.0	9.3	10.3	9.0	100.0	5.7	1.2
Female	11.5	9.7	11.3	9.5	9.0	11.0	11.1	8.8	10.3	7.8	100.0	5.2	1.1
Sudan (North)	23.8	4.4	8.8	6.4	5.4	22.7	6.6	7.1	9.5	5.3	100.0	26.5	2.7
Male	25.3	4.3	8.5	6.2	5.3	23.0	6.1	6.8	9.1	5.4	100.0	28.3	2.8
Female	22.3	4.5	9.0	6.6	5.6	22.3	7.1	7.5	9.8	5.3	100.0	24.7	2.6
Togo	14.5	7.5	11.3	9.5	7.9	14.1	8.5	8.7	10.9	7.2	100.0	10.7	1.5
Male	15.4	6.3	11.1	8.3	7.8	14.7	9.0	8.9	11.3	7.2	100.0	12.5	1.6
Female	13.6	8.6	11.4	10.5	7.9	13.6	8.1	8.6	10.5	7.2	100.0	9.6	1.4
Uganda	17.9	6.2	10.1	8.0	8.4	14.5	9.0	7.1	12.2	6.5	100.0	14.7	1.7
Male	19.4	5.1	9.6	7.7	7.6	15.9	8.2	7.9	12.2	6.4	100.0	17.5	1.9
Female	16.6	7.3	10.5	8.3	9.2	13.2	9.7	6.4	12.2	6.6	100.0	12.6	1.6
Zimbabwe	11.7	8.2	10.8	9.2	9.5	11.2	10.6	8.1	11.5	9.2	100.0	5.8	1.1
Male	12.1	8.5	10.5	8.7	8.9	11.2	11.3	8.6	11.4	8.7	100.0	6.6	1.2
Female	11.3	7.8	11.1	9.6	10.1	11.1	9.9	7.6	11.6	9.8	100.0	5.2	1.1

Table 4.1—Continued

Percent distribution of age digit preference by last digit of age, and Myers' blended index and Whipple's index, according to sex, Demographic and Health Surveys, 1986-1990

Country	Last digit of age										Total percent	Myers' index ¹	Whipple's index ²
	0	1	2	3	4	5	6	7	8	9			
ASIA													
Indonesia ³	14.8	8.0	10.3	8.6	8.1	14.6	8.6	10.1	9.1	7.7	100.0	9.8	1.6
Male	15.7	7.7	9.8	8.2	7.8	15.5	8.6	10.1	9.1	7.5	100.0	11.3	1.7
Female	14.0	8.3	10.7	9.0	8.3	13.7	8.6	10.1	9.2	7.9	100.0	8.6	1.4
Sri Lanka	14.9	6.9	11.0	8.4	8.6	14.0	9.3	8.5	10.9	7.6	100.0	10.8	1.4
Male	15.1	6.8	10.8	8.4	8.2	13.9	9.4	8.5	11.3	7.7	100.0	11.1	1.5
Female	14.8	7.0	11.2	8.4	8.9	14.0	9.3	8.4	10.5	7.4	100.0	10.5	1.4
Thailand	13.6	7.8	10.3	9.8	9.1	11.8	9.4	9.5	10.3	8.2	100.0	6.1	1.3
Male	13.1	7.7	10.4	9.2	9.0	12.1	9.6	9.8	10.4	8.5	100.0	6.1	1.3
Female	14.1	7.9	10.1	10.3	9.2	11.6	9.2	9.3	10.3	8.0	100.0	6.4	1.3
LATIN AMERICA/ CARIBBEAN													
Bolivia	16.3	6.2	10.2	8.7	8.5	13.3	9.0	8.0	12.0	7.9	100.0	11.8	1.5
Male	17.0	6.3	10.7	8.6	8.3	13.7	8.8	7.7	11.1	7.8	100.0	12.5	1.6
Female	15.5	6.1	9.8	8.7	8.7	13.0	9.1	8.2	12.8	8.0	100.0	11.3	1.4
Colombia	13.7	7.1	10.8	9.2	9.0	12.0	10.4	8.5	10.9	8.3	100.0	7.9	1.3
Male	14.0	7.0	11.2	9.0	9.1	12.0	10.4	8.5	10.9	7.9	100.0	8.5	1.4
Female	13.4	7.3	10.5	9.4	8.9	12.0	10.4	8.5	11.0	8.7	100.0	7.3	1.3
Dominican Republic	15.9	7.1	10.1	9.1	9.3	11.2	9.9	8.7	10.4	8.3	100.0	7.7	1.4
Male	16.9	6.3	10.7	8.7	9.3	12.0	9.6	8.3	10.7	7.6	100.0	10.2	1.5
Female	14.9	7.8	9.6	9.4	9.3	10.5	10.3	9.1	10.2	8.9	100.0	5.9	1.3
Ecuador	15.0	7.5	10.6	9.4	9.5	11.8	9.8	8.3	10.4	7.7	100.0	7.9	1.4
Male	15.6	6.5	10.9	9.4	9.2	12.4	9.6	8.3	10.7	7.4	100.0	9.6	1.5
Female	14.5	8.4	10.3	9.5	9.8	11.2	10.0	8.3	10.2	7.9	100.0	6.2	1.3
Guatemala	13.8	7.1	10.1	9.2	9.1	12.5	9.5	9.9	10.7	8.1	100.0	7.1	1.4
Male	14.7	6.7	10.4	8.9	9.0	12.4	9.1	9.8	11.0	8.1	100.0	8.6	1.5
Female	12.9	7.5	9.9	9.6	9.2	12.5	10.0	10.0	10.4	8.0	100.0	5.8	1.3
Mexico	13.2	7.3	10.3	9.6	9.4	11.6	10.1	9.7	9.9	9.1	100.0	5.2	1.3
Male	13.2	7.1	10.5	9.7	9.4	11.8	9.9	9.8	9.5	9.1	100.0	5.5	1.3
Female	13.1	7.4	10.2	9.4	9.4	11.3	10.3	9.5	10.2	9.1	100.0	5.2	1.3
Peru	12.9	7.7	11.5	9.3	9.4	11.4	10.2	8.9	10.5	8.2	100.0	6.5	1.2
Male	12.9	6.8	11.7	9.6	9.4	11.6	10.5	8.7	10.6	8.2	100.0	7.3	1.3
Female	12.9	8.5	11.2	9.1	9.4	11.2	9.9	9.2	10.5	8.2	100.0	5.8	1.2
Trinidad & Tobago	11.6	9.0	10.7	9.5	9.7	10.9	9.5	10.0	9.2	10.0	100.0	3.2	1.1
Male	11.6	8.5	10.9	9.7	9.5	10.7	9.3	10.3	8.8	10.7	100.0	4.2	1.1
Female	11.5	9.4	10.5	9.4	9.9	11.1	9.7	9.7	9.5	9.3	100.0	3.1	1.1

¹Covers population aged 10-99

²Covers population aged 23-62

³Based on de jure population

5 Age and Sex Structure

The age-sex structure of a country varies according to the levels of fertility, mortality, and migration. This section examines and compares the age-sex structure for each country included in this report using the de facto population as a base. Summary indi-

cators for the total population and urban-rural population for each country are shown in Table 5.1. The distribution of the household population by age and sex is presented in Appendix A (see Table A.1).

Table 5.1 Age and sex structure of households

Percent distribution of the household population by age, and dependency ratios, percent of children age 0-4 years, and sex ratios, according to urban-rural residence, Demographic and Health Surveys, 1986-1990

Country	Age			Total percent	Depend- ency ratio	Percent children 0-4 years	Sex ratio			Total	De facto population
	<15	15-64	65+				<15	15-64	65+		
SUB-SAHARAN AFRICA											
Botswana	47.7	47.1	5.1	100.0	112.0	15.8	93.2	83.0	73.1	87.2	21331
Urban	38.6	59.7	1.6	100.0	67.2	13.4	87.3	101.2	97.1	95.5	5009
Rural	50.5	43.2	6.2	100.0	130.9	16.5	94.7	76.3	71.5	84.8	16322
Burundi	47.2	48.4	4.4	100.0	106.7	18.8	99.6	95.1	103.2	97.5	20202
Urban	40.4	58.1	1.5	100.0	72.2	16.0	99.5	136.8	145.0	120.3	771
Rural	47.5	48.0	4.5	100.0	108.4	19.0	99.6	93.4	102.7	96.7	19432
Ghana	48.4	47.7	3.8	100.0	109.4	18.6	104.5	88.1	91.3	95.9	21283
Urban	45.2	51.2	3.6	100.0	95.1	16.5	98.9	91.5	64.3	93.6	6618
Rural	49.9	46.2	3.9	100.0	116.6	19.5	106.9	86.5	105.0	96.9	14665
Kenya	52.5	44.2	3.3	100.0	126.3	17.6	97.9	100.1	114.6	99.4	42759
Urban	40.9	58.1	0.9	100.0	72.0	16.2	85.0	140.5	125.0	114.1	6066
Rural	54.4	41.8	3.7	100.0	138.8	17.8	99.7	92.6	114.2	97.2	36693
Liberia	45.5	50.6	3.8	100.0	97.5	18.0	101.6	96.6	135.7	100.1	25173
Urban	45.6	52.4	2.0	100.0	91.0	17.6	94.0	111.7	125.8	103.5	10335
Rural	45.5	49.4	5.1	100.0	102.4	18.3	107.3	86.8	138.5	97.9	14838
Mali	49.9	46.3	3.7	100.0	115.9	19.8	106.0	83.0	113.5	94.9	15208
Urban	49.4	47.7	2.8	100.0	109.5	18.8	99.2	91.8	79.8	95.0	3973
Rural	50.1	45.8	4.0	100.0	118.3	20.1	108.5	80.0	124.0	94.9	11235
Senegal	46.9	48.8	4.3	100.0	104.7	18.3	97.7	85.6	107.7	91.9	29030
Urban	44.2	52.8	2.9	100.0	89.2	16.7	94.8	93.5	107.9	94.5	10922
Rural	48.5	46.4	5.1	100.0	115.4	19.3	99.3	80.5	107.7	90.5	18108
Sudan (North)	42.7	53.4	3.8	100.0	87.1	14.4	101.2	96.6	147.3	100.1	43696
Urban	37.1	59.3	3.5	100.0	68.5	12.3	104.2	109.4	136.5	108.3	17687
Rural	46.5	49.4	4.0	100.0	102.3	15.8	99.7	87.2	154.1	94.9	26009
Togo	49.0	46.5	4.5	100.0	115.0	17.2	103.6	89.3	88.3	96.0	17439
Urban	44.6	52.0	3.4	100.0	92.2	14.7	91.1	94.8	63.6	91.9	5159
Rural	50.8	44.1	5.0	100.0	126.4	18.3	108.7	86.7	96.8	97.8	12280
Uganda	50.7	45.9	3.4	100.0	117.8	20.3	96.4	89.4	142.5	94.4	23168
Urban	44.7	54.0	1.3	100.0	85.2	18.9	83.9	99.4	82.8	91.9	2165
Rural	51.3	45.1	3.7	100.0	121.8	20.4	97.6	88.2	145.5	94.6	21003
Zimbabwe	48.2	48.1	3.6	100.0	107.6	16.0	99.8	95.3	91.8	97.3	21307
Urban	38.9	58.9	2.2	100.0	69.8	14.0	98.6	112.6	107.7	106.8	6093
Rural	51.9	43.9	4.2	100.0	127.9	16.8	100.2	87.2	88.7	93.8	15214

Sex ratio = $P_m/P_f \times 100$, where P_m = the male population and P_f = the female population.
 Dependency ratio = $[(P_{0-14} + P_{65+}) / P_{15-64}] \times 100$, where the numerator, the population aged 0-14 and the population aged 65 and older is considered to be the "dependent" population, and the denominator, the population aged 15-64, is referred to as the "working" population.

Table 5.1—Continued

Country	Age			Total percent	Depend- ency ratio	Percent children 0-4 years	Sex ratio				De facto population
	<15	15-64	65+				<15	15-64	65+	Total	
NEAR EAST/ NORTH AFRICA											
Egypt	41.2	55.0	3.8	100.0	81.8	15.3	106.4	95.5	104.2	100.2	54298
Urban	37.3	59.1	3.6	100.0	69.1	13.1	107.5	99.1	111.3	102.6	26340
Rural	44.9	51.1	4.0	100.0	95.6	17.3	105.5	91.8	98.7	98.0	27958
Morocco	41.3	54.3	4.4	100.0	84.2	13.8	104.3	90.7	114.4	97.1	41477
Urban	36.1	60.2	3.6	100.0	66.0	11.5	104.1	91.3	93.6	95.8	17691
Rural	45.2	49.9	4.9	100.0	100.5	15.5	104.4	90.2	127.7	98.0	23786
Tunisia	39.6	55.6	4.8	100.0	79.8	14.0	103.1	92.8	123.7	98.1	31377
Urban	36.2	59.0	4.8	100.0	69.6	12.6	103.5	94.6	116.6	98.7	17912
Rural	44.0	51.2	4.9	100.0	95.5	15.9	102.6	90.1	133.8	97.3	13465
ASIA											
Indonesia ¹	36.9	59.2	3.9	100.0	68.9	11.3	104.0	94.7	91.0	97.9	67839
Urban	35.2	61.7	3.1	100.0	62.2	11.1	105.9	92.2	91.3	96.8	25421
Rural	37.9	57.7	4.4	100.0	73.3	11.4	102.9	96.3	91.0	98.5	42417
Sri Lanka	33.8	60.6	5.6	100.0	65.0	10.2	105.0	94.9	100.2	98.5	38703
Urban	29.2	64.8	5.9	100.0	54.1	8.2	109.5	98.3	83.2	100.5	6630
Rural	34.7	59.7	5.6	100.0	67.4	10.7	104.3	94.1	104.4	98.1	32073
Thailand	32.3	62.7	4.9	100.0	59.5	9.0	103.5	89.1	74.6	92.7	40946
Urban	24.5	71.2	4.2	100.0	40.4	8.0	98.4	82.3	73.4	85.6	7222
Rural	34.0	60.8	5.1	100.0	64.3	9.2	104.3	90.9	74.8	94.3	33724
LATIN AMERICA/ CARIBBEAN											
Bolivia	43.2	52.2	4.6	100.0	91.4	14.5	101.4	94.9	100.4	97.9	37404
Urban	40.7	55.5	3.8	100.0	80.2	12.9	100.3	93.1	97.1	96.1	21156
Rural	46.4	48.0	5.6	100.0	108.2	16.6	102.6	97.6	103.4	100.2	16248
Colombia	37.4	58.7	3.9	100.0	70.5	11.4	107.2	91.7	104.8	97.8	21623
Urban	35.0	61.3	3.6	100.0	63.0	10.7	106.3	84.0	86.3	91.4	14245
Rural	42.0	53.5	4.5	100.0	87.0	12.8	108.7	111.4	142.6	111.5	7378
Dominican Republic	39.6	56.4	4.0	100.0	77.2	13.3	103.0	95.9	103.4	98.9	34675
Urban	36.6	59.8	3.7	100.0	67.3	12.7	96.2	86.9	87.4	90.2	20146
Rural	43.8	51.8	4.4	100.0	92.9	14.0	111.6	112.1	125.6	112.4	14529
Ecuador	41.2	54.2	4.6	100.0	84.5	13.8	104.5	99.3	97.9	101.3	22191
Urban	37.6	58.5	3.9	100.0	71.0	12.8	108.5	93.4	83.8	98.4	11586
Rural	45.1	49.5	5.4	100.0	101.9	14.8	100.9	107.5	110.7	104.6	10605
Guatemala	46.2	50.2	3.6	100.0	99.2	16.4	102.7	96.4	110.1	99.7	28288
Urban	40.6	54.8	4.6	100.0	82.3	13.9	102.1	89.2	95.0	94.5	9373
Rural	49.0	47.9	3.1	100.0	108.8	17.6	102.9	100.8	122.7	102.5	18915
Mexico	41.0	54.9	4.0	100.0	82.0	13.5	100.0	95.3	92.1	97.0	39755
Urban	37.5	58.3	4.1	100.0	71.3	12.2	100.4	92.4	87.8	95.1	27214
Rural	48.8	47.4	3.7	100.0	110.6	16.1	99.3	103.4	103.3	101.4	12540
Peru	41.2	54.4	4.3	100.0	83.7	13.2	102.8	99.9	86.1	100.4	23067
Urban	37.8	58.4	3.7	100.0	71.1	11.5	103.8	98.1	79.9	99.5	14164
Rural	46.6	48.1	5.3	100.0	108.0	16.0	101.5	103.6	93.4	102.0	8903
Trinidad & Tobago	33.5	60.1	6.4	100.0	66.3	11.9	102.8	105.0	83.5	102.7	17498
Urban	31.7	60.6	7.5	100.0	64.7	11.5	104.2	100.5	82.2	100.1	7754
Rural	34.9	59.6	5.4	100.0	67.6	12.2	101.9	108.7	85.0	104.9	9744

¹Based on de jure population

Approximately half of all household members in sub-Saharan Africa are under 15 years of age; the figure is around 40 percent in the Near East and North Africa, and Latin America and the Caribbean, and about 34 percent in Asia (see Figure 5.1 and Table 5.1). At the national level, the highest percentages of children are observed in Kenya (53 percent), Mali (50 percent), and Uganda (51 percent), and the lowest in Sri Lanka (34 percent), Thailand (32 percent), and Trinidad and Tobago (34 percent). In the majority of countries studied, approximately one-third of children aged 0-14 are in the 0-4 age group. High fertility countries in sub-Saharan Africa have the largest percentage of children under 5 years of age.

Differences in the proportion of persons in the three large age groups (less than 15, 15-64, and 65 and older) are found in urban and rural areas. In general, more persons aged 0-14 and 65 and older live in rural households, while more persons aged 15-64 reside in urban households, probably due to rural-urban migration.

In four countries, Guatemala, Mexico, Sri Lanka and Trinidad and Tobago, there are more persons aged 65 and older in urban households.

The age-sex structure of each country is graphically presented as a population pyramid in Figure 5.2. Populations at different stages of the fertility transition show distinct types of pyramids. Countries in sub-Saharan Africa that have high rates of fertility have the broadest population bases (the largest proportion of the population is in the 0-4 age group); a moderate percentage of people are found in the middle ages; and a small proportion of people in the oldest age groups. Uganda and Mali have the broadest pyramidal bases. North African countries are further along in the fertility transition; they have smaller bases, with a greater proportion of people in the middle age groups. Asian countries, with relatively narrower bases, have the lowest fertility levels. The population in Asian countries is more evenly distributed among age groups, with a comparatively larger proportion of individuals in the older age groups.

Figure 5.1 Percentage of the household population aged 0-4 and 5-14 years, Demographic and Health Surveys, 1986-1990

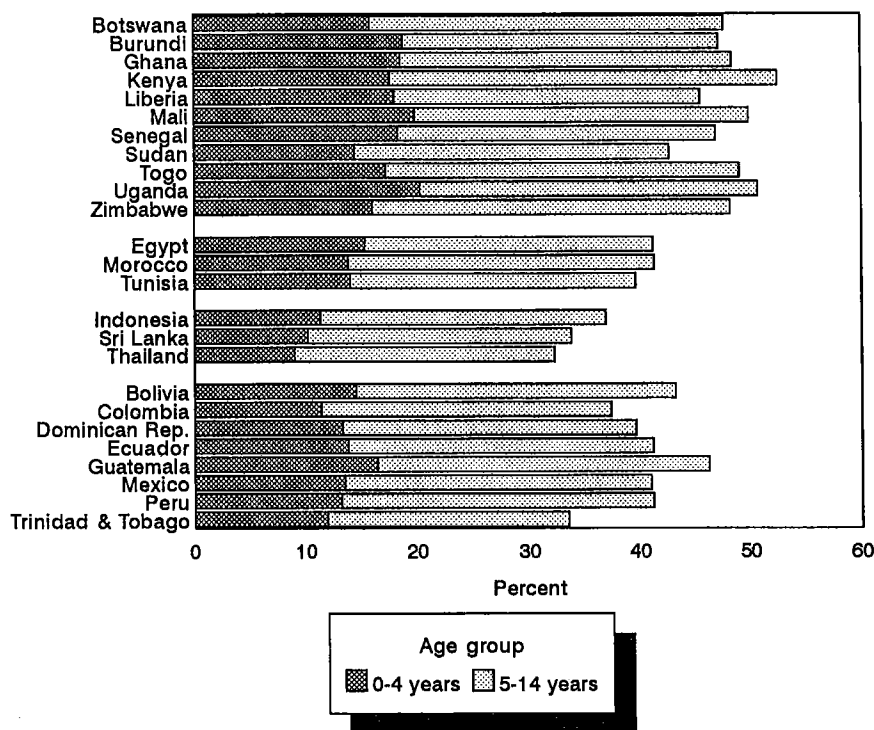


Figure 5.2 Age-sex structure of the household population, Demographic and Health Surveys, 1986-1990

SUB-SAHARAN AFRICA

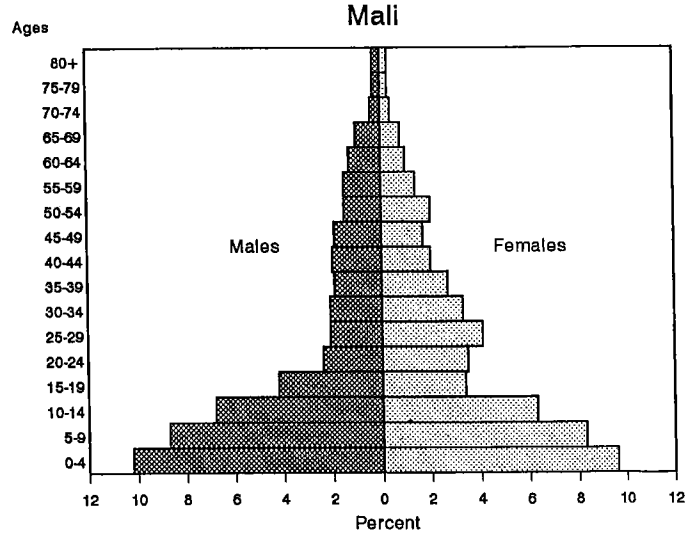
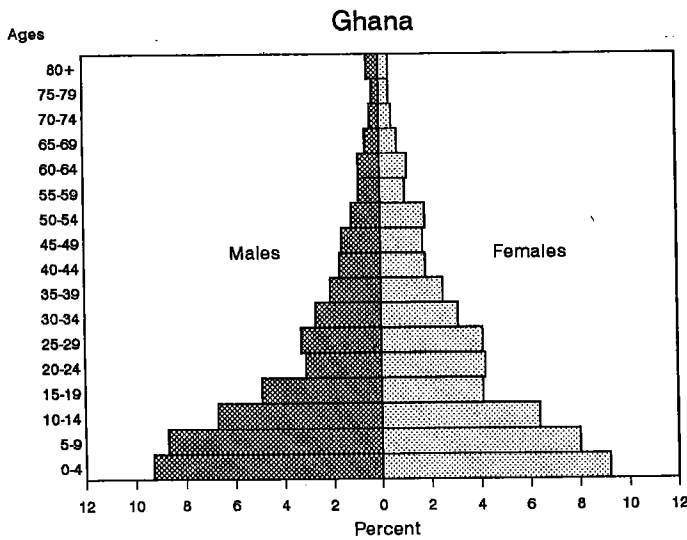
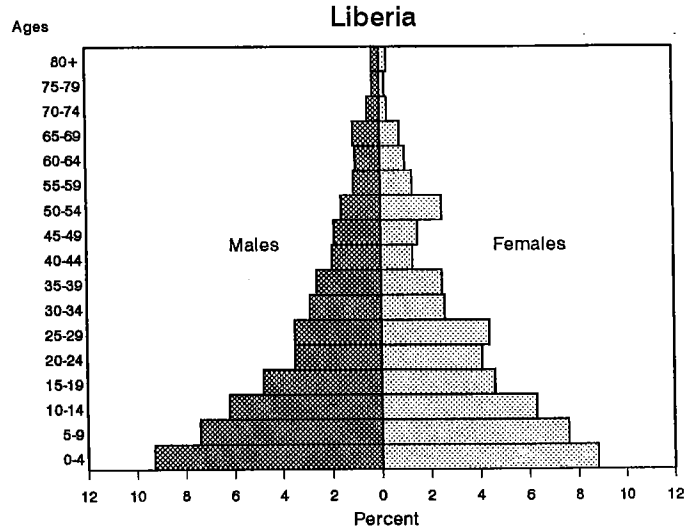
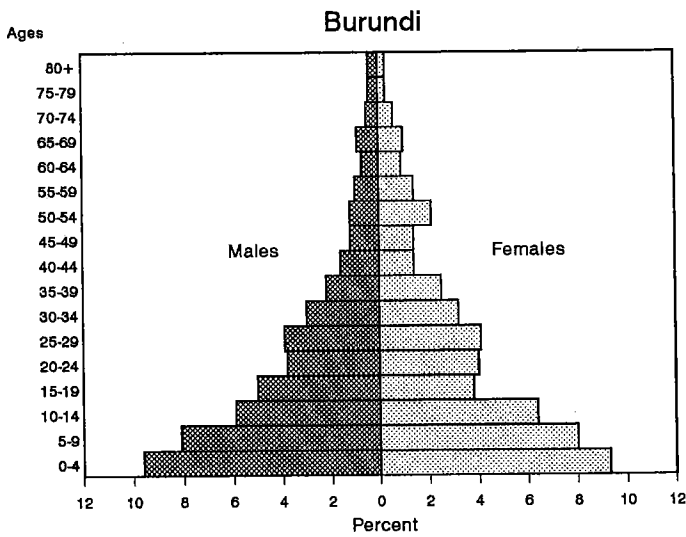
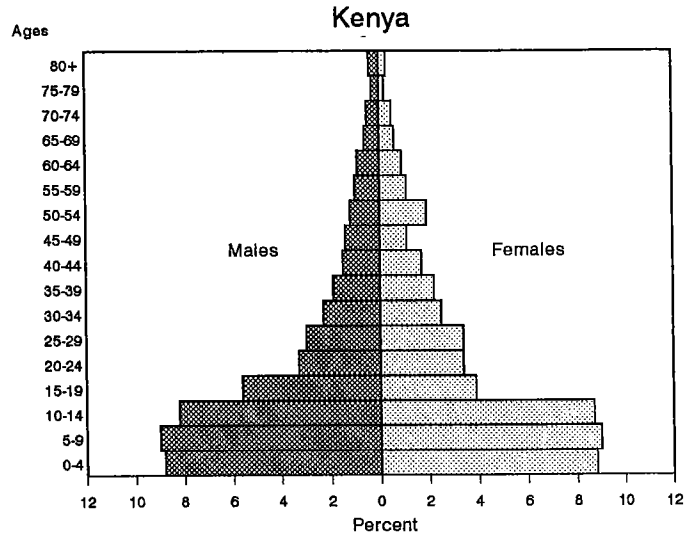
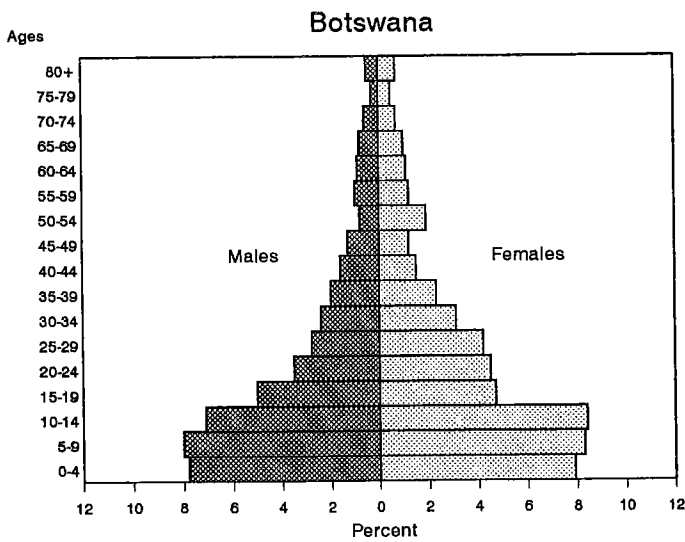


Figure 5.2—Continued

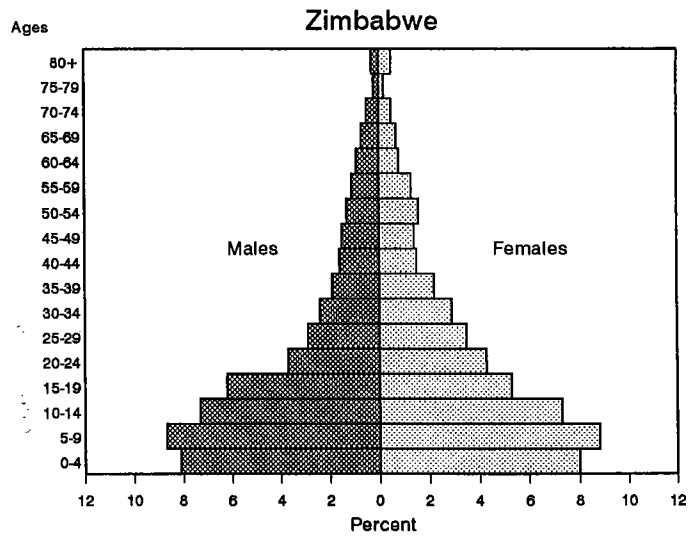
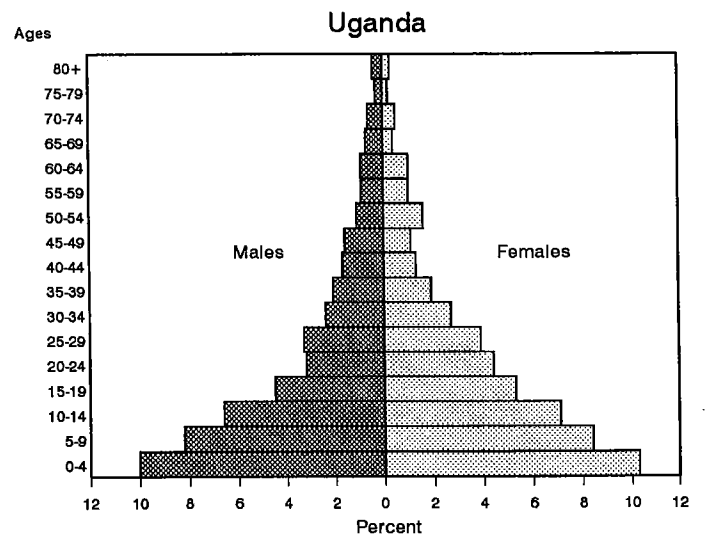
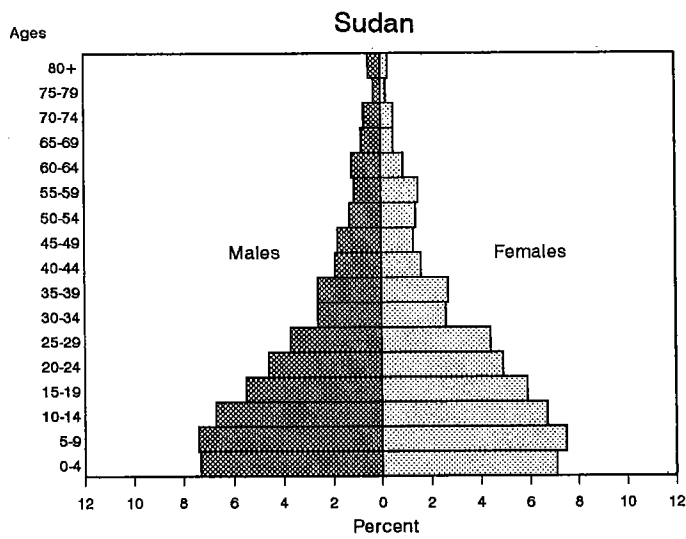
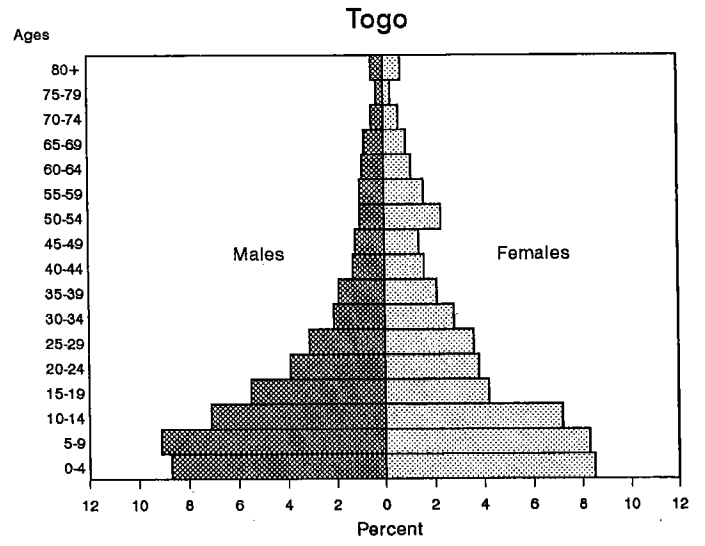
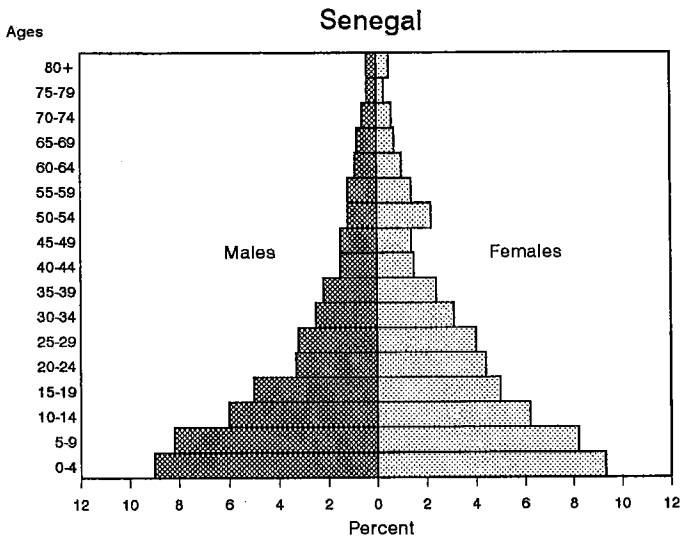
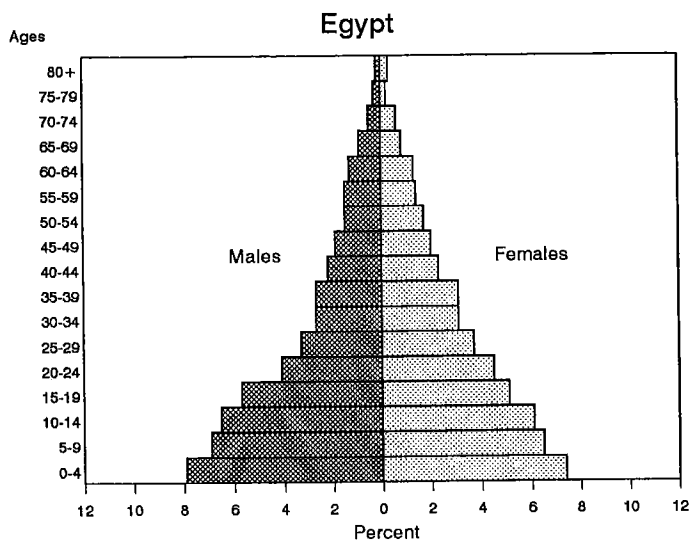


Figure 5.2—Continued

NEAR EAST/NORTH AFRICA



ASIA

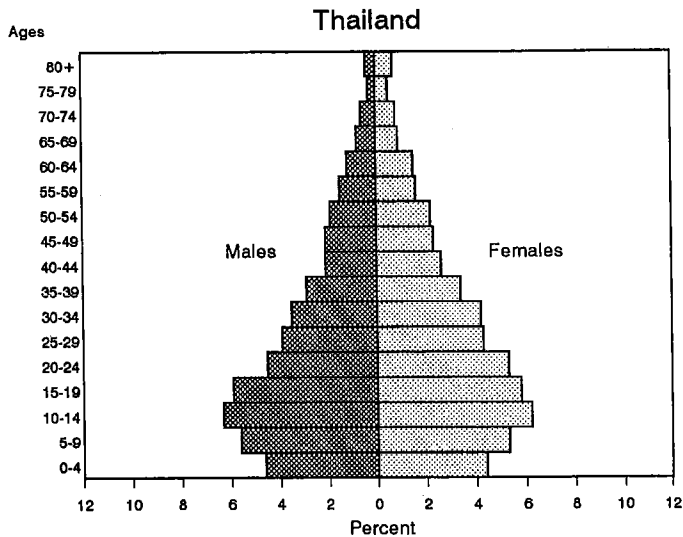
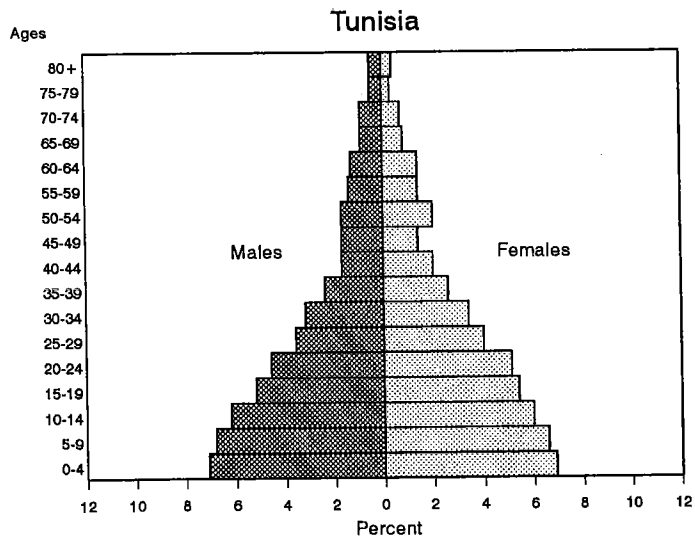
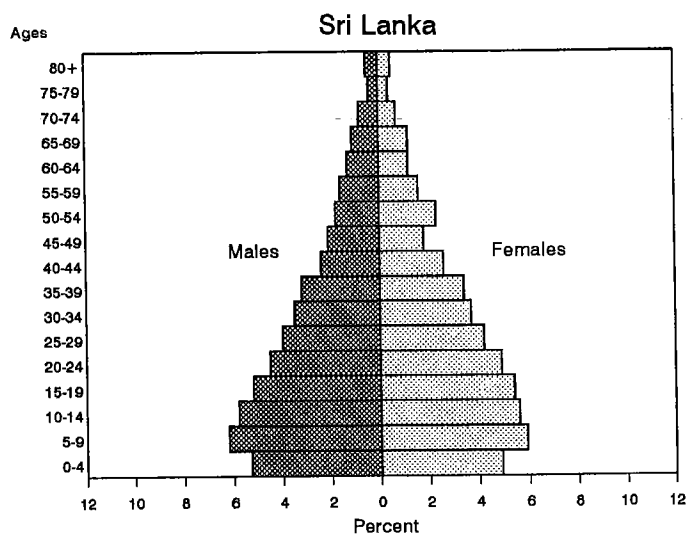
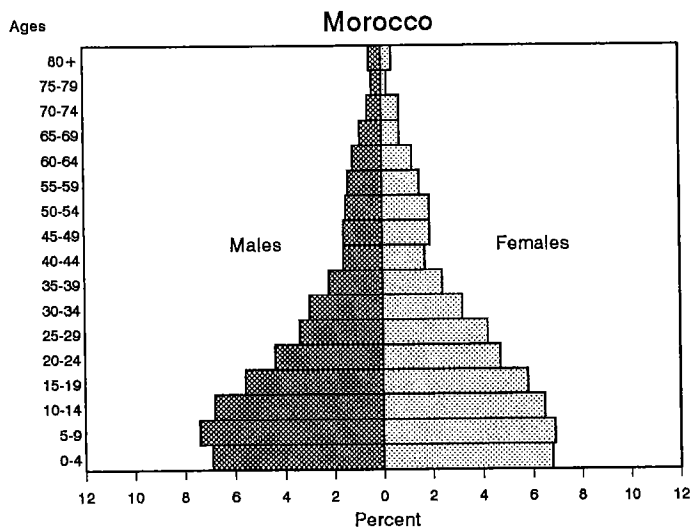
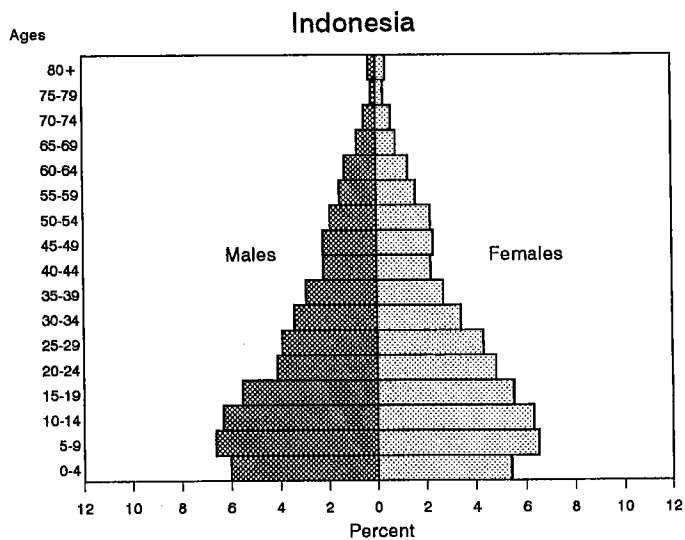


Figure 5.2—Continued

LATIN AMERICA/CARIBBEAN

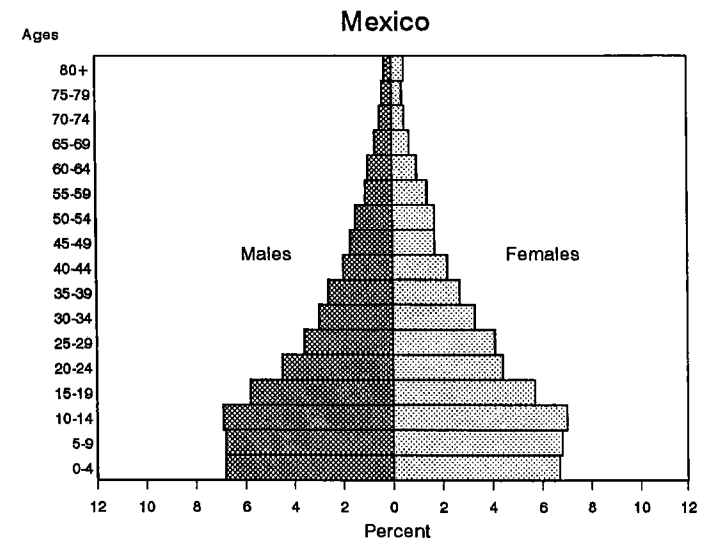
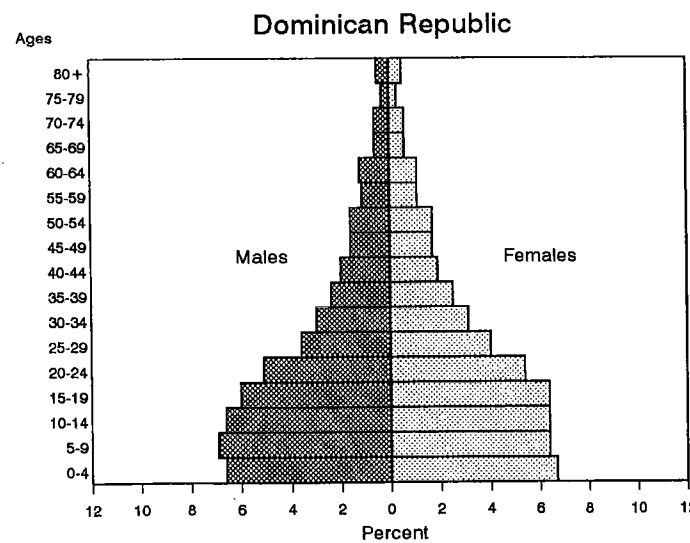
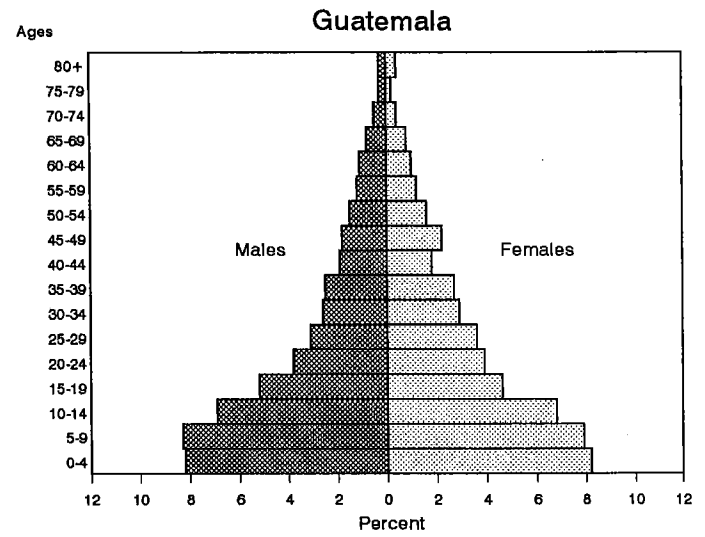
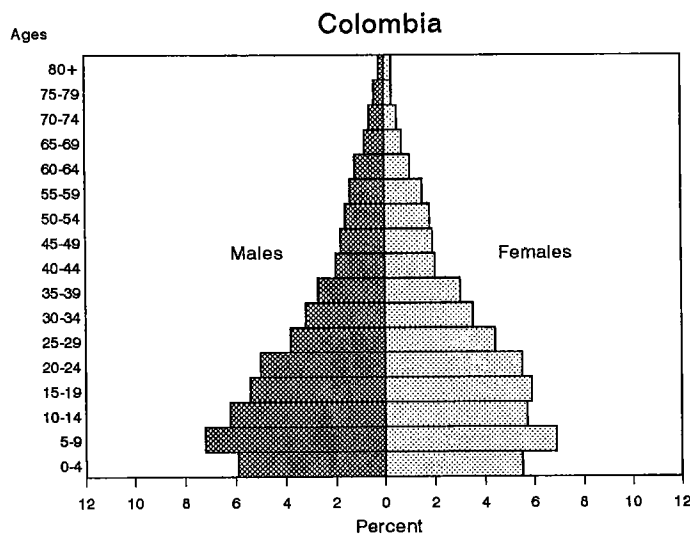
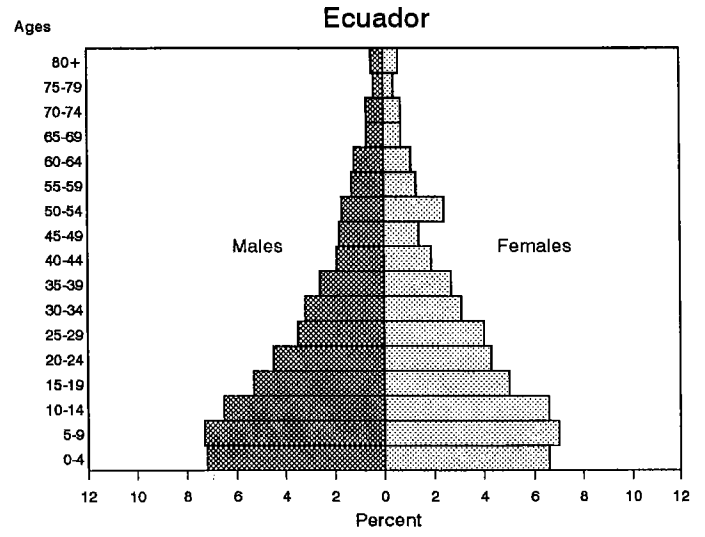
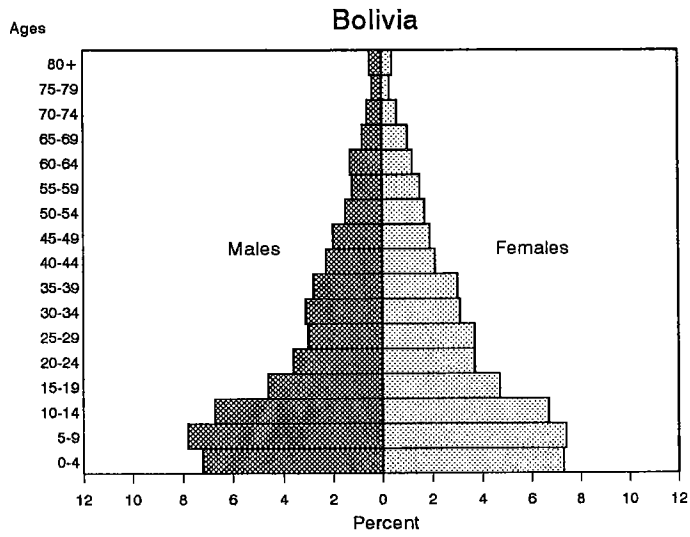


Figure 5.2—Continued

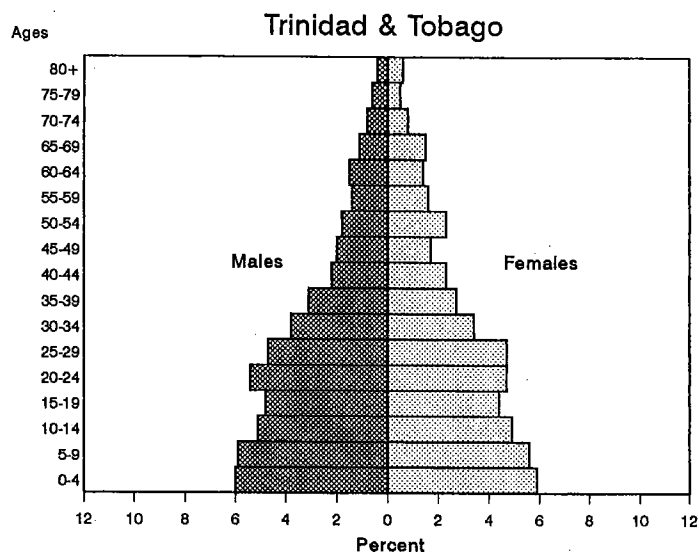
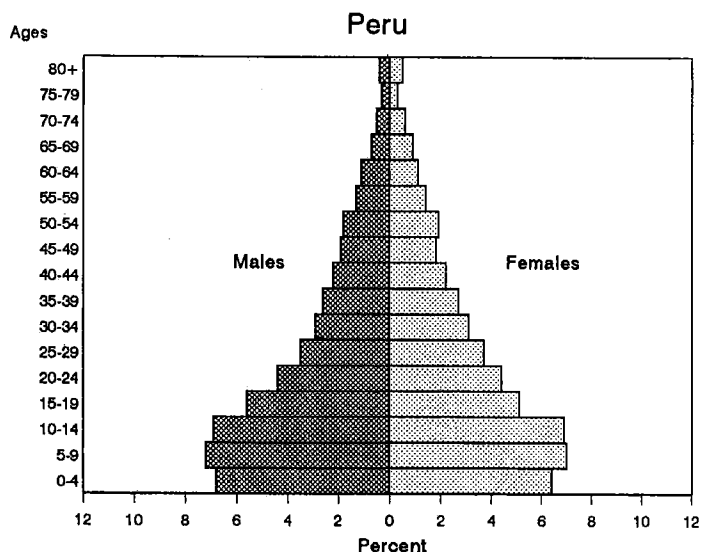


Figure 5.3a illustrates the differences in the age-sex structure between countries that have different demographic histories. In this figure, Thailand's population pyramid overlays the pyramid for Uganda. Uganda, because of its high level of fertility clearly has a larger proportion of children (area shaded in black). Declines in fertility are evident in Thailand: in the last 10 to 15 years, birth cohorts have become progressively smaller. Thailand also shows an excess of men and women in the working age groups 15-64. In the older age groups, both countries have approximately the same proportion of males; however, a higher proportion of older females are found in Thailand than in Uganda.

A comparison of Uganda's age-sex structure with another country, Peru, shows a different pattern (see Figure 5.3b). The level of fertility in Peru lies between that of Thailand and Uganda. Although fertility is declining in Peru, the decline has not been as extensive as that found in Thailand. The difference in the relative proportion of children between Uganda and Peru is less than the difference in the proportion between Uganda and Thailand. A greater proportion of males aged 10-64 is evident in Peru, and the proportion of females aged 30 and older is greater in Peru as well.

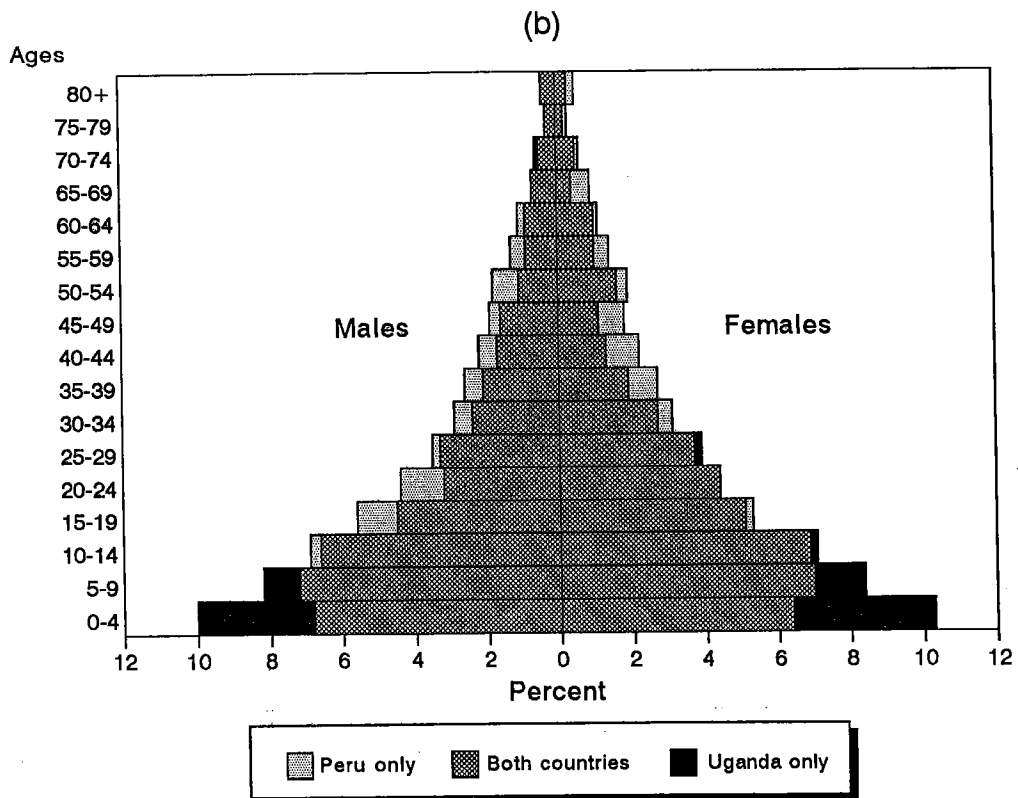
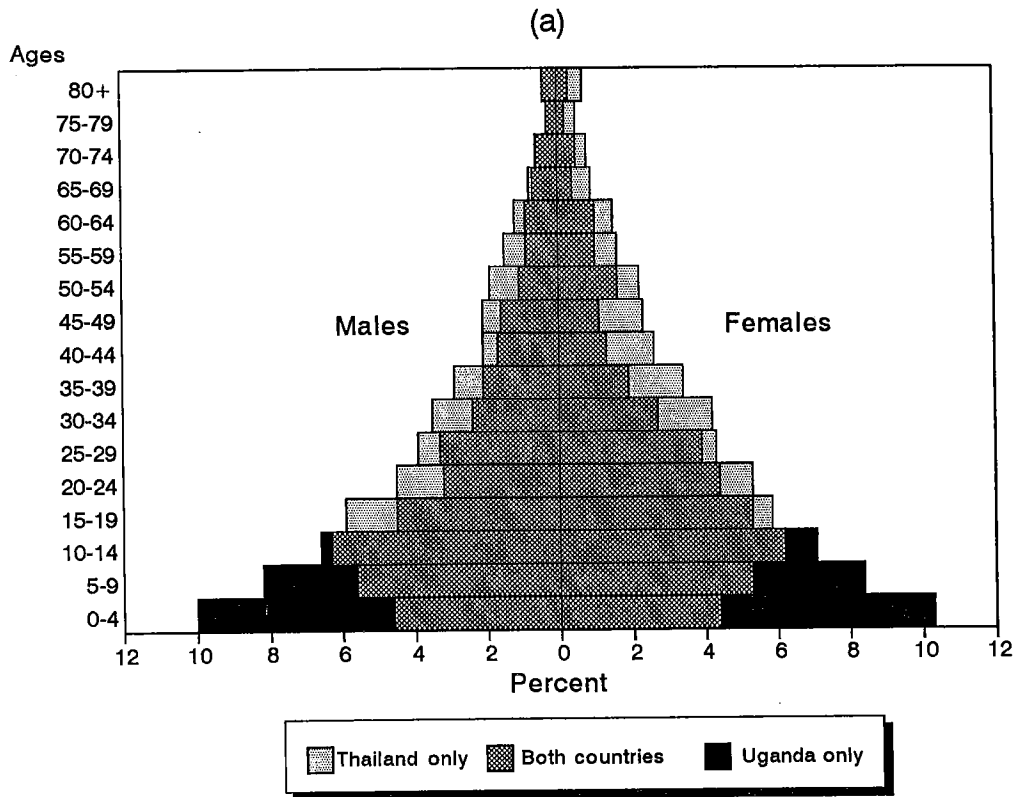
Population pyramids for several countries show a noticeable bulge for women aged 50-54. Although heaping on age 50 probably accounts for some of the excess of women in this age group, a good portion of it is most likely due to displacement of women by interviewers. At times, interviewers will place women aged 45-49

into the older age group in order to decrease the number of women eligible for interview, thus reducing the number of individual interviews. Evidence of this transference is found in Botswana, Burundi, Ecuador, Kenya, Liberia, Mali, Senegal, Sri Lanka, Togo, Trinidad and Tobago, Tunisia, and Uganda (Institute for Resource Development, 1990).

Countries that have a high proportion of children and individuals aged 65 and older—groups often referred to as the *dependent population*—have different economic considerations than countries with a smaller proportion of nonworking individuals. Dependents place heavy demands on the health, education, employment and housing infrastructures that must be maintained and funded by the nondependent or "working" population aged 15-64.

The *dependency ratio*, or the ratio of persons aged 0-14 and aged 65 and older to the number of persons aged 15-64 in a population, is presented in column 5 of Table 5.1. The greatest demands placed on the nondependent population are in sub-Saharan Africa, as shown by the relatively high dependency ratios. Working populations in Asia and in Trinidad and Tobago in the Caribbean support comparatively smaller proportions of children and the elderly. Significant urban-rural differences in the dependency ratio are found in all countries: the dependency ratios in rural areas are much higher than those in urban areas, often due to migration by the working-age population from rural to urban areas.

Figure 5.3 Comparison of population pyramids for (a) Uganda and Thailand, and (b) Uganda and Peru, Demographic and Health Surveys, 1986-1990



Another important indicator in Table 5.1 (columns 7-10) is the *sex ratio*, calculated for each country at the national level and by residence for the total population and by broad age groups. A ratio of 100 represents a balance between the sexes. A ratio above 100 represents more males than females while a ratio below 100 represents the opposite. Sex ratios usually follow age-specific patterns. Ratios above 100 are most common among age groups under 15 years of age due to the excess of males over females at birth. In the adult years 15-64 sex ratios of 100 or slightly less usually reflect the higher mortality rates among males. Because mortality differences in favor of women are even greater among individuals aged 65 and older, ratios are usually much lower in this age group.

On the national level sex ratios usually fall within the range of 95 and 102, unless there is an unusual situation such as a history of war losses or massive migration movements (Shryock and Siegel, 1976). If the adult male population is subject to high levels of out-migration, households are more likely to be composed of women, children, and the elderly. Sex ratios at the national level (column 10) fall into the expected range (95-102) in the majority

of countries, with the exception of Botswana (87), Senegal (92), Thailand (93), and Uganda (94). Trinidad and Tobago's sex ratio (103) lies just beyond the expected range. Aside from the possibility of sex-selective undercounting, male emigration probably explains the lower sex ratios in these countries. In the group most susceptible to migration movement (persons aged 15-64), a more pronounced imbalance between males and females is apparent. There is evidence, for example, in Botswana of a significant labor emigration of adult males to South African mines (Russell et al., 1990). Civil disturbances in recent years have changed the direction of migration in Uganda from an excess of in-migration to an excess of out-migration, especially to Kenya and other neighboring countries (Russell et al., 1990). In Thailand there is evidence of increasing numbers of workers migrating to Western Asia under temporary contractual arrangements (United Nations, 1990).

The sex ratio by residence for the age group 15-64 indicates that there are relatively more males in the urban population than in the rural population in most countries in sub-Saharan Africa and the Near East/North Africa region. The opposite is observed in Latin America and the Caribbean. Countries in Asia do not fall consistently into one group or another.

6 Size of Households

In this section a descriptive assessment is made of the size and structure of households across countries and geographical regions. Table 6.1 shows the percent distribution of households by household size (number of members) and the median and mean household size by urban-rural residence. Mean household size ranges from 4.3 in Trinidad and Tobago to 7.9 in Senegal⁷ (see Figure 6.1). On average, the mean household size is around 5 persons in almost all countries, except in the Near East/North Africa region and two countries in sub-Saharan Africa—Senegal and Sudan—where the mean household size is 5.6 or greater. Differentials in the mean household size by urban-rural residence, shown in Table 6.1, indicate that households in the majority of countries are larger in rural areas than in urban areas. Larger households in urban areas compared to rural areas are found in five countries: Bolivia, Indonesia, Mali, Sri Lanka, and Sudan. There is no residential difference in the mean household size in Peru; it is 5.1 in both urban and rural areas.

The distribution of households according to size varies across geographical regions and among countries in the same region (see Table 6.1 and Figure 6.2). In Figure 6.2, in order to show specific patterns in the distribution of household size, sub-Saharan Africa is further divided into two subregions (East, Central and Southern Africa and West Africa); Latin America is divided into two subregions (Central America and the Caribbean and South America). The distribution of households according to ungrouped household size is presented in Appendix A, Table A.2. In Table 6.1 the household distributions are aggregated into three groups: small households with 1 or 2 members, medium households with 3 to 5 members, and large households with 6 or more members.

Medium-size households predominate in Asia and the Latin America/Caribbean region, largely as a result of relatively low fertility in those regions. The high proportion of medium-size households is believed to be associated with the nuclearization of the household unit.

Household size is more evenly distributed in sub-Saharan Africa and the Near East/North Africa region compared with other regions, suggesting greater variation among households in those

regions. There is, however, a high proportion of large households in the Near East/North Africa region and in parts of sub-Saharan Africa. In these settings, especially in sub-Saharan Africa, the nuclear family is not the norm; fertility levels are high and social and cultural factors favor coresidence of the extended family, the elderly, and nonrelatives. Large households, however, are not confined to these regions: countries in South America also show a relatively high proportion of large households. Similarly, Sri Lanka in Asia and Guatemala in Latin America exhibit a significant percentage of large households.

A high proportion of small households (1 or 2 members) are found in sub-Saharan Africa compared with other regions. Burch (1980) discussed similar findings from a United Nations report (1973) in which a large proportion of small/medium households were found in sub-Saharan Africa, indicating that households of this size are more common than was initially thought.

Summary measures used to study the composition of households in each country—the average number of adults per household and the average number of children per household—are shown in Table 6.2. On average, households in countries with low fertility are likely to have a small number of children, while households in countries with high fertility are likely to have a large number of children. The average ratio of adults per household in nuclear residences is about 2.0; this figure is often exceeded in more complex household arrangements.

On average, slightly less than half of all household members in sub-Saharan Africa are children. The average number of adults per household exceeds 2 in all sub-Saharan countries. Senegal and Sudan stand out with an average of 4.4 and 3.9 adults per household, respectively. In Burundi and Liberia, there are, on average, 3.0 adults per household. The average number of children per household in the Near East/North Africa region is similar to averages found in sub-Saharan Africa; the number of adults per household exceeds 3 in the three countries surveyed in that region. The mean number of adults per household is 3 or above in the Asian countries. In all three countries in this region (Indonesia, Sri Lanka and Thailand), the average number of children per household is less than 2. In Latin America and the Caribbean, with the exception of Guatemala, the patterns are similar to those found in Asia.

⁷The large mean household size in Senegal is due to the sampling of compounds, which are a typical settlement pattern in that country.

Table 6.1 Size of household

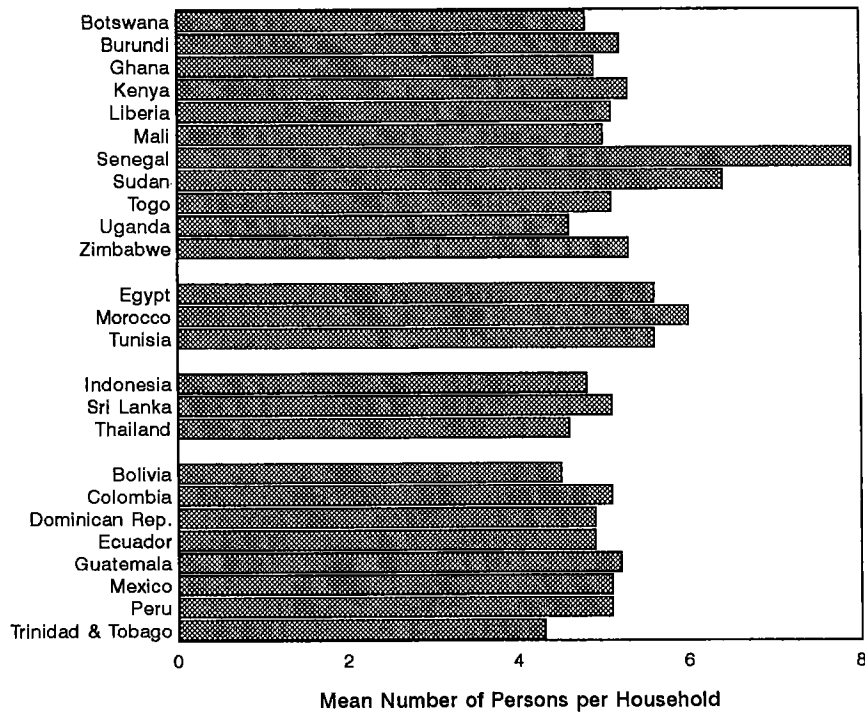
Percent distribution of households by size, and median and mean household size, according to urban-rural residence, Demographic and Health surveys, 1986-1990

Country	Urban					Rural					Total										
	Household size			No. of Total house- holds	Median	Household size			No. of Total house- holds	Median	Household size			No. of Total house- holds	Median						
	1-2	3-5	6+			1-2	3-5	6+			1-2	3-5	6+								
SUB-SAHARAN AFRICA																					
Botswana	39.2	35.4	25.4	100.0	1253	2.8	4.0	25.5	34.4	40.1	100.0	3220	4.1	5.1	29.3	34.7	36.0	100.0	4473	3.7	4.8
Burundi	29.1	38.5	32.4	100.0	169	3.6	4.6	14.8	43.3	42.0	100.0	3699	4.5	5.3	15.4	43.1	41.6	100.0	3864	4.4	5.2
Ghana	33.1	35.4	31.5	100.0	1528	3.3	4.4	21.7	38.6	39.7	100.0	2878	4.2	5.1	25.7	37.5	36.9	100.0	4406	3.9	4.9
Kenya	46.1	34.8	19.0	100.0	1789	2.3	3.4	18.3	31.7	50.1	100.0	6384	5.0	5.8	24.3	32.4	43.3	100.0	8173	4.4	5.3
Liberia	32.2	35.7	32.1	100.0	2212	3.4	4.7	24.0	37.0	39.1	100.0	2811	4.0	5.4	27.6	36.4	36.0	100.0	5023	3.8	5.1
Mali	20.7	40.6	38.7	100.0	742	4.1	5.4	21.3	44.3	34.4	100.0	2306	3.8	4.9	21.2	43.4	35.4	100.0	3048	3.8	5.0
Senegal	24.8	23.2	52.1	100.0	1544	5.2	7.2	13.6	23.9	62.5	100.0	2192	6.5	8.4	18.2	23.6	58.2	100.0	3736	5.9	7.9
Sudan (North)	8.5	26.8	64.7	100.0	2451	6.3	7.3	13.2	35.6	51.2	100.0	4440	5.1	5.9	11.5	32.4	56.0	100.0	6891	5.5	6.4
Togo	31.0	34.6	34.4	100.0	1084	3.5	4.8	24.7	36.2	39.1	100.0	4340	4.0	5.3	26.7	35.7	37.6	100.0	3432	3.9	5.1
Uganda	32.6	37.3	30.1	100.0	497	3.3	4.4	28.3	39.1	32.6	100.0	4604	3.7	4.6	28.7	38.9	32.3	100.0	5101	3.7	4.6
Zimbabwe	31.7	37.5	30.9	100.0	1417	3.4	4.4	16.2	34.4	49.4	100.0	2690	5.0	5.7	21.5	35.5	43.1	100.0	4107	4.4	5.3
NEAR EAST/ NORTH AFRICA																					
Egypt	14.5	49.0	36.5	100.0	5280	4.3	5.0	12.2	32.4	55.4	100.0	4525	5.4	6.2	13.5	41.3	45.2	100.0	9805	4.7	5.6
Morocco	17.5	34.6	48.0	100.0	3252	4.8	5.5	13.6	29.4	57.1	100.0	3708	5.6	6.5	15.4	31.8	52.8	100.0	6960	5.2	6.0
Tunisia	12.1	41.5	46.4	100.0	3324	4.8	5.4	12.1	34.6	53.3	100.0	2321	5.2	5.8	12.1	38.7	49.2	100.0	5645	5.0	5.6
ASIA																					
Indonesia ¹	15.6	44.1	40.3	100.0	4943	4.4	5.1	15.3	54.1	30.5	100.0	9199	3.9	4.6	15.4	50.6	33.9	100.0	14142	4.1	4.8
Sri Lanka	9.6	49.1	41.3	100.0	1251	4.6	5.3	10.7	52.8	36.5	100.0	6418	4.3	5.0	10.5	52.2	37.3	100.0	7669	4.4	5.1
Thailand	22.9	51.5	25.6	100.0	1664	3.5	4.4	13.6	57.4	29.0	100.0	7381	3.9	4.6	15.3	56.3	28.4	100.0	9045	3.8	4.6
LATIN AMERICA/ CARIBBEAN																					
Bolivia	17.9	50.0	32.2	100.0	4618	4.0	4.6	25.8	44.5	29.7	100.0	3821	3.6	4.3	21.4	47.5	31.2	100.0	8439	3.8	4.5
Colombia	13.7	52.2	34.1	100.0	2894	4.1	4.9	14.8	42.3	42.9	100.0	1379	4.5	5.4	14.1	49.0	37.0	100.0	4273	4.2	5.1
Dominican Republic	20.3	44.4	35.3	100.0	4183	4.1	4.9	20.8	40.8	38.4	100.0	2969	4.1	5.0	20.5	42.9	36.6	100.0	7142	4.1	4.9
Ecuador	16.2	51.3	32.5	100.0	2444	4.0	4.8	18.1	42.0	39.9	100.0	2134	4.3	5.0	17.1	47.0	36.0	100.0	4578	4.1	4.9
Guatemala	14.5	49.9	35.6	100.0	1919	4.2	4.9	12.5	42.4	45.0	100.0	3540	4.7	5.4	13.2	45.1	41.7	100.0	5459	4.5	5.2
Mexico	15.9	49.8	34.3	100.0	5537	4.0	4.9	13.1	38.5	48.4	100.0	2249	4.9	5.6	15.1	46.5	38.4	100.0	7786	4.3	5.1
Peru	14.9	46.3	38.8	100.0	2761	4.4	5.1	18.8	38.8	42.4	100.0	1736	4.4	5.1	16.4	43.4	40.2	100.0	4497	4.4	5.1
Trinidad & Tobago	31.5	45.6	22.9	100.0	1957	3.2	4.0	24.8	44.0	31.3	100.0	2165	3.8	4.5	28.0	44.7	27.3	100.0	4122	3.5	4.3

Note: The total number of households includes households with size 0, e.g., households in which no member spent the night before the interview in the household (resident absent).

¹Based on de jure population

Figure 6.1 Mean number of persons per household, Demographic and Health Surveys, 1986-1990



In order to examine changes in the mean household size over time, DHS-I data were compared with data collected in the World Fertility Survey (see Table 6.3). A decline in the mean household size—on average, less than 1 person per household—is observed in five countries: Colombia, Dominican Republic, Morocco, Peru and Sri Lanka. In Thailand, households lost slightly more than 1 person between 1975 (6.0) and 1987 (4.6). Sudan is the only country that experienced a significant increase in mean household size,

from 5.5 in 1978/79 to 6.4 in 1989/90. It is possible that civil unrest in southern Sudan may have pushed refugees into the surveyed northern area. Table 6.3 indicates that the direction and magnitude of change in household size are about the same in urban and rural areas in most countries. In Morocco, however, the small decline in household size in urban areas was paralleled by a small increase in rural areas.

Figure 6.2 Distribution of households by size, Demographic and Health Surveys, 1986-1990

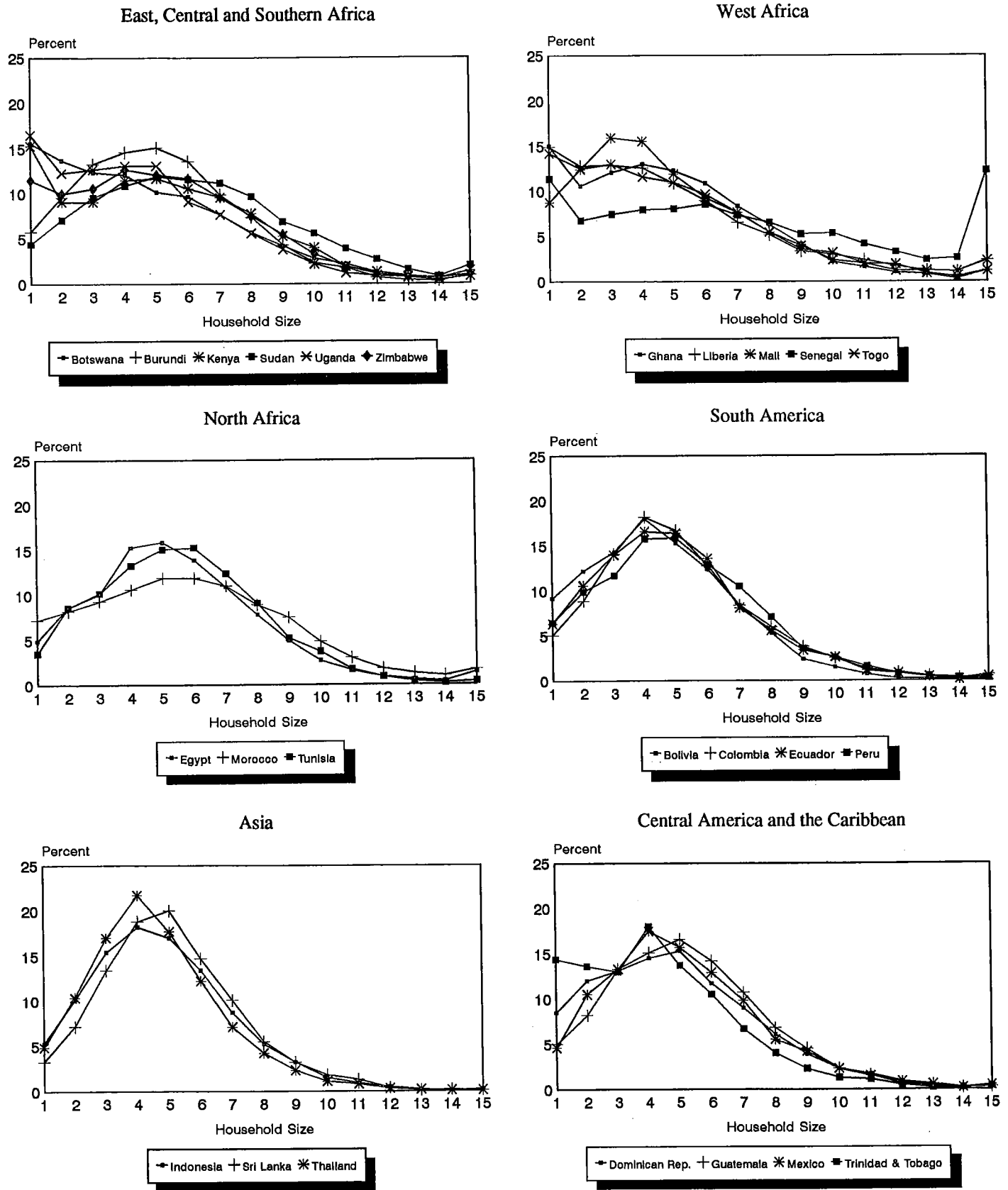


Table 6.2 Summary measures of household size

Average number of children per household, average number of adults per household, and mean household size (de jure population), Demographic and Health Surveys, 1986-1990

Country	Average number of children per household	Average number of adults per household	Mean household size
SUB-SAHARAN AFRICA			
Botswana	2.3	2.7	5.0
Burundi	2.5	3.0	5.5
Ghana	2.4	2.7	5.1
Kenya	2.8	2.7	5.5
Liberia	2.4	3.0	5.3
Mali	2.6	2.8	5.3
Senegal	3.8	4.4	8.2
Sudan (North)	2.8	3.9	6.6
Togo	2.5	2.7	5.2
Uganda	2.3	2.4	4.8
Zimbabwe	2.5	2.7	5.3
NEAR EAST/NORTH AFRICA			
Egypt	2.3	3.4	5.7
Morocco	2.5	3.7	6.2
Tunisia	2.2	3.4	5.6
ASIA			
Indonesia	1.8	3.0	4.8
Sri Lanka	1.7	3.5	5.2
Thailand	1.5	3.3	4.8
LATIN AMERICA/CARIBBEAN			
Bolivia	1.9	2.7	4.6
Colombia	1.9	3.3	5.2
Dominican Republic	1.9	3.0	4.9
Ecuador	2.0	3.0	5.0
Guatemala	2.4	2.9	5.4
Mexico	2.1	3.1	5.2
Peru ¹	2.1	3.0	5.1
Trinidad & Tobago	1.4	2.9	4.3

Note: With the exception of Peru, the de jure population is used to calculate the mean household size for each country; hence, these means are slightly higher than those shown in Table 5.1, which are calculated using the de facto population. Adults are defined as persons aged 15 and older. Children are defined as persons aged 0-14.

¹Based on de facto population

Table 6.3 Trends in mean household size

Mean household size by urban-rural residence, selected WFS and DHS surveys, 1975-1990

Country/ Survey	Mean household size		
	Urban	Rural	All
Ghana			
WFS 1979/80	NA	NA	4.8
DHS 1988	4.4	5.1	4.9
Morocco			
WFS 1980	5.9	6.4	6.2
DHS 1987	5.5	6.5	6.0
Sudan (North)			
WFS 1978/79	6.1	5.1	5.5
DHS 1989/90	7.3	5.9	6.4
Sri Lanka			
WFS 1975	6.2	5.7	5.7
DHS 1987	5.3	5.0	5.1
Thailand			
WFS 1975	6.2	6.0	6.0
DHS 1987	4.4	4.6	4.6
Dominican Republic			
WFS 1975	5.2	5.4	5.3
DHS 1986	4.9	5.0	4.9
Colombia			
WFS 1976	5.4	5.9	5.6
DHS 1986	4.9	5.4	5.1
Peru			
WFS 1977/78	5.5	5.2	5.4
DHS 1986	5.1	5.1	5.1

NA = Not applicable

7 Headship of Households

For the DHS-I household questionnaire, one adult respondent was asked to list all persons who usually lived in the household or had spent the night before the interview in the household, starting with the head of household. Headship was assigned by the household respondent with only one restriction: children (persons under 15) were not allowed to be designated as household heads. This leaves a great deal of room for interpretation on the part of respondents (Bruce and Lloyd, 1992). No other questions were asked about the household heads, as was the case in the World Fertility Survey (Zoughlami and Allsopp, 1985).

Typically in traditional societies, the oldest male is designated as the head of household regardless of whether he is the primary source of economic support, the authority figure, or fulfills other tasks purportedly performed by household heads. However, circumstances which give rise to female headship have become more prevalent, thus female headship is now relatively common in many countries. Situations customarily associated with female headship are varied and encompass a wide range of circumstances. Bruce and Lloyd (1992) have highlighted several of these: widowhood, migration of men and/or women, nonmarital fertility, marital instability, and non-coresidential polygyny.

Although the proportion of female-headed households in DHS-I survey countries reaches as high as 45 percent (Botswana), the majority of households are still headed by men (see Table 7.1 and Figure 7.1). The results suggest that the traditional pattern of male-headed households is most intact in countries in the Near East/North Africa region, Asia (with the exception of Thailand), and in parts of Latin America and the Caribbean. The percentage of female-headed households is 20 percent or less in these countries. Only 11 percent of households in Egypt and Tunisia are headed by females. The smallest proportion of female-headed households was reported in a sub-Saharan country—Mali (9 percent).

A slightly different pattern emerges in sub-Saharan Africa. Of the 11 countries in this region, 6 have 20 percent or more households headed by females, with the highest proportions found in Botswana (45 percent), Ghana (32 percent) and Zimbabwe (33 percent). The large proportion of female-headed households in Botswana is partly a result of the high level of male emigration to South Africa to work in the mines (Rutenberg and Diamond, 1993). In Ghana, the matrilineal structure of kinship groups may account for the high level of female headship in that country (McDonald, 1985). Similar results are observed for the Caribbean

countries of the Dominican Republic and Trinidad and Tobago, where 26 percent and 29 percent of households, respectively, are headed by women. This confirms existing evidence from that region of a high level of common-law unions, associated with a strong mother-child bond and a secondary role for males (Charbit, 1984).

Table 7.1 Sex of head of household

Percent distribution of households by sex of head of household (de jure population), Demographic and Health Surveys, 1986-1990

Country	Household head		Total percent
	Female	Male	
SUB-SAHARAN AFRICA			
Botswana	45.4	54.6	100.0
Burundi	17.1	82.9	100.0
Ghana	31.5	68.5	100.0
Kenya	26.4	73.6	100.0
Liberia	19.0	81.0	100.0
Mali	9.1	90.9	100.0
Senegal	16.6	83.4	100.0
Sudan (North)	12.6	87.4	100.0
Togo	25.6	74.4	100.0
Uganda	19.6	80.4	100.0
Zimbabwe	32.9	67.1	100.0
NEAR EAST/NORTH AFRICA			
Egypt	11.4	88.6	100.0
Morocco	17.3	82.7	100.0
Tunisia	11.0	89.0	100.0
ASIA			
Indonesia	13.6	86.4	100.0
Sri Lanka	17.8	82.2	100.0
Thailand	20.8	79.2	100.0
LATIN AMERICA/CARIBBEAN			
Bolivia	17.3	82.7	100.0
Colombia	18.4	81.6	100.0
Dominican Republic	25.7	74.3	100.0
Ecuador	14.6	85.4	100.0
Guatemala	13.4	86.6	100.0
Mexico	13.3	86.7	100.0
Peru ¹	19.5	80.5	100.0
Trinidad & Tobago	28.6	71.4	100.0

¹Based on de facto population

Figure 7.1 Percentage of female-headed households, Demographic and Health Surveys, 1986-1990

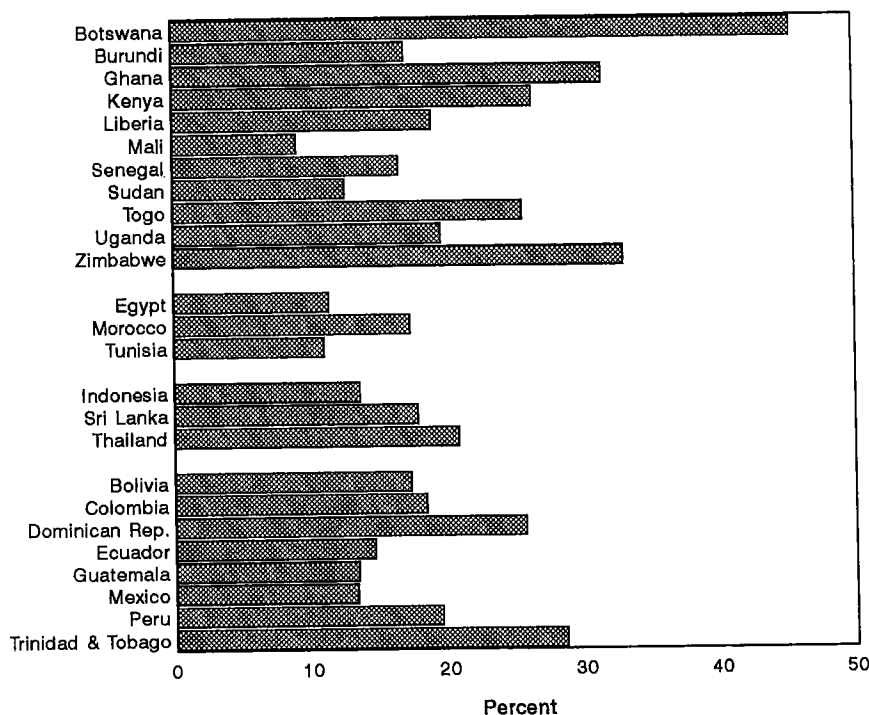


Table 7.2 shows the distribution of female-headed households and male-headed households by urban-rural residence. In almost all of the countries, the tendency toward female-headed households is more prevalent in urban areas than in rural areas. In three African countries (Botswana, Kenya and Zimbabwe) and in Indonesia, however, the opposite is true: the percentage of female-headed households is higher in rural areas than in urban areas. The particularly high rate of migration among men in Botswana (Kossoudji and Mueller, 1983), probably accounts for the high level of female-headship in rural Botswana; 50 percent of rural households are headed by women.

Table 7.3 displays the age-specific headship rates for males and females by 10-year age groups beginning with the 15-24 year age group. In this table, the person rather than the household is the unit of analysis. Age-specific headship rates represent the proportion of men and women in each age group who are household heads. Male age-specific headship rates are expected to increase rapidly between ages 15-35, peak between the ages of 45-54 and decline among men aged 65 and older. Age-specific headship rates for females are expected to increase slowly in the younger years and gradually gain some momentum after age 35. Rates usually peak in the oldest age group (65 and older), the age group when many women acquire headship following the death of their spouse. The declines in male-specific headship rates seen at ages 65 and older may be caused by a reassignment of headship to a younger household member.

The pattern of age-specific headship rates varies across regions (see Figure 7.2). The more traditional pattern described above is observed in the Near East, Asia, and Latin America. Among the sub-Saharan countries the pattern of female-headship rates varies considerably: rates for Mali portray a very traditional pattern, while rates for Botswana show a significantly different picture. Botswana has the highest proportion of female-heads in all age groups up to 65 and older; and the difference between male- and female-age specific headship rates is smallest in Botswana. The Caribbean countries surveyed have relatively high rates of female-headship as well. Variations within regions probably result from a combination of several factors such as differences in nuptiality and migration patterns, and complexity of living arrangements.

Table 7.4 presents a more detailed version of Table 6.2: the summary measures of household size are shown according to the sex of the head of household. The average number of children is higher in male-headed households compared with female-headed households, with the exception of Botswana, Zimbabwe and Ghana. There is also a higher average number of adults per household in male-headed households compared with female-headed households. The higher mean household size in male-headed households for most countries reflects both the higher average number of adults per household and the higher average number of children found in male-headed households.

Table 7.2 Sex of head of household by urban-rural residence

Percent distribution of households by sex of head of household and urban-rural residence (de jure population), Demographic and Health Surveys, 1986-1990

Country	Urban			Rural		
	Female-headed household	Male-headed household	Total percent	Female-headed household	Male-headed household	Total percent
<u>SUB-SAHARAN AFRICA</u>						
Botswana	33.4	66.6	100.0	50.0	50.0	100.0
Burundi	24.7	75.3	100.0	16.8	83.2	100.0
Ghana	34.0	66.0	100.0	30.2	69.8	100.0
Kenya	17.5	82.5	100.0	28.9	71.1	100.0
Liberia	22.3	77.7	100.0	16.4	83.6	100.0
Mali	14.4	85.6	100.0	7.3	92.7	100.0
Senegal	19.9	80.1	100.0	14.2	85.8	100.0
Sudan (North)	13.3	86.7	100.0	12.1	87.9	100.0
Togo	28.9	71.1	100.0	24.1	75.9	100.0
Uganda	25.3	74.7	100.0	19.0	81.0	100.0
Zimbabwe	19.3	80.7	100.0	40.1	59.9	100.0
<u>NEAR EAST/ NORTH AFRICA</u>						
Egypt	11.7	88.3	100.0	11.1	88.9	100.0
Morocco	20.1	79.9	100.0	14.8	85.2	100.0
Tunisia	12.2	87.8	100.0	9.3	90.7	100.0
<u>ASIA</u>						
Indonesia	13.5	86.5	100.0	13.7	86.3	100.0
Sri Lanka	20.3	79.7	100.0	17.3	82.7	100.0
Thailand	26.4	73.6	100.0	19.6	80.4	100.0
<u>LATIN AMERICA/ CARIBBEAN</u>						
Bolivia	19.8	80.8	100.0	15.0	85.0	100.0
Colombia	20.6	79.4	100.0	14.0	86.0	100.0
Dominican Republic	28.4	71.6	100.0	22.0	78.0	100.0
Ecuador	16.7	83.3	100.0	12.3	87.7	100.0
Guatemala	18.2	81.8	100.0	10.8	89.2	100.0
Mexico	15.7	84.3	100.0	7.5	92.5	100.0
Peru ¹	19.6	80.4	100.0	19.5	80.5	100.0
Trinidad & Tobago	32.4	67.6	100.0	25.2	74.8	100.0

¹Based on de facto population

Table 7.3 Household headship by sex and age

Percentage of male and female household heads by 10-year age groups (de jure population), Demographic and Health Surveys, 1986-1990

Country	Female age-specific headship rates						Male age-specific headship rates					
	15-24	25-34	35-44	45-54	55-64	65+	15-24	25-34	35-44	45-54	55-64	65+
<u>SUB-SAHARAN AFRICA</u>												
Botswana	11.4	30.1	38.1	45.3	53.3	51.2	10.1	41.2	68.0	76.9	85.5	83.5
Burundi	0.9	3.6	11.3	22.7	34.6	39.6	8.8	66.3	85.6	92.8	94.0	93.3
Ghana	5.2	17.0	24.5	38.4	49.7	51.1	9.3	61.5	82.3	89.1	89.1	83.1
Kenya	2.8	17.9	25.3	29.4	40.3	53.6	6.6	61.0	89.6	93.3	94.9	93.6
Liberia	4.9	10.1	16.0	18.3	24.5	25.9	11.1	58.4	81.0	85.0	83.0	79.8
Mali	1.8	3.7	5.9	9.9	15.5	16.8	9.6	76.6	97.2	98.9	98.1	98.2
Senegal	2.5	4.9	8.9	14.1	13.2	13.7	4.3	24.9	56.4	78.9	86.4	86.6
Sudan (North)	1.1	4.6	9.2	11.9	16.0	23.4	4.4	38.6	75.4	87.1	86.4	78.7
Togo	5.7	15.0	18.7	24.8	32.0	43.5	13.2	74.1	96.6	96.8	96.5	87.9
Uganda	3.6	11.7	19.8	30.0	40.3	50.6	23.6	82.7	89.3	92.8	90.8	93.7
Zimbabwe	6.2	25.9	35.7	38.6	35.1	40.2	6.1	60.0	85.7	86.7	90.3	83.7
<u>NEAR EAST/ NORTH AFRICA</u>												
Egypt	0.2	1.5	6.8	13.9	22.5	22.9	3.7	43.4	85.7	95.2	96.6	89.5
Morocco	0.7	5.3	11.5	16.9	26.4	23.2	3.2	39.8	79.9	92.1	91.7	83.3
Tunisia	0.6	3.1	5.9	11.6	19.5	21.6	2.5	51.2	90.3	96.9	94.9	76.9
<u>ASIA</u>												
Indonesia	1.1	2.3	8.4	16.1	25.7	31.1	7.1	63.8	91.4	95.6	92.4	83.6
Sri Lanka	0.5	2.9	8.7	17.9	29.4	38.0	2.9	38.1	71.3	86.0	88.2	82.4
Thailand	1.8	6.5	11.7	20.7	33.5	37.3	5.3	50.1	80.9	89.3	90.4	81.1
<u>LATIN AMERICA/ CARIBBEAN</u>												
Bolivia	3.0	7.2	10.8	22.2	27.4	36.7	12.3	67.9	89.9	92.8	93.6	86.4
Colombia	1.0	6.6	15.8	20.5	27.7	36.3	7.3	53.7	82.9	88.4	90.1	83.7
Dominican Republic	4.0	14.7	24.4	28.7	37.6	41.6	11.7	53.0	79.7	85.1	85.7	77.9
Ecuador	1.7	5.0	11.0	16.0	22.7	33.0	11.6	63.1	85.9	92.3	92.7	86.7
Guatemala	0.5	3.7	11.4	16.9	23.9	33.0	12.1	67.9	90.0	92.6	93.1	83.4
Mexico	0.7	3.9	8.3	16.8	25.8	30.7	12.6	67.9	89.5	92.7	92.3	87.7
Peru ¹	2.9	8.5	15.2	23.0	24.2	33.8	8.6	54.0	85.7	91.6	93.0	84.9
Trinidad & Tobago	2.1	9.6	18.8	32.1	48.4	55.2	5.0	44.2	74.3	85.9	86.9	83.6

¹Based on de facto population

Figure 7.2 Age-specific headship rates for males and females, selected Demographic and Health Surveys, 1986-1989

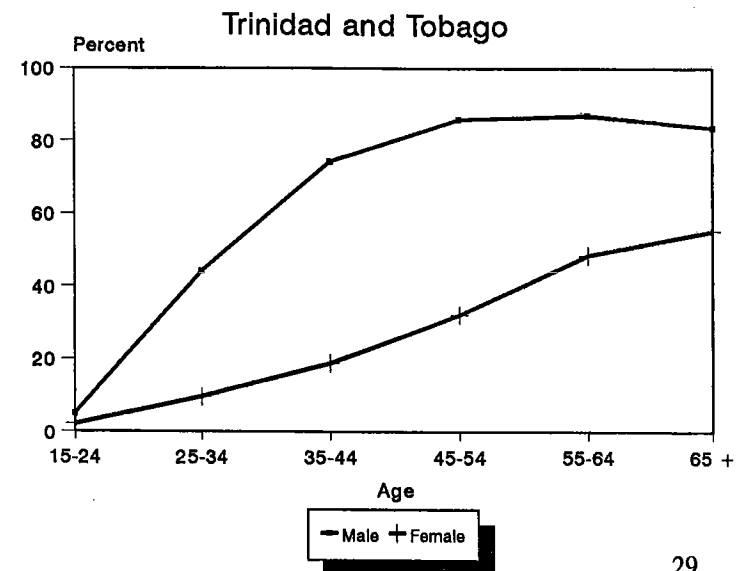
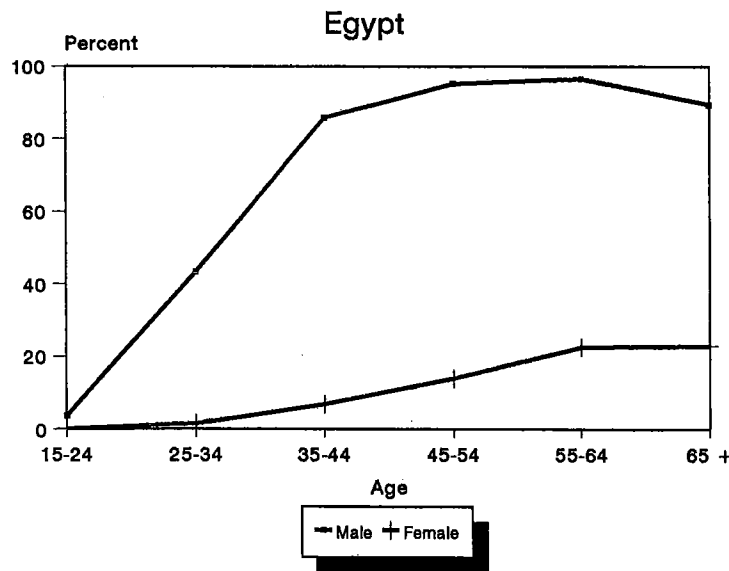
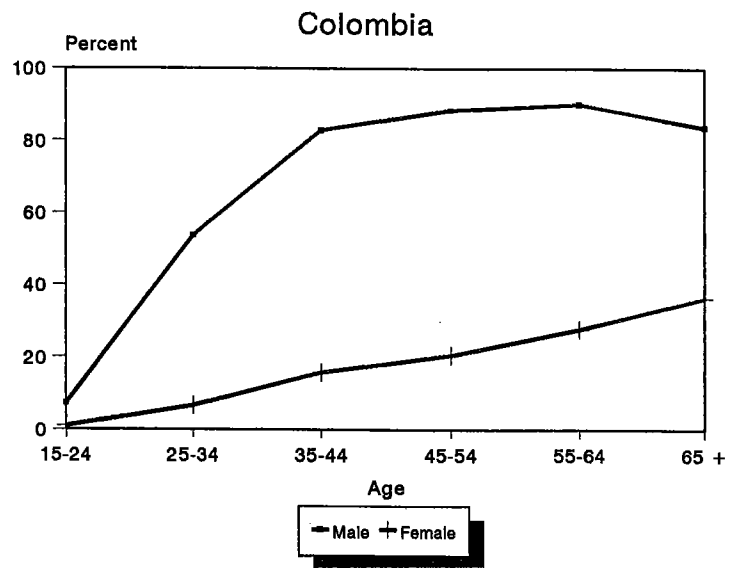
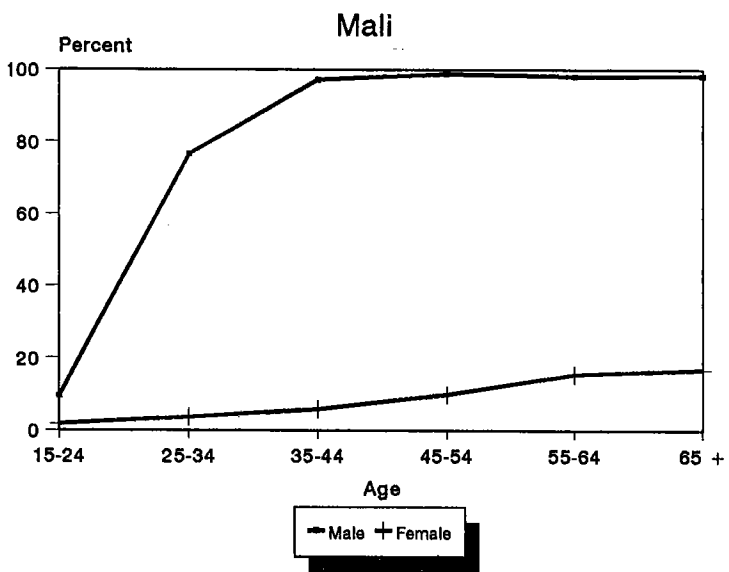
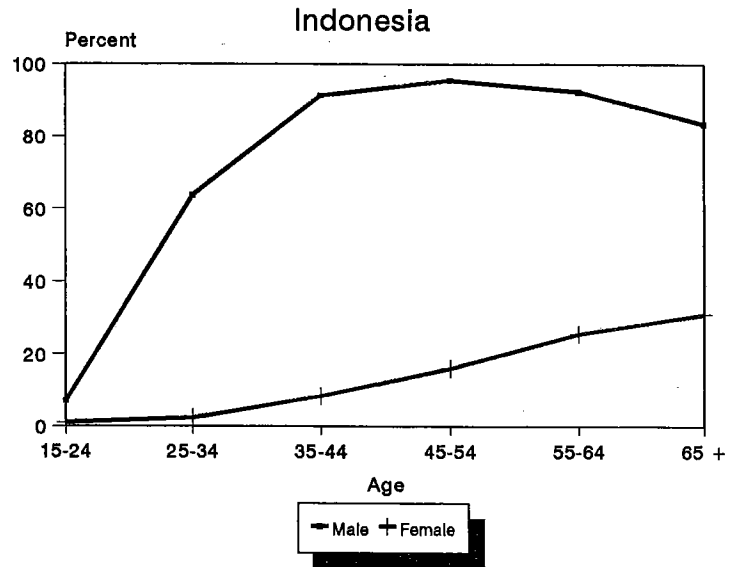
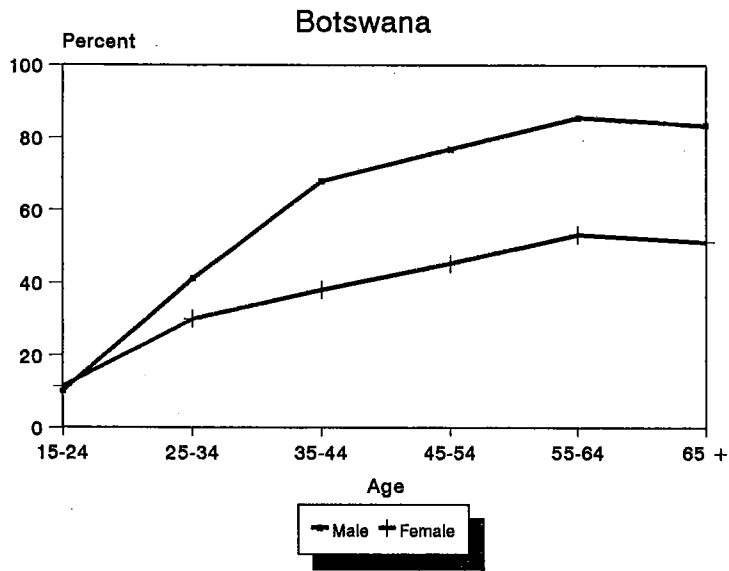


Table 7.4 Summary measures of household size by sex of household head

Average number of children per household, average number of adults per household, and mean household size (de jure population), by sex of head of household, Demographic and Health Surveys, 1986-1990

Country	Female-headed households			Male-headed households		
	Average number of children per household	Average number of adults per household	Mean household size	Average number of children per household	Average number of adults per household	Mean household size
<u>SUB-SAHARAN AFRICA</u>						
Botswana	2.6	2.5	5.1	2.1	2.8	4.9
Burundi	1.6	2.6	4.2	2.7	3.0	5.7
Ghana	2.5	2.6	5.1	2.3	2.7	5.1
Kenya	2.5	2.2	4.7	2.8	2.9	5.7
Liberia	2.3	2.6	5.0	2.4	3.0	5.4
Mali	1.4	1.8	3.3	2.7	2.9	5.6
Senegal	2.3	3.0	5.3	4.1	4.7	8.8
Sudan (North)	1.9	3.0	5.0	2.9	4.0	6.9
Togo	1.7	1.8	3.5	2.8	3.0	5.8
Uganda	2.1	2.0	4.1	2.4	2.5	4.9
Zimbabwe	2.7	2.4	5.1	2.4	2.9	5.3
<u>NEAR EAST/NORTH AFRICA</u>						
Egypt	1.0	2.7	3.6	2.5	3.5	6.0
Morocco	1.4	2.7	4.1	2.7	3.9	6.6
Tunisia	1.1	2.8	3.9	2.3	3.5	5.8
<u>ASIA</u>						
Indonesia	0.9	2.4	3.3	1.9	3.1	5.0
Sri Lanka	1.3	3.4	4.6	1.8	3.5	5.3
Thailand	1.2	3.0	4.2	1.6	3.3	4.9
<u>LATIN AMERICA/CARIBBEAN</u>						
Bolivia	1.2	2.3	3.5	2.1	2.7	4.8
Colombia	1.5	2.9	4.4	2.0	3.3	5.3
Dominican Republic	1.7	2.8	4.5	2.0	3.1	5.1
Ecuador	1.3	2.5	3.8	2.1	3.0	5.2
Guatemala	1.6	2.7	4.3	2.6	3.0	5.5
Mexico	1.2	2.7	3.9	2.2	3.2	5.4
Peru ¹	1.7	2.5	4.2	2.2	3.1	5.4
Trinidad & Tobago	1.3	2.9	4.2	1.5	2.9	4.4

Note: With the exception of Peru, the de jure population is used to calculate the mean household size for each country; hence these means are slightly higher than those shown in Table 6.3, which were calculated using the de facto population. Adults are defined as persons aged 15 and older.

Children are defined as persons aged 0-14.

¹Based on de facto population

Bruce and Lloyd (1992) found across many countries that female-headship was often the result of marriage dissolution. In addition, a recent study suggests that households headed by formerly married women may be worse off economically than households headed by married women (Lloyd and Gage-Brandon, 1993). Formerly married women in Ghana are less likely to receive remittance money from an absent household member or husband than married women and, consequently, are more likely to feel the ad-

verse economic consequences often associated with female-headship.

The percent distribution of female-headed households by marital status of the household head is shown in Table 7.5 for six countries that included a question on marital status in the household questionnaire. In each country, formerly married women are more likely to be heads of households than either currently mar-

ried women or single women, in that order. Among the total number of female-headed households, the highest percentage headed by formerly married women is found in Egypt (91 percent) and the lowest in Thailand (67 percent).

The six countries considered here are primarily from the Near East/North Africa region and Asia, where the overall prevalence of female-headed households is generally low. In the Latin America/Caribbean region and in sub-Saharan Africa, where marriage forms and practices are less cohesive (McDonald, 1985), the percentage of female-headed households headed by currently married women and single women is expected to be higher.

Female-headship rates for 10 DHS-I countries are compared with WFS rates in Table 7.6. The percentage of female-headed households has increased in 7 of the 10 countries and decreased in 2 (Indonesia and Sudan); female-headship rates in Mexico remained almost unchanged between 1976/77 and 1987. The increase was most pronounced in Thailand, where the percentage increased by 66 percent between 1975 and 1987. Morocco experienced a 50 percent increase in female-headed households between 1980 and 1987.

Table 7.5 Female-headed households by marital status of household head

Percent distribution of female-headed households by marital status of household head (de jure population), Demographic and Health Surveys, 1987-1989

Country	Marital status of household head			Total percent
	Single	Currently married	Formerly married	
Burundi	3.7	14.1	82.2	100.0
Egypt	3.3	5.2	91.4	100.0
Morocco	3.2	27.1	69.7	100.0
Tunisia	2.7	22.5	74.7	100.0
Thailand	11.4	21.3	67.3	100.0
Sri Lanka	3.4	21.8	74.7	100.0

Table 7.6 Trends in proportion of female-headed households

Percentage of households headed by females (de jure population), selected WFS and DHS surveys, 1975-1990

Country	Survey	Percent
Sudan (North)	WFS 1978/79	16.7
	DHS 1989/90	12.6
Morocco	WFS 1980	11.5
	DHS 1987	17.3
Indonesia	WFS 1978	15.5
	DHS 1987	13.6
Sri Lanka	WFS 1975	15.7
	DHS 1987	17.8
Thailand	WFS 1975	12.5
	DHS 1987	20.8
Colombia	WFS 1976	17.5
	DHS 1986	18.4
Dominican Republic	WFS 1975	20.7
	DHS 1986	25.7
Mexico	WFS 1976/77	13.5
	DHS 1987	13.3
Peru	WFS 1977/78	14.7
	DHS 1986	19.5
Trinidad & Tobago	WFS 1977	22.6
	DHS 1987	28.6

8 Conclusions

Results of this comparative analysis of the demographic characteristics of households in 25 countries indicate that medium-size households (three to five members) predominate in Asia and Latin America, in part due to low fertility. Large households with six or more members are most common in North Africa and parts of sub-Saharan Africa. Small households with one or two members are also prevalent in sub-Saharan Africa (compared with other regions), indicating that small households are more common than previously was thought.

A comparison of the WFS and DHS-I data in eight countries shows that there has been a substantial decline in the mean household size, ranging from 0.1 in Ghana to 1.4 in Thailand. In most countries, the magnitude of the decline is about the same in urban and rural areas.

With respect to age-sex structure, the distribution of the household population in countries in sub-Saharan Africa conforms to the pattern characteristic of high fertility populations, with the largest proportion of the population in the 0-4 age group, at the base of the population pyramid. Asian countries, which have the lowest fertility levels, have smaller population bases. Thus, while approximately 50 percent of the household population in sub-Saharan Africa is under 15 years of age, the rate is only about 34 percent in Asia.

Results also indicate that the traditional image of the male-headed household is losing ground in many countries. A high proportion of female-headed households (between 20 and 45 percent) is found in such varied countries as Botswana, Dominican Republic, Ghana, Kenya, Peru, Thailand, Togo, Trinidad and Tobago, Uganda, and Zimbabwe. A comparison of the WFS and DHS data in 10 countries indicates that there has been an increase in the proportion of female-headed households in 7 of the countries, ranging from 5 percent in Colombia to 50 percent in Morocco.

The potential use of DHS household data for further analysis is substantial. These data can be used in conjunction with the individual data to examine relationships between household structure and fertility behavior (see Caldwell et al., 1982), and changes in household structure between the WFS to the DHS surveys can be explored in selected countries. Analysis of the determinants of child morbidity and mortality can also benefit from the integration of household data. Because of the diversity of household structures across countries, regional or country-specific analyses will probably have greater explanatory power than the broad comparative assessments presented here.

References

- Bruce, Judith. and Cynthia B. Lloyd. 1992. *Finding the Ties that Bind: Beyond Headship and Household*. Working Papers No. 41. New York: The Population Council.
- Burch, Thomas K. 1980. The Index of Overall Headship: A Simple Measure of Household Complexity Standardized for Age and Sex. *Demography* 17(1):25-37.
- Caldwell, John C., George Immerwahr, and Lado T. Ruzicka. 1982. *Illustrative Analysis: Family Structure and Fertility*. WFS Scientific Reports No. 39. Voorburg, Netherlands: International Statistical Institute.
- Charbit, Yves. 1984. *Caribbean Family Structure: Past Research and Recent Evidence from the WFS on Matrilocality*. WFS Scientific Reports No. 65. Voorburg, Netherlands: International Statistical Institute.
- Chayovan, Napaporn, Peerasit Kamnuansilpa, and John Knodel. 1988. *Thailand Demographic and Health Survey 1987*. Bangkok, Thailand: Institute of Population Studies, Chulalongkorn University and Institute for Resource Development/Westinghouse.
- De Vos, Susan. 1987. Latin American Households in Comparative Perspective. *Population Studies* 41(3):501-517.
- Ekouevi, Koffi., Mohamed Ayad, Bernard Barrère, and David C. Cantor. 1991. Household Structure from a Comparative Perspective. In *Proceedings of the Demographic and Health Surveys World Conference, Washington D.C., 1991*. Vol. 3, 1547-1576. Columbia Maryland: IRD/Macro International Inc.
- Institute for Resource Development. 1987a. *Interviewer's Manual for Use With Model "B" Questionnaire for Low Contraceptive Prevalence Countries*. DHS-I Basic Documentation No. 6. Columbia, Maryland.
- Institute for Resource Development. 1987b. *Sampling Manual*. DHS-I Basic Documentation No. 8. Columbia, Maryland.
- Institute for Resource Development. 1990. *An Assessment of DHS-I Data Quality*. DHS Methodological Reports No. 1 Columbia, Maryland: Institute for Resource Development/Macro Systems Inc.
- Kabir, Mohammad. 1980. *The Demographic Characteristics of Household Populations*. WFS Comparative Studies No. 6. Voorburg, Netherlands: International Statistical Institute.
- Kossoudji, Sherrie and Eva Mueller. 1983. The Economic and Demographic Status of Female-headed Households in Rural Botswana. *Economic Development and Cultural Change* 31(4): 831-859.
- Landers, Alynne and Melissa McNiff. 1994. *Comparability of Questionnaires*. DHS Methodological Reports No. 4. Calverton, Maryland: Macro International Inc.
- Lloyd, Cynthia B. and Anastasia J. Gage-Brandon. 1993. Women's Role in Maintaining Households: Family Welfare and Sexual Inequality in Ghana. *Population Studies* 47:115-131.
- McDonald, Peter. 1985. Social Organization and Nuptiality in Developing Societies. In *Reproductive Change in Developing Countries: Insights from the World Fertility Survey*, ed. John Cleland and John Hobcraft, 87-114. Oxford: Oxford University Press.
- Russell, S.S., K. Jacobsen, and W.D. Stanley. 1990. *International Migration and Development in Sub-Saharan Africa*. Vol. 2. *Country Analyses*. World Bank Discussion Papers No. 102. Africa Technical Department Series. Washington, D.C.: The World Bank.
- Rutenberg, Naomi and Ian Diamond. 1993. Fertility in Botswana: The Recent Decline and Future Prospects. *Demography* 30(2): 143-157.
- Rutstein, Shea Oscar and George T. Bicego. 1990. Assessment of the Quality of Data Used to Ascertain Eligibility and Age in the Demographic and Health Surveys. In *An Assessment of DHS-I Data Quality*. DHS Methodological Reports No.1. Columbia, Maryland: Institute for Resource Development/Macro Systems, Inc.
- Shryock, Henry S. and Jacob S. Siegel. 1976. *The Methods and Material of Demography*. Condensed edition ed. by Edward G. Stockwell. Studies in Population. San Diego, California: Academic Press.
- Singh, Susheela. 1980. *Comparability of Questionnaires*. WFS Comparative Studies No. 2. Voorburg, Netherlands: International Statistical Institute.
- United Nations. 1973. *The Determinants and Consequences of Population Trends*. New York: United Nations.
- United Nations. 1990. *World Population Monitoring 1989. Special Report. The Population Situation in the Least Developed Countries*. Population Studies No. 113. New York: United Nations.
- Zoughlami, Younès and Diana Allsopp. 1985. *The Demographic Characteristics of Household Populations*. Revised edition. WFS Comparative Studies No. 45. Voorburg, Netherlands: International Statistical Institute.

Appendix A

Distribution of the household population by age and sex

Table A.1 Distribution of the household population by age and sex

Percent distribution of the household population by age group, according to sex, Demographic and Health Surveys, 1986-1990

Country	Age group															De facto Total popula- percent tion		
	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69		70+	
SUB-SAHARAN AFRICA																		
Botswana	3.4	12.8	16.4	15.5	9.8	7.9	7.0	5.5	4.2	3.1	2.5	2.8	2.2	2.0	1.8	3.3	100.0	21331
Male	3.6	13.2	17.3	15.3	10.8	7.4	6.1	5.2	4.2	3.4	2.8	1.8	2.1	2.0	1.6	3.0	100.0	9935
Female	3.2	11.7	15.6	15.7	8.9	8.4	7.8	5.8	4.2	2.8	2.2	3.6	2.3	2.1	1.9	3.6	100.0	11331
Burundi	4.3	14.6	16.1	12.2	8.7	7.8	8.0	6.1	4.8	2.9	2.6	3.3	2.4	1.7	1.8	2.5	100.0	20202
Male	4.5	14.9	16.5	11.9	10.1	7.7	7.8	6.0	4.5	3.2	2.5	2.4	2.1	1.5	1.8	2.7	100.0	9973
Female	4.0	14.2	15.8	12.6	7.4	7.8	8.2	6.3	5.0	2.7	2.8	4.2	2.7	1.9	1.9	2.4	100.0	10230
Ghana	3.7	14.9	16.7	13.1	9.0	7.3	7.4	5.8	4.6	3.5	3.3	3.0	1.9	1.9	1.3	2.5	100.0	21283
Male	3.8	15.3	17.8	13.7	10.0	6.4	6.7	5.6	4.3	3.5	3.3	2.4	1.8	1.8	1.2	2.5	100.0	10419
Female	3.5	14.5	15.7	12.6	8.0	8.2	8.1	6.1	4.9	3.5	3.3	3.6	1.9	2.1	1.3	2.6	100.0	10864
Kenya	3.4	14.2	18.0	16.9	9.5	6.6	6.4	4.8	4.1	3.2	2.6	3.1	2.0	1.8	1.2	2.1	100.0	42759
Male	3.4	14.3	18.1	16.4	11.2	6.6	5.9	4.5	3.9	3.1	2.9	2.4	1.9	1.8	1.3	2.3	100.0	21313
Female	3.5	14.1	17.9	17.4	7.8	6.7	6.8	5.0	4.4	3.3	2.2	3.8	2.1	1.8	1.1	1.9	100.0	21446
Liberia	5.0	13.0	15.0	12.5	9.4	7.6	7.8	5.5	5.1	3.4	3.3	4.1	2.4	1.9	2.0	1.9	100.0	25173
Male	5.1	13.4	14.9	12.5	9.6	7.0	7.0	5.8	5.2	4.0	3.7	3.1	2.2	2.0	2.3	2.1	100.0	12594
Female	4.9	12.6	15.1	12.5	9.2	8.2	8.7	5.2	5.0	2.7	3.0	5.0	2.6	1.9	1.7	1.6	100.0	12579
Mali	5.4	14.5	17.0	13.1	7.6	5.9	6.2	5.4	4.6	4.0	3.6	3.6	2.9	2.3	1.8	2.0	100.0	15208
Male	5.5	15.4	17.9	14.0	8.6	5.0	4.4	4.4	3.9	4.1	3.9	3.2	3.1	2.7	2.0	2.0	100.0	7402
Female	5.2	13.6	16.3	12.2	6.7	6.8	8.0	6.4	5.3	4.0	3.4	4.0	2.8	2.0	1.5	1.9	100.0	7806
Senegal	4.0	14.4	16.3	12.2	9.9	7.7	7.1	5.6	4.6	3.0	2.8	3.4	2.7	2.0	1.5	2.7	100.0	29030
Male	4.0	14.8	17.0	12.5	10.4	7.0	6.6	5.2	4.6	3.1	3.1	2.6	2.5	2.0	1.7	2.9	100.0	13910
Female	3.9	14.0	15.7	11.9	9.5	8.4	7.6	5.9	4.6	3.0	2.6	4.2	2.8	2.0	1.3	2.6	100.0	15120
Sudan (North)	3.0	11.3	14.9	13.5	11.5	9.5	8.1	5.2	5.2	3.5	3.0	2.7	2.5	2.1	1.3	2.5	100.0	43696
Male	3.1	11.5	14.8	13.5	11.1	9.2	7.4	5.3	5.1	3.9	3.6	2.5	2.1	2.3	1.6	2.9	100.0	21865
Female	3.0	11.2	14.9	13.4	11.9	9.8	8.8	5.2	5.3	3.1	2.5	2.9	2.9	1.9	1.0	2.1	100.0	21831
Togo	3.7	13.6	17.4	14.3	9.7	7.8	6.7	4.9	4.1	2.9	2.6	3.4	2.6	2.0	1.7	2.8	100.0	17439
Male	3.7	14.2	18.5	14.5	11.1	8.0	6.2	4.2	3.9	2.7	2.4	2.1	2.1	1.9	1.6	2.7	100.0	8542
Female	3.6	13.0	16.4	14.1	8.2	7.5	7.1	5.5	4.2	3.1	2.7	4.5	3.1	2.2	1.7	3.0	100.0	8897
Uganda	4.3	16.0	16.7	13.7	9.7	7.6	7.2	5.2	4.0	3.0	2.7	2.7	1.9	1.9	1.2	2.3	100.0	23168
Male	4.2	16.4	17.0	13.7	9.2	6.5	6.8	5.0	4.3	3.5	3.3	2.3	1.8	1.8	1.5	2.7	100.0	11250
Female	4.4	15.6	16.4	13.8	10.2	8.6	7.5	5.3	3.7	2.6	2.2	3.1	2.0	2.0	0.9	1.9	100.0	11918
Zimbabwe	2.9	13.1	17.5	14.6	11.5	8.0	6.4	5.2	4.2	3.1	2.9	2.9	2.4	1.7	1.4	2.2	100.0	21307
Male	3.0	13.3	17.6	14.9	12.5	7.6	5.8	4.8	3.9	3.2	3.0	2.7	2.3	1.8	1.5	2.0	100.0	10514
Female	2.8	12.9	17.4	14.4	10.5	8.4	6.9	5.6	4.4	2.9	2.8	3.2	2.5	1.6	1.4	2.4	100.0	10793

Table A.1-Continued

Country	Age group																De facto Total popula- percent tion	
	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+		
NEAR EAST/ NORTH AFRICA																		
Egypt	3.1	12.2	13.3	12.6	10.8	8.6	7.0	5.8	5.7	4.6	3.9	3.2	2.9	2.6	1.7	2.0	100.0	54298
Male	3.3	12.4	13.8	13.0	11.4	8.1	6.7	5.4	5.3	4.5	3.8	3.0	2.9	2.6	1.9	2.0	100.0	27172
Female	2.9	11.9	12.9	12.2	10.2	9.0	7.3	6.2	6.2	4.6	4.0	3.4	2.9	2.6	1.6	2.1	100.0	27126
Morocco	2.9	10.9	14.3	13.3	11.5	9.0	7.6	6.1	4.6	3.4	3.4	3.4	2.9	2.4	1.6	2.8	100.0	41477
Male	2.8	11.3	15.0	13.8	11.4	8.9	7.0	6.0	4.4	3.3	3.2	3.0	2.7	2.5	1.9	2.9	100.0	20425
Female	3.0	10.5	13.6	12.8	11.5	9.2	8.2	6.2	4.7	3.4	3.7	3.7	3.0	2.4	1.4	2.6	100.0	21052
Tunisia	2.8	11.2	13.4	12.2	10.6	9.7	7.5	6.6	5.0	3.7	3.2	3.8	2.9	2.7	1.7	3.2	100.0	31377
Male	2.8	11.5	13.7	12.5	10.4	9.3	7.2	6.4	4.8	3.4	3.4	3.5	2.9	2.6	1.8	3.6	100.0	15538
Female	2.7	11.0	13.0	11.9	10.8	10.1	7.9	6.8	5.2	3.9	2.9	4.0	2.8	2.8	1.6	2.7	100.0	15839
ASIA																		
Indonesia	2.2	9.1	13.0	12.6	11.0	8.9	8.2	6.7	5.6	4.4	4.5	4.1	3.1	2.6	1.5	2.4	100.0	67839
Male	2.5	9.6	13.3	12.7	11.0	8.3	7.9	6.8	5.9	4.4	4.4	3.8	3.0	2.6	1.5	2.2	100.0	33553
Female	1.9	8.7	12.8	12.4	10.9	9.5	8.4	6.7	5.3	4.4	4.6	4.4	3.3	2.7	1.5	2.5	100.0	34286
Sri Lanka	2.0	8.3	12.1	11.4	10.5	9.3	8.3	7.2	6.6	5.0	3.9	4.0	3.3	2.4	2.2	3.4	100.0	38703
Male	2.1	8.6	12.5	11.7	10.4	9.0	8.1	7.1	6.4	4.9	4.2	3.6	3.3	2.6	2.1	3.5	100.0	19205
Female	1.8	7.9	11.7	11.2	10.7	9.7	8.4	7.4	6.8	5.1	3.6	4.5	3.3	2.3	2.3	3.2	100.0	19498
Thailand	1.7	7.3	10.9	12.5	11.7	9.8	8.1	7.7	6.2	4.7	4.4	4.1	3.1	2.7	1.7	3.3	100.0	40946
Male	1.8	7.7	11.5	13.2	12.2	9.4	8.1	7.3	6.0	4.5	4.4	3.9	3.1	2.6	1.7	2.7	100.0	19703
Female	1.5	7.0	10.2	11.9	11.2	10.2	8.2	8.1	6.5	5.0	4.4	4.3	3.1	2.9	1.7	3.8	100.0	21243
LATIN AMERICA/ CARIBBEAN																		
Bolivia	2.9	11.6	15.3	13.4	9.3	7.3	6.8	6.1	5.9	4.5	3.9	3.3	2.8	2.5	1.7	2.9	100.0	37404
Male	3.0	11.6	15.8	13.5	9.3	7.2	6.1	6.2	5.7	4.7	4.0	3.1	2.5	2.5	1.5	3.1	100.0	18502
Female	2.9	11.5	14.7	13.3	9.3	7.3	7.4	6.1	6.0	4.2	3.8	3.4	3.1	2.4	1.9	2.6	100.0	18902
Colombia	0.2	11.2	14.1	11.9	11.3	10.4	8.1	6.7	5.7	4.1	3.7	3.4	3.0	2.2	1.6	2.3	100.0	21623
Male	0.3	11.7	14.6	12.6	11.0	10.1	7.6	6.4	5.5	4.1	3.6	3.3	2.9	2.4	1.7	2.4	100.0	10689
Female	0.2	10.6	13.6	11.3	11.7	10.8	8.6	6.9	6.0	4.0	3.7	3.6	3.1	2.0	1.5	2.3	100.0	10934
Dominican Republic	2.6	10.7	13.4	12.9	12.4	10.5	7.6	6.1	4.9	3.9	3.3	3.3	2.2	2.2	1.2	2.8	100.0	34675
Male	2.5	10.7	13.9	13.2	12.1	10.2	7.3	6.1	4.9	4.1	3.1	3.2	2.2	2.4	1.3	2.8	100.0	17244
Female	2.7	10.6	12.8	12.7	12.7	10.7	7.9	6.2	4.9	3.8	3.4	3.4	2.3	2.1	1.1	2.8	100.0	17432
Ecuador	2.8	10.9	14.3	13.1	10.2	8.9	7.4	6.3	5.3	3.8	3.2	4.2	2.6	2.3	1.4	3.2	100.0	22191
Male	2.9	11.3	14.5	13.0	10.4	9.0	6.9	6.3	5.2	3.8	3.5	3.4	2.6	2.4	1.3	3.2	100.0	11169
Female	2.7	10.5	14.0	13.3	10.0	8.8	8.0	6.3	5.4	3.8	2.8	4.9	2.5	2.2	1.5	3.2	100.0	11022
Guatemala	3.5	12.9	16.2	13.6	9.8	7.7	6.7	5.5	5.1	3.7	4.0	3.1	2.4	2.1	1.5	2.1	100.0	28288
Male	3.5	13.0	16.6	13.8	10.4	7.7	6.2	5.2	4.9	3.8	3.6	2.9	2.4	2.1	1.5	2.2	100.0	14126
Female	3.4	12.9	15.7	13.5	9.2	7.7	7.3	5.9	5.4	3.7	4.4	3.3	2.3	2.0	1.5	1.9	100.0	14162
Mexico	2.8	10.7	13.7	13.9	11.5	8.9	7.7	6.2	5.3	4.2	3.4	3.2	2.4	2.0	1.4	2.5	100.0	39755
Male	2.9	10.9	13.9	14.0	11.8	9.1	7.3	6.1	5.3	4.1	3.5	3.0	2.2	1.9	1.4	2.4	100.0	19579
Female	2.7	10.5	13.4	13.8	11.2	8.6	8.1	6.4	5.4	4.3	3.3	3.3	2.7	2.0	1.4	2.6	100.0	20176
Peru	2.6	10.6	14.2	13.8	10.7	8.8	7.2	6.0	5.2	4.4	3.7	3.6	2.7	2.2	1.6	2.7	100.0	23067
Male	2.7	10.9	14.4	13.7	11.2	8.7	6.9	5.7	5.1	4.3	3.7	3.5	2.6	2.3	1.4	2.6	100.0	11558
Female	2.5	10.4	14.0	13.9	10.1	8.9	7.4	6.2	5.3	4.4	3.6	3.8	2.7	2.1	1.8	2.9	100.0	11509
Trinidad & Tobago	2.2	9.7	11.6	10.0	9.2	10.1	9.5	7.2	5.8	4.5	3.8	4.1	3.0	2.9	2.6	3.7	100.0	17498
Male	2.3	9.5	11.7	10.0	9.5	10.6	9.3	7.5	6.2	4.4	4.0	3.6	2.8	2.9	2.3	3.5	100.0	8867
Female	2.1	10.0	11.4	10.0	8.9	9.6	9.6	6.9	5.5	4.7	3.5	4.7	3.2	2.9	3.0	4.0	100.0	8631

Household size by Urban-Rural Residence

Table A.2 Household size by urban-rural residence

Percent distribution of households by household size, according to urban-rural residence, Demographic and Health Surveys, 1986-1990

Country	Household size															Total percent	No. of house- holds
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
SUB-SAHARAN AFRICA																	
Botswana	15.6	13.7	12.4	12.1	10.2	9.7	7.7	5.7	4.2	2.8	2.2	1.3	0.9	0.6	1.0	100.0	4473
Urban	20.4	18.8	14.5	12.1	8.8	6.7	6.0	4.4	2.6	2.3	1.1	0.7	0.7	0.1	0.8	100.0	1253
Rural	13.7	11.8	11.5	12.1	10.8	10.8	8.3	6.1	4.8	3.0	2.6	1.6	1.0	0.7	1.1	100.0	3220
Burundi	5.8	9.6	13.3	14.6	15.1	13.6	9.9	7.4	4.3	2.3	1.8	0.7	0.4	0.3	0.9	100.0	3864
Urban	12.5	16.6	13.0	13.0	12.5	9.2	7.1	6.1	3.2	2.9	1.6	1.2	0.6	0.1	0.6	100.0	168
Rural	5.5	9.2	13.3	14.7	15.2	13.8	10.0	7.4	4.3	2.2	1.8	0.7	0.4	0.3	0.9	100.0	3696
Ghana	15.0	10.6	12.1	13.0	12.3	10.9	8.4	6.3	4.2	2.2	1.6	1.0	0.8	0.3	1.2	100.0	4406
Urban	21.6	11.5	13.0	11.7	10.7	10.8	6.4	5.1	3.9	1.6	1.2	0.9	0.5	0.1	1.1	100.0	1528
Rural	11.5	10.2	11.7	13.7	13.2	11.0	9.5	6.9	4.4	2.5	1.8	1.1	0.9	0.4	1.2	100.0	2878
Kenya	15.3	9.1	9.1	11.5	11.7	10.6	9.6	7.8	5.3	4.0	1.9	1.3	0.8	0.6	1.4	100.0	8173
Urban	30.2	16.0	12.9	12.7	9.2	6.4	4.6	3.9	1.5	1.0	0.5	0.4	0.2	0.2	0.3	100.0	1789
Rural	11.1	7.1	8.1	11.2	12.4	11.7	11.0	8.9	6.3	4.8	2.3	1.6	1.0	0.8	1.7	100.0	6384
Liberia	14.9	12.8	12.9	12.6	10.9	9.0	6.6	5.2	3.4	3.0	2.4	1.7	1.2	1.1	2.4	100.0	5023
Urban	18.7	13.6	13.3	12.3	10.1	8.1	6.1	4.3	3.5	2.6	2.3	1.4	1.0	1.3	1.6	100.0	2212
Rural	11.9	12.1	12.6	12.9	11.5	9.8	6.9	5.9	3.3	3.2	2.6	2.0	1.4	0.9	3.0	100.0	2811
Mali	8.8	12.4	15.9	15.5	11.9	9.3	7.7	5.5	4.0	2.4	2.0	1.9	0.9	0.5	1.2	100.0	3048
Urban	10.7	10.0	14.4	13.4	12.8	8.5	7.9	5.6	4.5	2.8	2.7	1.8	1.6	1.0	2.3	100.0	742
Rural	8.2	13.2	16.4	16.3	11.6	9.5	7.6	5.4	3.9	2.3	1.8	1.9	0.7	0.3	0.9	100.0	2306
Senegal	11.4	6.8	7.5	8.0	8.1	8.6	7.4	6.6	5.3	5.4	4.2	3.3	2.4	2.6	12.3	100.0	3736
Urban	16.7	8.1	8.5	7.5	7.2	8.9	6.6	5.8	4.2	4.3	4.1	3.2	2.3	1.8	10.9	100.0	1544
Rural	7.7	5.9	6.8	8.4	8.7	8.4	7.9	7.3	6.0	6.2	4.3	3.3	2.5	3.1	13.4	100.0	2192
Sudan (North)	4.4	7.1	9.6	10.9	11.9	11.6	11.2	9.7	6.9	5.6	3.9	2.7	1.6	0.8	2.0	100.0	6891
Urban	3.7	4.8	7.3	9.0	10.4	11.2	10.8	10.0	7.5	8.0	5.2	4.2	2.1	1.4	4.1	100.0	2451
Rural	4.7	8.5	10.8	12.0	12.8	11.8	11.3	9.5	6.7	4.3	3.1	1.8	1.4	0.5	0.9	100.0	4440
Togo	14.2	12.5	13.0	11.6	11.0	9.7	7.7	5.5	3.6	3.2	2.0	1.2	1.2	1.1	2.3	100.0	3432
Urban	17.5	13.5	12.8	11.4	10.4	8.7	8.3	4.5	3.2	3.0	1.8	1.0	1.0	0.8	1.8	100.0	1084
Rural	12.7	12.0	13.1	11.8	11.3	10.1	7.5	6.0	3.8	3.3	2.0	1.3	1.2	1.3	2.6	100.0	2348
Uganda	16.5	12.3	12.7	13.1	13.1	9.1	7.7	5.6	3.8	2.2	1.2	0.9	0.7	0.4	0.8	100.0	5101
Urban	17.2	15.4	13.2	12.8	11.2	9.6	6.8	5.0	2.4	1.3	1.4	1.1	0.9	1.0	0.6	100.0	497
Rural	16.4	11.9	12.7	13.1	13.3	9.1	7.8	5.7	3.9	2.3	1.1	0.9	0.6	0.3	0.8	100.0	4604
Zimbabwe	11.5	10.0	10.6	12.7	12.1	11.7	9.6	7.5	5.5	3.3	1.9	1.1	0.7	0.7	1.0	100.0	4107
Urban	16.9	14.7	12.8	13.5	11.2	9.3	6.9	5.8	3.4	2.2	1.4	0.9	0.1	0.6	0.3	100.0	1417
Rural	8.7	7.5	9.5	12.3	12.6	12.9	11.0	8.4	6.6	3.9	2.1	1.3	1.0	0.8	1.4	100.0	2690
NEAR EAST/ NORTH AFRICA																	
Egypt	4.9	8.6	10.1	15.3	15.9	13.9	10.9	7.8	4.9	2.7	1.6	0.9	0.6	0.4	1.4	100.0	9805
Urban	5.0	9.6	11.9	18.4	18.7	14.5	9.2	6.0	2.9	1.6	0.7	0.5	0.4	0.1	0.7	100.0	5280
Rural	4.9	7.4	7.9	11.7	12.8	13.3	12.9	10.0	7.2	4.1	2.5	1.4	0.9	0.8	2.3	100.0	4525
Morocco	7.2	8.2	9.3	10.6	11.9	11.9	11.0	8.9	7.5	4.8	3.0	1.8	1.3	1.0	1.7	100.0	6960
Urban	8.9	8.6	11.0	10.9	12.6	11.9	11.1	9.0	6.6	3.7	2.4	1.3	0.8	0.5	0.6	100.0	3252
Rural	5.8	7.8	7.8	10.3	11.3	11.8	11.0	8.8	8.2	5.8	3.4	2.1	1.7	1.5	2.7	100.0	3708
Tunisia	3.5	8.6	10.2	13.3	15.1	15.3	12.4	9.1	5.2	3.7	1.7	0.9	0.4	0.2	0.4	100.0	5645
Urban	3.2	8.9	10.6	14.9	16.0	15.9	12.2	7.9	4.5	2.9	1.5	0.6	0.3	0.2	0.4	100.0	3324
Rural	4.0	8.1	9.6	11.1	13.8	14.4	12.6	10.6	6.2	4.7	2.1	1.3	0.6	0.3	0.3	100.0	2321

Table A.2—Continued

Country	Household size															Total percent	No. of households
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
ASIA																	
Indonesia ¹	5.3	10.1	15.4	18.2	17.0	13.4	8.7	5.2	3.2	1.5	0.9	0.5	0.2	0.1	0.2	100.0	14142
Urban	5.7	10.0	11.7	16.0	16.4	14.0	10.1	6.6	3.9	2.2	1.6	0.9	0.3	0.3	0.4	100.0	4943
Rural	5.1	10.2	17.4	19.3	17.4	13.1	8.0	4.5	2.9	1.1	0.5	0.2	0.1	0.1	0.1	100.0	9199
Sri Lanka	3.3	7.2	13.4	18.8	20.0	14.7	10.1	5.5	3.2	1.8	1.3	0.4	0.1	0.2	0.1	100.0	7669
Urban	2.2	7.4	13.1	16.9	19.1	15.2	10.8	5.8	3.7	2.3	2.0	0.5	0.4	0.5	0.2	100.0	1251
Rural	3.5	7.2	13.5	19.2	20.1	14.6	9.9	5.5	3.1	1.7	1.1	0.3	0.1	0.1	0.1	100.0	6418
Thailand	4.9	10.4	17.0	21.7	17.7	12.2	7.1	4.2	2.3	1.1	0.8	0.3	0.2	0.1	0.1	100.0	9045
Urban	8.5	14.4	18.4	17.9	15.2	9.4	6.4	3.7	2.3	1.1	0.8	0.7	0.4	0.3	0.5	100.0	1664
Rural	4.1	9.5	16.6	22.5	18.2	12.8	7.3	4.3	2.2	1.1	0.8	0.3	0.1	0.1	0.0	100.0	7381
LATIN AMERICA/ CARIBBEAN																	
Bolivia	9.2	12.2	14.3	18.0	15.3	12.4	8.4	5.3	2.4	1.5	0.7	0.2	0.2	0.0	0.1	100.0	8439
Urban	7.8	10.1	14.3	18.6	17.1	13.2	8.6	5.1	2.4	1.5	0.7	0.3	0.3	0.0	0.1	100.0	4618
Rural	11.0	14.8	14.2	17.2	13.1	11.4	8.0	5.5	2.4	1.4	0.7	0.2	0.0	0.0	0.0	100.0	3821
Colombia	5.1	8.9	14.1	18.2	16.7	12.8	8.4	6.0	3.8	2.5	1.3	0.9	0.5	0.2	0.6	100.0	4273
Urban	4.9	8.8	15.2	19.5	17.5	12.4	8.2	5.6	3.2	1.9	1.0	0.8	0.4	0.2	0.5	100.0	2894
Rural	5.7	9.1	11.7	15.5	15.1	13.5	9.0	6.9	5.1	3.8	1.7	1.2	0.7	0.3	0.7	100.0	1379
Dominican Republic	8.5	12.0	13.1	14.5	15.3	11.7	9.0	6.1	3.9	2.3	1.7	0.9	0.3	0.2	0.4	100.0	7142
Urban	8.2	12.1	13.1	14.7	16.6	12.2	8.6	5.8	3.3	1.9	1.5	0.9	0.4	0.2	0.5	100.0	4177
Rural	9.0	11.8	13.1	14.2	13.5	11.0	9.7	6.5	4.8	2.9	2.0	0.9	0.2	0.2	0.2	100.0	2965
Ecuador	6.4	10.6	14.0	16.6	16.4	13.6	8.1	5.6	3.4	2.6	1.1	0.8	0.4	0.1	0.4	100.0	4578
Urban	5.9	10.2	15.6	18.1	17.7	12.9	6.7	5.0	3.0	2.5	1.1	0.7	0.3	0.2	0.2	100.0	2444
Rural	6.9	11.1	12.3	14.8	14.9	14.3	9.7	6.2	3.9	2.7	1.1	0.9	0.5	0.0	0.6	100.0	2134
Guatemala	5.0	8.2	13.3	15.1	16.6	14.2	10.7	6.8	4.5	2.3	1.6	0.6	0.5	0.2	0.3	100.0	5459
Urban	5.6	8.8	14.8	16.8	18.4	13.2	9.9	5.2	3.1	1.6	1.3	0.3	0.5	0.1	0.4	100.0	1919
Rural	4.7	7.9	12.5	14.2	15.7	14.8	11.1	7.7	5.3	2.6	1.7	0.9	0.5	0.2	0.2	100.0	3540
Mexico	4.6	10.5	13.3	17.5	15.7	12.9	9.8	5.5	4.2	2.3	1.5	0.9	0.6	0.2	0.5	100.0	7786
Urban	5.0	10.8	14.1	19.7	15.9	12.5	8.4	4.9	3.2	1.8	1.3	0.8	0.6	0.2	0.6	100.0	5537
Rural	3.5	9.6	11.2	12.0	15.3	13.9	13.3	6.9	6.7	3.4	1.9	1.2	0.6	0.2	0.3	100.0	2249
Peru	6.5	9.9	11.7	15.8	15.9	12.9	10.5	7.1	3.6	2.6	1.6	0.8	0.5	0.3	0.2	100.0	4497
Urban	6.1	8.8	11.7	17.0	17.7	13.3	9.6	6.8	3.3	2.3	1.4	0.9	0.7	0.3	0.3	100.0	2761
Rural	7.3	11.5	11.9	14.0	13.0	12.3	11.9	7.6	4.0	3.2	2.0	0.6	0.3	0.3	0.1	100.0	1736
Trinidad & Tobago	14.4	13.6	13.0	18.0	13.7	10.5	6.7	4.0	2.3	1.3	1.1	0.5	0.2	0.2	0.4	100.0	4122
Urban	16.2	15.4	14.0	18.7	13.0	9.3	5.5	3.7	1.6	1.0	0.9	0.3	0.0	0.2	0.4	100.0	1957
Rural	12.7	12.1	12.1	17.5	14.3	11.6	7.9	4.3	3.0	1.5	1.2	0.8	0.5	0.2	0.3	100.0	2165

¹Based on de jure population

Appendix B

Summary of DHS-I and DHS-II Surveys, 1985-1993

Region and Country	Date of Fieldwork	Implementing Organization	Respondents	Sample Size	Male/Husband Survey	Supplemental Studies, Modules, and Additional Questions
SUB-SAHARAN AFRICA						
DHS-I						
Botswana	Aug-Dec 1988	Central Statistics Office	AW 15-49	4,368		AIDS, PC, adolescent fertility
Burundi	Apr-Jul 1987	Département de la Population, Ministère de l'Intérieur	AW 15-49	3,970	542 Husbands	CA, SAI, adult mortality
Ghana	Feb-May 1988	Ghana Statistical Service	AW 15-49	4,488	943 Husbands	CA, SM, WE
Kenya	Dec-May 1988/89	National Council for Population and Development	AW 15-49	7,150	1,133 Husbands	
Liberia	Feb-Jul 1986	Bureau of Statistics, Ministry of Planning and Economic Affairs	AW 15-49	5,239		TBH, employment status
Mali	Mar-Aug 1987	Institut du Sahel, USED/CERPOD	AW 15-49	3,200	970 Men 20-55	CA, VC, childhood physical handicaps
Ondo State, Nigeria	Sep-Jan 1986/87	Ministry of Health, Ondo State	AW 15-49	4,213		CA, TBH
Senegal	Apr-Jul 1986	Direction de la Statistique, Ministère de l'Economie et des Finances	AW 15-49	4,415		CA, CD
Sudan	Nov-May 1989/90	Department of Statistics, Ministry of Economic and National Planning	EMW 15-49	5,860		M, MM, female circumcision, family planning services
Togo	Jun-Nov 1988	Unité de Recherche Démographique, Université du Bénin	AW 15-49	3,360		CA, SAI, marriage history
Uganda	Sep-Feb 1988/89	Ministry of Health	AW 15-49	4,730		CA, SAI
Zimbabwe	Sep-Jan 1988/89	Central Statistical Office	AW 15-49	4,201		AIDS, CA, PC, SAI, WE
DHS-II						
Burkina Faso	Dec-Mar 1992/93	Institut National de la Statistique et de la Démographie	AW 15-49	6,000	1,845 Men 18+	AIDS, CA, MA, SAI
Cameroon	Apr-Sep 1991	Direction Nationale du Deuxième Recensement Général de la Population et de l'Habitat	AW 15-49	3,871	814 Husbands	CA, CD, SAI
Madagascar	May-Nov 1992	Centre National de Recherches sur l'Environnement	AW 15-49	6,260		CA, MM, SAI
Malawi	Sep-Nov 1992	National Statistical Office	AW 15-49	4,850	1,151 Men 20-54	AIDS, CA, MA, MM, SAI
Namibia	Jul-Nov 1992	Ministry of Health and Social Services, Central Statistical Office	AW 15-49	5,421		CA, CD, MA, MM
Niger	Mar-Jun 1992	Direction de la Statistique et des Comptes Nationaux	AW 15-49	6,503	1,570 Husbands	CA, MA, MM, SAI
Nigeria	Apr-Oct 1990	Federal Office of Statistics	AW 15-49	8,781		CA, SAI
Rwanda	Jun-Oct 1992	Office National de la Population	AW 15-49	6,551	598 Husbands	CA, SAI
Senegal	Nov-Aug 1992/93	Direction de la Prévision et de la Statistique	AW 15-49	6,310	1,436 Men 20+	AIDS, CA, MA, MM, SAI
Tanzania	Oct-Mar 1991/92	Bureau of Statistics, Planning Commission	AW 15-49	9,238	2,114 Men 15-60	AIDS, CA, MA, SAI
Zambia	Jan-May 1992	University of Zambia	AW 15-49	7,060		AIDS, CA, MA
NEAR EAST/NORTH AFRICA						
DHS-I						
Egypt	Oct-Jan 1988/89	National Population Council	EMW 15-49	8,911		CA, CD, MM, PC, SAI, WE, women's status
Morocco	May-Jul 1987	Ministère de la Santé Publique	EMW 15-49	5,982		CA, CD, S
Tunisia	Jun-Oct 1988	Office National de la Famille et de la Population	EMW 15-49	4,184		CA, CD, S, SAI
DHS-II						
Egypt	Nov-Dec 1992	National Population Council	EMW 15-49	9,864	2,406 Husbands	CA, MA, PC, SM
Jordan	Oct-Dec 1990	Department of Statistics, Ministry of Health	EMW 15-49	6,462		CA, SAI
Morocco	Jan-Apr 1992	Ministère de la Santé Publique	AW 15-49	9,256	1,336 Men 20-70	CA, MA, MM, SAI
Yemen	Nov-Jan 1991/92	Central Statistical Organization	EMW 15-49	5,687		CA, CD, SAI

Region and Country	Date of Fieldwork	Implementing Organization	Respondents	Sample Size	Male/Husband Survey	Supplemental Studies, Modules, and Additional Questions
ASIA						
DHS-I						
Indonesia	Sep-Dec 1987	Central Bureau of Statistics, National Family Planning Coordinating Board	EMW 15-49	11,844		PC, SM
Nepal (In-depth)	Feb-Apr 1987	New Era	CMW 15-49	1,623		KAP-gap survey
Sri Lanka	Jan-Mar 1987	Department of Census and Statistics, Ministry of Plan Implementation	EMW 15-49	5,865		CA, NFP
Thailand	Mar-Jun 1987	Institute of Population Studies, Chulalongkorn University	EMW 15-49	6,775		CA, S, SAI
DHS-II						
Indonesia	May-Jul 1991	Central Bureau of Statistics, National Family Planning Coordinating Board, Ministry of Health	EMW 15-49	22,909		PC, SM
Pakistan	Dec-May 1990/91	National Institute of Population Studies	EMW 15-49	6,611	1,354 Husbands	CA
LATIN AMERICA & CARIBBEAN						
DHS-I						
Bolivia	Mar-Jun 1989	Instituto Nacional de Estadística	AW 15-49	7,923		CA, CD, MM, PC, S, WE
Bolivia (In-depth)	Mar-Jun 1989	Instituto Nacional de Estadística	AW 15-49	7,923		Health
Brazil	May-Aug 1986	Sociedade Civil Bem-Estar Familiar no Brasil	AW 15-44	5,892		CA, PC, SM, abortion, young adult use of contraception
Colombia	Oct-Dec 1986	Corporación Centro Regional de Población, Ministerio de Salud	AW 15-49	5,329		CA, PC, SAI, SM
Dominican Republic	Sep-Dec 1986	Consejo Nacional de Población y Familia	AW 15-49	7,649		NFP, S, SAI, SM family planning communication
Dominican Rep. (Experimental)	Sep-Dec 1986	Consejo Nacional de Población y Familia	AW 15-49	3,885		
Ecuador	Jan-Mar 1987	Centro de Estudios de Población y Paternidad Responsable	AW 15-49	4,713		CD, SAI, employment
El Salvador	May-Jun 1985	Asociación Demográfica Salvadoreña	AW 15-49	5,207		S, TBH
Guatemala	Oct-Dec 1987	Instituto de Nutrición de Centro América y Panamá	AW 15-44	5,160		S, SAI
Mexico	Feb-May 1987	Dirección General de Planificación Familiar Secretaría de Salud	AW 15-49	9,310		NFP, S, employment
Peru	Sep-Dec 1986	Instituto Nacional de Estadística	AW 15-49	4,999		NFP, employment, cost of family planning
Peru (Experimental)	Sep-Dec 1986	Instituto Nacional de Estadística	AW 15-49	2,534		
Trinidad and Tobago	May-Aug 1987	Family Planning Association of Trinidad and Tobago	AW 15-49	3,806		CA, NFP, breastfeeding
DHS-II						
Brazil (NE)	Sep-Dec 1991	Sociedade Civil Bem-Estar Familiar no Brasil	AW 15-49	6,222	1,266 Husbands	AIDS, PC
Colombia	May-Aug 1990	PROFAMILIA	AW 15-49	8,644		AIDS
Dominican Republic	Jul-Nov 1991	Instituto de Estudios de Población y Desarrollo (PROFAMILIA), Oficina Nacional de Planificación	AW 15-49	7,320		CA, MA, S, SAI
Paraguay	May-Aug 1990	Centro Paraguayo de Estudios de Población	AW 15-49	5,827		CA, SAI
Peru	Oct-Mar 1991/92	Instituto Nacional de Estadística e Informática	AW 15-49	15,882		CA, MA, MM, SAI

AW all women
 CMW currently married women
 EMW ever-married women

AIDS acquired immune deficiency syndrome
 CA child anthropometry
 CD causes of death (verbal reports of symptoms)
 M migration
 MA maternal anthropometry
 MM maternal mortality

NFP natural family planning
 PC pill compliance
 S sterilization
 SAI service availability information
 SM social marketing
 TBH truncated birth history
 VC value of children