



The Household Conditions: Gender Perspectives Analysis of the SSHHS, 2010 Data

National Bureau of Statistics
Juba.
October, 2014

Preface

This is the second report prepared by the National Bureau of Statistics from the South Sudan Household Health Survey that was conducted from the end of March to beginning of May, 2010. The first report looked at the HIV/AIDS awareness and sexual behaviour. The current report looks at the gender differentials and the household conditions. It also assesses the prevalence of domestic violence and the attitude towards the violence.

It is the hope of the Bureau that relevant government institutions and other partners utilize the findings in these reports for their programming.

A handwritten signature in black ink, appearing to read 'Isaiah Chol Aruai', with a large, sweeping flourish at the end.

Isaiah Chol Aruai
Chairperson,
National Bureau of Statistics

Table of Contents

Preface	1
Table of Contents	2
List of Tables	5
List of Figures	6
Abbreviations and Acronyms	7
Indicators for monitoring progress in gender equity.....	8
Executive Summary.....	12
Chapter One.....	18
Introduction	18
1.3 Geography of South Sudan	19
1.4 Economy of South Sudan	19
1.7 The objectives of the study.....	20
1.8 Methodology.....	20
Chapter Two.....	21
Background Characteristics.....	21
2.1 Introduction	21
2.2 State of residence	21
2.3 Marital status of household heads	21
2.4 Age group of household heads	22
2.5 Education of household heads.....	23
2.6 Employment status of the heads of households	23
2.7 Household size	24
Chapter Three	26
Housing Conditions	26
3.1 Introduction	26
3.2 Housing conditions.....	26
3.3 Ownership of household items.....	26
3.6 Housing conditions.....	28
3.6 Energy used for cooking.....	30
3.7 Location of kitchen.....	30
3.8 Number of rooms/tukuls belonging to the households	31
3.9 Number of rooms/tukuls used for sleeping.....	32

3.10 Overcrowding.....	33
Chapter Four	36
Water and Sanitation	36
4.1 Introduction	36
4.2 Water used by the households	36
4.2.1 Treatment of water.....	37
4.3 Toilet facilities.....	39
3.5 Garbage collection	40
Chapter Four	41
Gender Issues.....	41
4.1 Introduction	41
4.2 Female genital mutilation	41
4.2.1 Adolescent marriage	41
4.2.2 Age at first union.....	42
4.2.3 Child bearing in adolescence	42
4.3 Domestic violence	43
4.4 Health seeking behaviour	45
Chapter Six	50
Summary of findings, Conclusions and Recommendations.....	50
6.1 Introduction	50
6.2 Summary of findings	50
6.2.1 Background	50
6.2.2 Female genital mutilation	50
6.2.3 Household conditions	51
6.2.3.1 Housing units	51
6.2.3.2 The kitchens	51
6.2.3.3 Household water.....	52
6.2.3.4 Toilet facilities	52
6.2.4 Gender and adolescence	52
6.2.4.1 Child bearing in adolescence	53
6.2.5 Domestic violence	53
6.2.6 Health seeking behavior	53
6.2.7 Presence of mosquito nets	54

6.3 Conclusions	54
6.4 Recommendations	55
References	56
Appendices.....	57

List of Tables

Table 1: Mean household size by some background variables	25
Table 2: Mean number of rooms/tukuls belonging to the households by some background variables....	32
Table 3: Mean number of rooms/tukuls used for sleeping	33
Table 4: Mean number of persons sleeping in a room/tukul by some background variables	35
Table 5: Percentage distribution of adolescents by marital status by age by sex.....	42
Table 6: Mean number of mosquito nets by some background variables by sex of household head	48

List of Figures

Figure 1: Percentage distribution of household by state and sex of household heads.....	21
Figure 2: Percentage distribution of household heads by marital status.....	22
Figure 3: Percentage distribution of household heads by age group by sex.....	22
Figure 4: Percentage distribution of household heads by highest level of education by sex	23
Figure 5: Percentage distribution of household heads by employment status by sex.....	24
Figure 6: Percentage of households with some household items by sex of household head.....	26
Figure 7: Percentage of households by whether they have some household items by sex of household head	27
Figure 8: Percentage of households by ownership of domestic animals by sex of household head	28
Figure 9: Percentage distribution of households by material for the floor by sex of household head.....	28
Figure 10: Percentage distribution of households by material for the roof by sex of household head.....	29
Figure 11: Percentage distribution of households by type of material for exterior wall by sex of household head	29
Figure 12: Percentage distribution of households by type of fuel used for cooking by sex of household head	30
Figure 13: Percentage distribution of households by location by kitchen by sex of household head	31
Figure 14: Percentage distribution of households by main source of water by sex of household head....	36
Figure 15: Percentage distribution of households by person who usually collects water by sex of head of household	37
Figure 16: Percentage of households by type of water treatment	38
Figure 17: Percentage distribution of households by type of water treatment by sex of head.....	38
Figure 18: Percentage distribution of households by safety of drinking water.....	39
Figure 19: Percentage distribution of households by toilet facility by sex of household head.....	39
Figure 20: Percentage distribution by how garbage is disposed off by sex of head of household	40
Figure 21: Percentage distribution of adolescents by age at first marriage.....	42
Figure 22: Average parity of the adolescents 15-19 by single year of age	43
Figure 23: Percentage of respondents by reasons that justifies wife beating by sex	44
Figure 24: Percentage distribution of respondents by whether wife was beaten by state by sex	45
Figure 25: Percentage distribution of respondents by whether wife was beaten by residence by sex.....	45
Figure 26: Percentage distribution of respondents by prevalence of STIs and treatment by sex.....	46
Figure 27: Percentage distribution of respondents who got infected with STIs	47
Figure 28: Percentage distribution of respondents who sought treatment by state by sex.....	47

Abbreviations and Acronyms

ANOVA	:	Analysis of Variance
CES	:	Central Equatoria State
CPA	:	Comprehensive Peace Agreement
EES	:	Eastern Equatoria State
FGM	:	Female genital mutilation
ICT	:	Information, Communication Technology
JS	:	Jonglei State
LS	:	Lakes State
MoGC&SW	:	Ministry of Gender, Child and Social Welfare
MoH	:	Ministry of Health
MoLA&CD	:	Ministry of Legal Affairs and Constitutional Development
NBGS	:	Northern Bahr el Ghazal State
NBS	:	National Bureau of Statistics
SPLA	:	Sudan People's Liberation Army
SPLM	:	Sudan People's Liberation Movement
SSHHS	:	South Sudan Household Health Survey
STI	:	Sexually Transmitted Infection
VIP	:	Ventilated Improved Pit
WBGS	:	Western Bahr el Ghazal State
WES	:	Western Equatoria State
WS	:	Warrap State
UNS	:	Upper Nile State
US	:	Unity State

Indicators for monitoring progress in gender equity

	Indicators	Males	Females	Unit
	Percentage distribution of households by sex of household heads by state			
	Upper Nile	90.8	9.2	Percent
	Jonglei	85.6	14.4	Percent
	Unity	91.5	8.5	Percent
	Warrap	94.0	6.0	Percent
	Northern Bahr el Ghazal	93.2	6.8	Percent
	Western Bahr el Ghazal	85.5	14.5	Percent
	Lakes	94.2	5.8	Percent
	Western Equatoria	81.9	18.1	Percent
	Central Equatoria	88.8	11.2	Percent
	Eastern Equatoria	89.2	10.8	Percent
	South Sudan	89.5	10.5	Percent
	Percentage distribution of household heads by marital status			
	Never married	71.0	29.0	Percent
	Married	100.0	0.0	Percent
	Widowed	11.1	88.9	Percent
	Divorced	28.2	71.8	Percent
	Separated	26.0	74.0	Percent
	Percentage distribution of household heads by highest level of education attained			
	No education	65.7	87.2	Percent
	Primary	20.7	10.5	Percent
	Secondary	11.9	2.0	Percent
	University	1.7	0.2	Percent
	Percentage distribution of household heads by employment status			
	Paid employment	25.4	8.9	Percent
	Self employed	15.3	11.8	Percent
	Subsistence	26.9	18.5	Percent
	Not working	32.4	44.3	Percent
	Housewife	0.0	16.5	Percent
	Mean household size by sex of head of household	6.1	4.9	Mean
	Percentage of households by ownership of some selected household items			
	Electricity	3.4	2.3	Percent
	Radio	33.0	20.5	Percent
	Television	4.4	2.3	Percent
	Non-mobile phone	4.5	2.0	Percent
	Refrigerator	1.2	0.6	Percent
	Computer	0.8	0.2	Percent
	Internet	0.3	0.2	Percent
	Digital receiver	1.4	0.6	Percent

	Indicator	Males	Females	Unit
	Percentage of households by some household items by sex of household head			
	Watch	33.9	22.8	Percent
	Mobile phone	23.2	16.3	Percent
	Bicycle	28.8	15.8	Percent
	Motor cycle	5.9	2.4	Percent
	Cart	1.9	0.7	Percent
	Vehicle	1.4	0.5	Percent
	Motor boat	0.4	0.2	Percent
	Percentage of households by materials of floor by sex of household head			
	Earth	85.9	86.1	Percent
	Wooden	10.0	10.9	Percent
	Modern	2.4	1.6	Percent
	Other	1.7	1.4	Percent
	Percentage of households by materials of the roof by sex of household head			
	Thatch	69.4	68.0	Percent
	Poor wooden	12.4	12.0	Percent
	Modern	14.3	15.8	Percent
	Other	3.8	4.3	Percent
	Percentage of households by materials of exterior walls by sex of household heads			
	Poor material	21.7	21.7	Percent
	Local material	56.3	53.9	Percent
	Modern	16.1	17.4	Percent
	Other	5.9	7.0	Percent
	Percentage distribution of households by type of fuel used for cooking			
	Modern	0.4	0.3	Percent
	Charcoal	12.7	15.3	Percent
	Wood	83.1	81.5	Percent
	Straw	3.7	2.8	Percent
	Percentage distribution of households by location of kitchen by sex of household head			
	Separate room	29.0	29.1	Percent
	In the house	19.9	17.5	Percent
	Separate building	8.6	8.0	Percent
	Outdoors	41.4	44.5	Percent
	Others	1.2	0.9	Percent
	Mean number of rooms/tukuls in the households	2.4	2.2	Mean
	Mean number of rooms used for sleeping	1.8	1.7	Mean
	Mean room density	4.0	3.3	Mean
	Percentage distribution by main source of drinking water by sex of household head			
	Piped water	7.4	6.7	Percent
	Hand pump	49.5	48.1	Percent
	Well	18.8	18.8	Percent
	Spring	2.9	3.7	Percent
	Open water	21.6	22.7	Percent

	Indicator	Males	Females	Unit
	Percentage distribution of households by persons who usually collects water			
	Female 15 years or older	85.0	84.3	Percent
	Males 15 years or older	5.5	2.0	Percent
	Females under 15 years	8.8	12.7	Percent
	Males under 15 years	0.7	1.1	Percent
	Percentage distribution of households by type of water treatment			
	Boil	1.2	0.9	Percent
	Chlorine/Bleach	6.5	6.1	Percent
	Cloth strain	3.2	3.8	Percent
	Water filter	2.6	0.4	Percent
	Solar disinfection	0.4	0.3	Percent
	Settling	1.3	0.9	Percent
	Other	0.3	0.7	Percent
	Percentage distribution of households by safety of drinking water			
	Safer water	6.3	6.0	Percent
	Clean water	4.1	3.2	Percent
	Safe source	89.6	90.8	Percent
	Percentage distribution of households by type of toilet facilities by sex of household head			
	Flush toilet	12.0	8.0	Percent
	VIP	1.9	2.0	Percent
	Pit latrine	22.0	26.5	Percent
	No toilet	64.2	63.5	Percent
	Percentage distribution of households by whether they shared the toilets			
	Yes	44.1	44.4	Percent
	No	55.9	55.6	Percent
	Percentage distribution of households by with whom they shared toilet			
	Other households	49.8	65.6	Percent
	Public toilet	50.2	34.4	Percent
	Percentage distribution of respondents by whether FGM should continue			
	Yes	12.8	3.2	Percent
	No	87.2	90.2	Percent
	Undecided	-	6.7	Percent
	Percentage distribution of respondents by whether they will circumcise their daughters			
	Yes	-	4.2	Percent
	No	-	95.8	Percent
	Percentage of respondents by reasons for wife beating by sex			
	Goes out without permission	49.8	54.5	Percent
	Neglects children	58.1	61.8	Percent
	Argues with husband	45.3	52.1	Percent
	Refuses sex	40.6	47.2	Percent
	Burns food	33.8	41.8	Percent

	Indicator	Males	Females	Unit
	Percentage distribution of the respondents by sex who got:			
	Genital discharge	9.8	12.6	Percent
	Genital sore/ulcers	7.7	10.1	Percent
	Treatment for the diseases	58.8	48.0	Percent
	Percentage distribution of respondents who got STI by state			
	Upper Nile	5.9	8.4	Percent
	Jonglei	12.9	16.8	Percent
	Unity	6.5	11.4	Percent
	Warrap	6.8	13.8	Percent
	Northern Bahr el Ghazal	5.2	13.1	Percent
	Western Bahr el Ghazal	9.6	12.3	Percent
	Lakes	6.6	14.9	Percent
	Western Equatoria	16.2	13.7	Percent
	Central Equatoria	18.2	25.4	Percent
	Eastern Equatoria	16.6	14.2	Percent
	Percentage distribution of respondents who got treatment for their STIs by state			
	Upper Nile	40.0	36.8	Percent
	Jonglei	63.9	41.0	Percent
	Unity	23.1	52.5	Percent
	Warrap	35.3	34.7	Percent
	Northern Bahr el Ghazal	54.5	47.6	Percent
	Western Bahr el Ghazal	77.1	40.2	Percent
	Lakes	41.7	44.0	Percent
	Western Equatoria	58.7	50.8	Percent
	Central Equatoria	68.2	64.2	Percent
	Eastern Equatoria	60.5	55.8	Percent
	Percentage distribution of households who had nets			
	Whether someone slept under net	48.1	45.4	Percent
	Average number of net per household	1.9	1.6	Mean

Executive Summary

1.1 Background

South Sudan is highly unequal society in terms of gender equality. Gender is a socially-constructed role different from the biologically determined aspects of being a male or a female. Unlike the biology of sex, gender roles and behaviour and the relations between men and women can change overtime even if aspects of these roles originated in the biological difference between the sexes.

Gender equity means that men and women have equal opportunities or life chances to access and control of socially valued goods and resources. To achieve this, it is important to build up the group that has limited access to resources and services. Gender equity means fair treatment for both men and women according to their respective needs in terms of rights, benefits, obligations and opportunities. Empowerment is about people taking control of their lives. It is about people pursuing their own goals, living according to their own values, developing self-reliance and being able to make choices and influence both individually and collectively the decision that affect their lives.

1.2 The objectives of the study

The main objective of the study is to establish the impact of gender influence on the conditions of the households. Specifically, the study aimed to establish the impact of sex of household heads on the conditions of the household. The study also tried to establish the extent of the values of what is regarded as domestic violence. The study further tried to establish the gender-related behaviour.

2.0 Methodology

The study utilized data collected in the SSHHS 2010. The sample was selected in two stages. Forty enumeration areas were randomly selected from each state as primary sampling units. After a household listing was carried out within the selected enumeration areas, a sample of 25 households was randomly drawn in each sampled enumeration areas. Only 9069 households were successfully interviewed.

The data used in this analysis came from the household questionnaire. Issues about domestic violence and health seeking behaviour were processed from the individual men and women questionnaires. A file of household heads was created from the household listing file. But households which were listed with women as household heads but also when they reported that they were married or in consensual union were regarded as households headed by men. This removed women who were temporarily heads because the husbands might have not been in the households at the time of survey.

3.0 Summary of findings

3.1 Background of household heads

The study found that 10.5% of the households were headed by women. These were women who reported that they either never married, widowed, divorced or separated. The proportion of households headed by women was highest in Western Equatoria, Western Bahr el Ghazal, Jonglei, Central Equatoria and Eastern Equatoria.

Over 87% of the female heads of households did not attain any formal education. About 11% attained primary level of education. Two percent attained secondary education and 0.2% attained university education. On the other hand, 65.7% of the male heads of households did not attain any formal education. About 21% had primary education and 11.9% had secondary education while 1.7% had university education.

Only 8.9% of the female household heads had paid employment. About 12% were self employed and 18.5% were subsistence farmers. Over 44% reported that they were not working. Over 25% of male heads were on paid employment and 15.3% reported that they were self employed. About 27% were subsistence farmers and 32.4% reported that they were not working.

The overall household size in the sample was 6.0 persons. This was higher for households headed by men (6.1) than those headed by women (4.9). Interestingly, it was higher for urban households (6.3) than rural households (5.9). Expectedly, the household size tended to increase with the level of socioeconomic status of the households although the poorest households had higher than most of the levels except the richest group. This is also expected; the poor usually have less education and usually have higher fertility.

3.2 Female genital mutilation

Asked whether the practice should continue, 13.6% of the male respondents wanted the practice to continue but 75.3% wanted it discontinued and 11.1% did not have a definite answer. Only 2.8% of the female respondents wanted it to continue and 79.0% wanted it discontinued. Over 18% of the female respondents did not have a definite answer. We note that higher percentage of females would want to discontinue the practice. Men tended to support FGM more than women; a practice that was initiated by men to control sexuality of women.

Only 4.1% of the women reported they would circumcise their daughters. The percentage of those who would not was 94.5% and 1.4% were not decided. This shows that very high proportion of women do not support FGM.

3.3 Household conditions

Radio sets were the most common items owned by households followed by telephones and TV sets. Over 23% of the male-headed households owned phones. This was owned by 16.3% of female-headed households. About 29% of the male-headed households owned bicycles. This was owned by 15.8% of the female-headed households. Higher percentage of male-headed households owned motorcycles and cars.

Ownership of household animals was found to be even between the male and the female-headed households.

3.3.1 Housing units

Most of the housing units in 2010 were poor. About 86% of the materials for the floor was earth. Only 2.3% of the floor was modern. About 3% of houses in the households headed by men had modern floors. On the other hand, only 1.9% of houses in the households headed by women had modern floors.

Overall, 69.3% of the roofs was grass thatched. Over 69% of the households headed by males was thatched. The figure for female-headed households was 68.0%. About 16% of the households headed by females was modern. The corresponding figure for male-headed households is 14.3%. Poor wooden materials were common to both male and female-headed households.

About 22% of the walls were poor materials like plastic sheets and 56.0% were local materials. Only 16.3% were modern.

Overall, the mean number of rooms/tukuls belonging to the households was 2.4. This was larger for households headed by males (2.4) than in the households headed by females (2.2). The mean number of rooms/tukuls was larger for households living in urban areas (2.7) than rural households (2.3). The mean number of rooms/tukuls increases with increasing level of socioeconomic status of the households. It was 2.0 for the poorest segment of the population and 3.1 for the richest segment of the population.

On average, the mean number of rooms/tukuls used for sleeping was 1.8. It was 1.8 for households headed by males and 1.7 for households headed by females. The average number of tukuls was higher in urban areas (2.0) than in rural areas (1.7). The number of rooms/tukuls used for sleeping tended to increase with increasing socioeconomic status of the households. It was 1.5 for the poorest segment and 2.4 for the richest segment of the population.

The overall number of persons per room/tukul was 3.9. The average number of persons in male-headed households was 4.0. This was higher than in the female-headed households (3.3). Overcrowding was more common in the rural areas (4.0). It was 3.7 persons per room/tukul in urban areas. It was also more common in the poorest households. This progressively reduced from 4.7 persons per room/tukul in the poorest segment until 3.4 persons per room/tukul in the richest segment of the population.

3.3.2 The kitchens

Most of the cooking was done outdoors followed by separate rooms and some space in the houses. Firewood was the most common fuel used for cooking. This was used by 83.1% of the male-headed households and 81.5% of the female-headed households. Charcoal was used by 13.0% of the households. Within the sexes of the heads of households, 15.3% of the female-headed households used charcoal. This was used by 12.7% of the households headed by males. Modern fuel; electricity, gas and kerosene, was rare. Only 0.4% of the households used modern fuel. This was used by 0.4% of male-headed households and 0.3% of the households headed by females.

3.3.3 Household water

The majority of the households consumed water from hand pumps (49.3%) followed by open water (21.7%) and wells (18.8%). For those who did not have piped water or consumed water delivered by water tankers, 84.9% of those who usually collect water were females 15 years or over. Only 5.1% were males 15 years or over and 0.8% were males under 15 years.

Overall, only 13.2% of the households treated water. Only 10.6% of the female-headed households and 13.5% of the male-headed households reported treating water. Even then, the households who reported straining water through cloth, using water filter or settling water are only making water cleaner not safer for drinking. Only those who reported boiling water, adding chlorine/bleach or using solar disinfection were effectively making water safer for drinking.

We also note that some boreholes are drilled in populated areas where residents use pit latrines. This may make water unsafe for drinking. Such households should be advised to treat their water.

3.3.4 Toilet facilities

Overall, 64% of the households did not have any toilet facilities. About 23% were using pit latrines while 1.9% were using VIP and 11.5% were using flush toilets. Asked whether they were sharing these

facilities with other families, 44.2% reported sharing. Sharing was more common among female-headed households. Overall, 51.5% of the households with toilet facilities shared with other households. About 49% of them used public toilets. Female-headed households were more likely to share public toilets (56.6%) than male-headed households (42.3%).

We note that although 35.9% of the households in the survey reported having toilet facilities, 44.2% of them shared the facilities meaning that many who reported having toilet facilities do not have household facilities with all its inconveniences.

3.4 Gender and adolescence

Although marriage is common to both adolescent boys and girls, it is more prevalent with adolescent girls. At age 17, only 6.3% of the males would be in union. The corresponding figures for females was 32.1%. At the age of 18, only 7.7% of the males would be in union with another 1.2% with their marriages dissolved but 47.7% of the females would be in union with another 4.5% with their marriages dissolved.

We also see that at age 19, only 9.9% of the males would be in union but 64.6% of the females would have been in union and 4.8% of them would have left the marriages.

3.4.1 Child bearing in adolescence

Young women 15 years old would have on average 45 children per 1,000 women. This figure rapidly quadrupled to 191 children per 1,000 women at age 16. It increases to 294 children per 1,000 women in age 17. The corresponding figure for age 18 was 478 children per 1,000 women and it was 740 children per 1,000 women at age 19.

3.5 Domestic violence

About 50% of the male respondents agreed that husbands should beat their wives who go without telling them. The corresponding figure for the females was 54.5%. On neglecting children, 58.1% of the male respondents agreed that such a woman should be beaten. The corresponding figure for the female respondents was 61.8%. A beating because of arguing with a husband was supported by 45.3% of the male respondents. The percentage for the female respondents that supported it was 52.1%.

Here 40.6% of the male respondents agreed with a beating for refusing sex. The corresponding figure for females was 47.2%. Beating a woman if she burns food was supported by 33.8% of the males and 41.8% of the female respondents. Female respondents seemed to support wife-beating for these reasons more than their male counterparts.

Twenty one percent of the women reported that they have ever been beaten and 17.0% of the men had ever beaten their wives.

Wife beating was highest in Jonglei (27.7%) followed by Eastern Equatoria (26.1%), Upper Nile (22.9%), Unity (22.2%) and Western Equatoria (21.2%). It was lowest in Central Equatoria (12.4%) followed by Warrap (12.7%), Western Bahr el Ghazal (15.9%), Lakes (16.5%) and Northern Bahr el Ghazal (16.7%).

Wife beating was most common in rural areas. Over 18% of the males in rural areas reported beating their wives in the last one year to the survey. This was reported by only 14.1% of the males in the urban areas. About 22% of the women in the rural areas reported being beaten in the last one year. The

corresponding figure for those from urban areas was 19.8%. The difference between the males and females may arise due to polygamy as many women will report beatings by one man.

3.6 Health seeking behavior

The highest level of sexually transmitted infection in men was exhibited by Central Equatoria (18.2%) followed by Eastern Equatoria (16.6%), Western Equatoria (16.2%) and Jonglei (12.9%). The prevalence was lowest in Northern Bahr el Ghazal (5.2%) followed by Upper Nile (5.9%). Considering female respondents, Central Equatoria still leads with 25.4% followed by Jonglei (16.8%), Lakes (14.9%) and Eastern Equatoria (14.2%). The infection was least reported in Upper Nile (8.4%) followed by Unity (11.4%) and Western Bahr el Ghazal (12.3%).

Asked whether they sought treatment, 58.8% of the males reported having sought treatment. The corresponding figure for females was 48.0%. It can be seen that a higher percentage of women reported having infection. But when it comes to treating the infection, a higher percentage of men did so. For men, treatment was highest in Western Bahr el Ghazal (77.1%) followed by Central Equatoria (68.2%), Jonglei (63.9%) and Eastern Equatoria (60.5%). For women, treatment seeking was highest in Central Equatoria (64.2%) followed by Eastern Equatoria (55.8%), Unity (52.5%) and Western Equatoria (50.8%).

3.7 Presence of mosquito nets

Overall, 52.5% of the households had mosquito nets. By sex of household heads, 52.7% of the households headed by males had mosquito nets. The corresponding percentage for female-headed households was 50.5%.

Overall, 47.9% of the households which had mosquito nets reported that some people slept under the nets. By sex of household heads, only 45.4% of the households headed by females reported that somebody slept under the nets. The corresponding figure for male-headed households was 48.1%. So even having mosquito nets does not guarantee using them.

Western Equatoria had the highest mean number of nets (3.0) and was followed by Eastern Equatoria (2.5), Northern Bahr el Ghazal, Lakes and Central Equatoria each at 2.0. Warrap had the lowest mean number of mosquito nets (0.8) followed by Western Bahr el Ghazal and Unity each at 1.4. If we recall that the average family size was 6.0 and the overall mean number of mosquito nets was 1.9, we may deduce that a number of people are not sleeping under mosquito nets.

By wealth index, we see that the mean number of nets seems to increase with increase in socioeconomic status. The poorest group had an average of 1.4 nets and it was 1.3 for those in the second quintile. Thereafter, it increased to 1.7 for the segment in the middle quintile and further to 2.2 for those in the fourth quintile and to 2.8 nets for the richest group.

The mean number of nets is higher in urban areas (2.3) compared to rural areas (1.7). The mean number of nets are higher in households headed by males (1.9) compared to households headed by females (1.6).

4.0 Conclusions

Large proportion of girls in their adolescence gets married earlier than boys of the same age. This reveals that these girls get married to older men. With very high prevalence of polygamy, these girls may enter as additional wives to men who already have wives.

Women were less likely to seek treatment for STIs compared to men even when a higher proportion reported getting infected. Only comprehensive treatment will eradicate STIs. Partial treatment will still result in re-infection.

Although some households have mosquito nets, sometimes they are not used and therefore, they do not endeavor to control the spread of malaria fever. And the tendency of not to sleep under the nets is more common in households headed by females.

FGM was more supported by men. Very high proportion of women would not want to circumcise their daughters.

5.0 Recommendations

Education of children would improve their prospects of economic activities. This would enable the children, especially the girls, to take a decision on when to marry and the type of marriage to be in.

The infected should be encouraged to go for treatment with their partners/spouses or alternatively, government should have mobile treatment centres in the villages and to encourage the infected, together with their spouses/partners, to seek treatment.

Government, with the support of civil society organizations, should spearhead campaign to eliminate the practice of FGM.

Chapter One

Introduction

1.1 Background

South Sudan is a highly unequal society in terms of gender equality (MoGC&SW, 2013). The term gender refers to culturally-based expectations of the roles and behaviour of men and women. Gender is a socially-constructed role different from the biologically determined aspects of being a male or a female. Unlike the biology of sex, gender roles and behaviour and the relations between men and women can change overtime even if aspects of these roles originated in the biological difference between the sexes.

Gender equity means that men and women have equal opportunities or life chances to access and control of socially valued goods and resources. This does not mean that men and women should be the same but that the country works towards equal life chances for both sexes. To achieve this, it is important to build up the group that has limited access to resources and services. Gender equity means fair treatment for both men and women according to their respective needs in terms of rights, benefits, obligations and opportunities. Empowerment is about people taking control of their lives. It is about people pursuing their own goals, living according to their own values, developing self-reliance and being able to make choices and influence both individually and collectively the decision that affect their lives.

1.2 Policy framework

The constitution of South Sudan accords a woman full and equal dignity of a person with a man. A woman has right to equal pay as men, to participate equally with men in public life and the right to own property (MoLA&CD, 2011). Ministry of Gender, Child and Social Welfare has developed a national gender policy with eight thematic areas; Gender and Governance, Gender and Education and Capacity Development, Gender and Health, Gender and Food Security, Gender and Economic Empowerment, Sexual and Gender-based Violence, Gender, Peace and Security and Gender, Environment and Natural Resource Management.

Because of a number of social, cultural, structural and economic changes, gender differentials and availability and access to resources is important for purposes of defining programs of practical interventions.

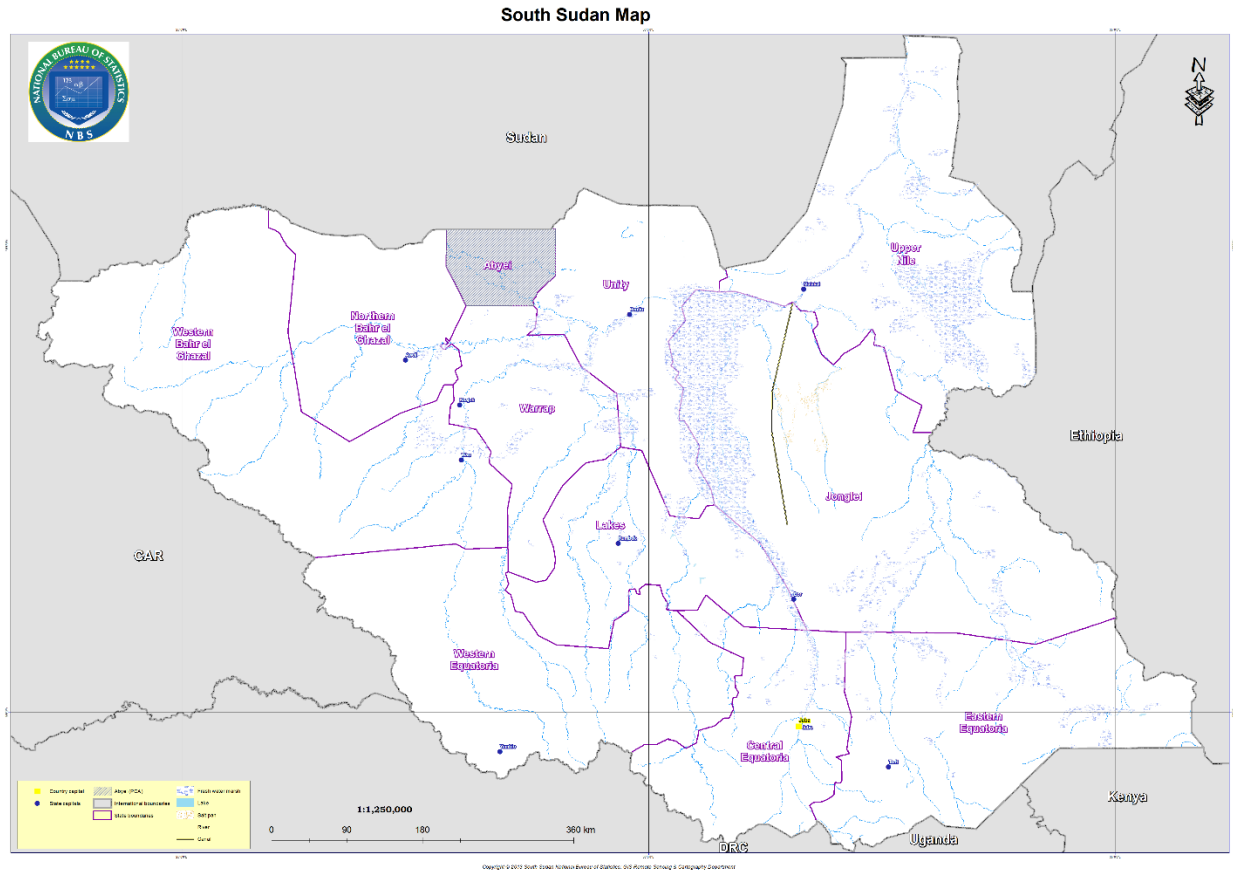
1.2 History of South Sudan

By the 1980s, the civil war in the then Sudan caused serious economic and social problems which resulted in a lack of infrastructure, human rights issues and the displacement of a large part of its population. This also affected education sector as education was neglected. War broke out again in 1983 when Sudan was declared a Muslim state, ruled by Shariah. In response, southern rebels formed the Sudan People's Liberation Army (SPLA) and fought the government for more than two decades. A ceasefire was declared between the Sudanese government and the SPLA in July 2002. During peace talks, the government agreed to a power-sharing government for six years, to be followed by a referendum on self-determination for the south.

After working with the United Nations Security Council, the Government of Sudan and the SPLM signed the Comprehensive Peace Agreement on 9th January, 2005. On 9th January, 2011 Sudan held a referendum regarding South Sudan's secession. It passed with nearly 99% of the vote and on 9th July, 2011 South Sudan officially seceded from Sudan, making it the world's 196th independent country.

1.3 Geography of South Sudan

South Sudan is a landlocked country located in Eastern Africa with plains in the north and center and highlands in the south, along the border with Uganda and Kenya. South Sudan is bordered by Central African Republic, Democratic Republic of the Congo, Uganda, Kenya, Ethiopia and the Sudan.



Since South Sudan is located near the Equator in the tropics, much of its landscape consists of tropical rainforest. South Sudan also has extensive swamp and grassland regions. The White Nile, a main tributary of the Nile River, also passes through the country. The climate of South Sudan varies but it is mainly tropical. Juba, the capital and largest city in South Sudan, has average yearly high temperature of 34.5°C and an average yearly low temperature of 21.6°C. The most rainfall in South Sudan is between the months of April and October and the average yearly total for rainfall is 953.7 mm.

1.4 Economy of South Sudan

South Sudan's economy is based mainly on the export of its natural resources. Oil is the main source of revenue. Timber resources like teak, also represent a major part of the region's economy and other natural resources include iron ore, copper, chromium ore, zinc, tungsten, mica, silver and gold.

South Sudan depends largely on imports of goods and services. Despite these disadvantages, South Sudan does have abundant natural resources. South Sudan also holds one of the richest agricultural areas in Africa in the White Nile valley, which has very fertile soils and more-than-adequate water supplies.

The Republic of South Sudan became the world's newest nation and Africa's 55th country on 9th July, 2011, following a peaceful referendum in January, 2011. The referendum was foreseen as part of the 2005 Comprehensive Peace Agreement (CPA) signed by the Government of the Republic of the Sudan and the then southern-based rebel group, the Sudan People's Liberation Movement, after decades of conflict.

South Sudan has vast and largely untapped natural resources and opportunities abound for visible improvements in the quality of peoples' lives, but there are also many challenges. Geographically large, South Sudan is sparsely populated and the quality of the population is generally low with very low rate of school attendance.

1.7 The objectives of the study

The main objective of the study is to establish the impact of gender influence on the conditions of the households. Specifically, the study tries to establish the differentials in the housing conditions by sex of household heads.

1.8 Methodology

The sample size for the survey was determined by the degree of precision required for survey estimates for each state. Since a similar level of precision was required for the survey results from each state, it was decided to draw 40 clusters from each state and 25 households from each cluster. The total sample was finally 9,950 households or 398 clusters (enumeration areas)

The sample was selected in two stages. Forty enumeration areas were randomly selected from each state as primary sampling units. After a household listing was carried out within the selected enumeration areas, a sample of 25 households was randomly drawn in each sampled areas. But only 9069 households were successfully interviewed.

The data used in this analysis came from the household questionnaire. Issues about domestic violence and health seeking behaviour were processed from the individual men and women questionnaires. A file of household heads was created from the household listing file. But households which were listed with women as household heads but also when they reported that they were married or in consensual union were regarded as households headed by men. This removed women who were temporarily heads because the husbands might have not been in the households at the time of survey. This brings us to near the general level of female household heads which is about 22% in sub-Saharan Africa (Bongaarts, 2001).

Chapter Two

Background Characteristics

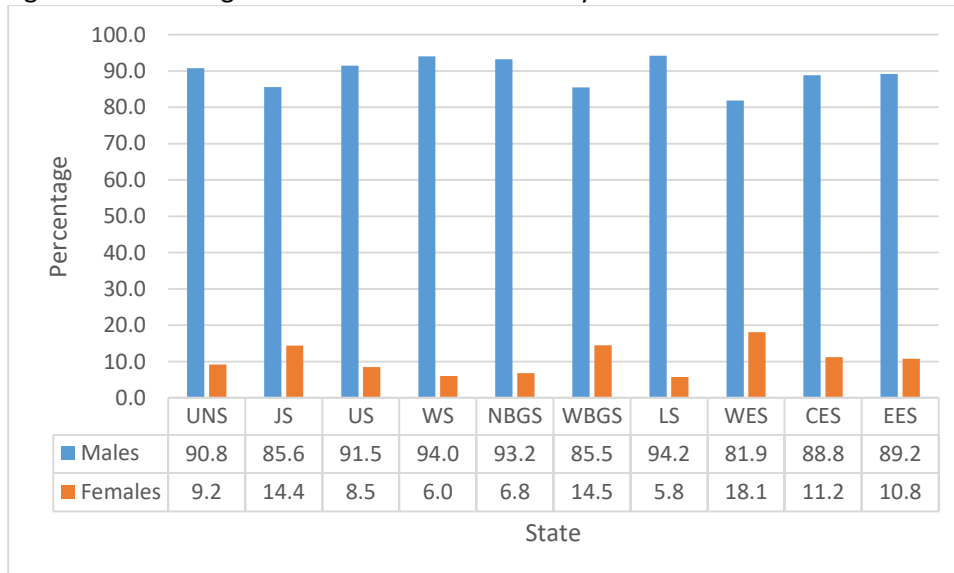
2.1 Introduction

Some background variables of the household heads are presented in this chapter. These are distribution by state, marital status, age group and education. These variables are important because they help explain the outcomes of other variables.

2.2 State of residence

A total of 9,369 households are used in this study. Of them, 3992 households were reported as headed by women and 5,377 households by men. Some of the households headed by women were headed by those who reported that they were currently married or in consensual union which may mean that the husbands were temporarily absent from home. In effect, there were 986 households headed by women who were never married, widowed or separated. For this analysis, these are the households which are regarded as headed by women. Figure 1 shows that Western Equatoria, Western Bahr el Ghazal, Jonglei, Central Equatoria and Eastern Equatoria reported higher proportions of households headed by females. This was highest in Western Equatoria (18.1%) followed by Western Bahr el Ghazal (14.5%), Jonglei (14.4%), Central Equatoria (11.2%) and Eastern Equatoria (10.8%).

Figure 1: Percentage distribution of household by state and sex of household heads



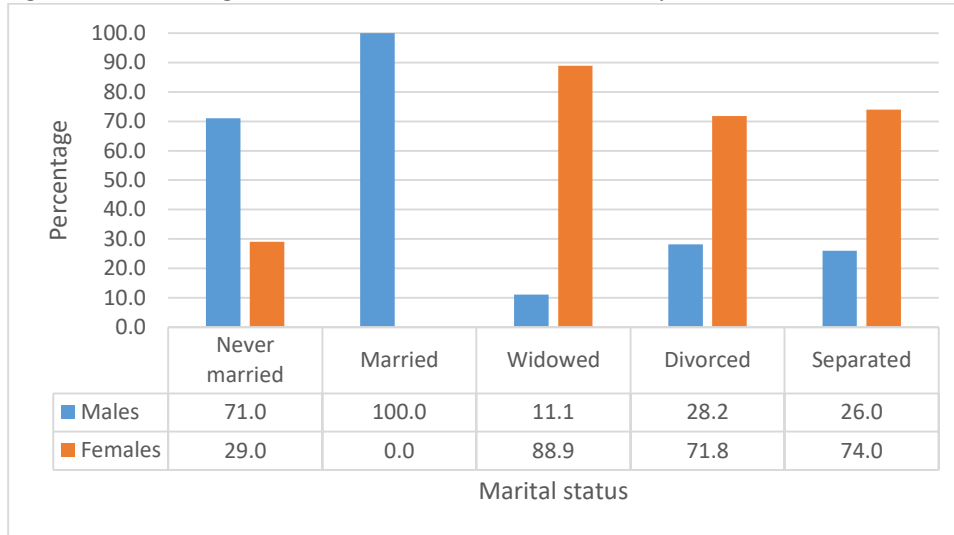
The proportion of households headed by females was lowest in Lakes (5.8%) followed by Warrap (6.0%) and Northern Bahr el Ghazal (6.8%).

2.3 Marital status of household heads

There was interest in establishing the marital status of the household heads. This is presented in Figure 2 and it shows that 71.0% of those who had never married were males and 29.0% were females. This is in line with leaving the parents' homes and finding work outside and, therefore, a start of a family. We see that 88.9% of those who reported that they were widowed were females. The figure also shows that 71.8% of those who reported that they were divorced were females and 74.0% of those separated

were also females. These large percentages arise from the polygamous nature of the communities. Men with other wives may not report that they were widowed, divorced or separated because they have other women to fall back to. Also in case of death when a polygamous man dies, all his wives become widows. And yet if a wife of a monogamous man dies, this will result into only one widower.

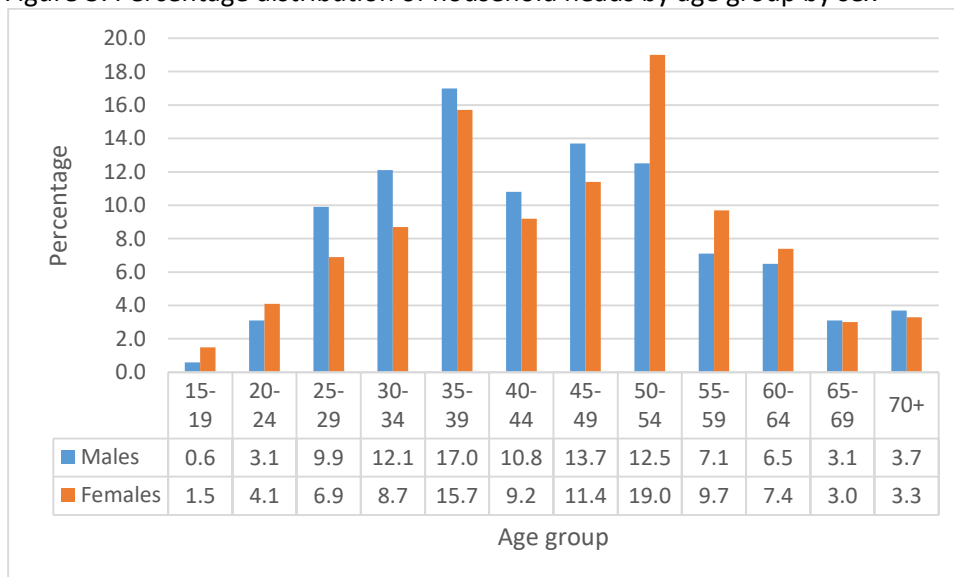
Figure 2: Percentage distribution of household heads by marital status



2.4 Age group of household heads

Age group of the household heads is presented in Figure 3 and it shows that 0.6% of the men were 15-19 years old. The corresponding figure for women was 1.5%. The figure also shows that 3.1% of the men were 20-24 years. The corresponding figure for women was 4.1%. This means that higher percentage of women were heading young households. The figure shows that the younger household heads were predominantly women. This may be because of work where a person leaves home and starts a family in the area of work.

Figure 3: Percentage distribution of household heads by age group by sex



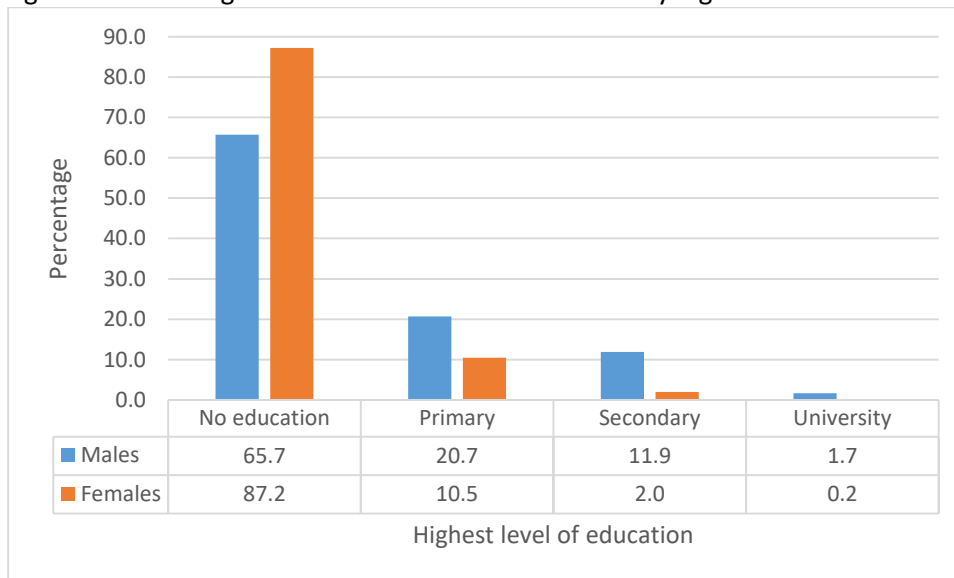
The figure also shows that from age group 50-54 to 60-64, higher percentage of households were headed by women. This is when widowhood and other factors that cause breakdown of family structures come in. It can be seen that after 64 years, the difference between men and women is insignificant but which should be considered an important issue of concern in terms of welfare conditions of members of these households headed by older women.

2.5 Education of household heads

Literacy is important in fighting ignorance, ill-health and poverty. Only 12.7% of the heads who could read and write were women. The corresponding figure for male heads was 87.3%. Figure 4 shows that 87.2% of the female heads of households had no formal education. The corresponding figure for the male heads was 65.7%. Only 10.5% of the female heads had primary education. The corresponding figure for those with secondary education was 2.0% and it was 0.2% for those with university education.

About 21% of the male heads had primary education and 11.9% had secondary education. About 2% of the male heads had university education.

Figure 4: Percentage distribution of household heads by highest level of education by sex



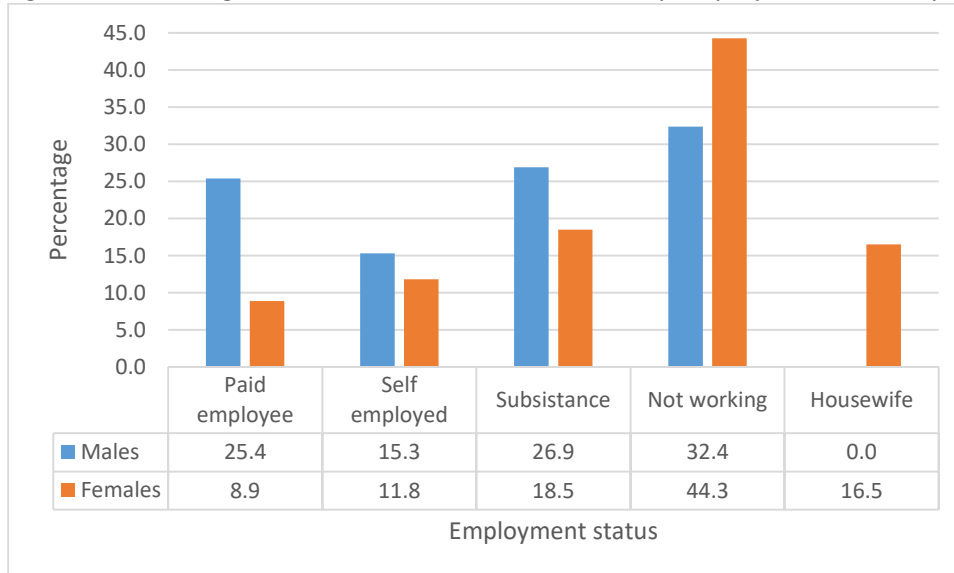
A good education opens chances for a well paying job. Such jobs do not have gender discrimination. Low level of education means a low paying job and this is detrimental to the welfare of members of households headed by women.

2.6 Employment status of the heads of households

Employment status determines the resources accessible to the households. Those households whose heads are on paid employment or self employment tend to have more resources. Figure 5 shows that men are almost three times more likely to be in paid employment. And this could have arisen from educational achievement.

The figure shows that only 8.9% of women were on paid jobs. The corresponding figure for males was 25.4%. It also shows that 15.3% of the men were self employed. The corresponding figure for females was 11.8%. We see that 32.4% of the males reported that they were not working. The corresponding figure for females was 44.3%. The figure also shows that 16.5% of the females reported that they were housewives. These women may be reporting history since we had removed women who reported that they were the heads and at the same time that they were married or in consensual union. We can deduce from these figures that 60.8% of female household heads were not on any gainful employment but only 32.4% of the male headed households did not have gainful employment. Even in the subsistence farming, we see that only 18.5% of the female heads reported that they were practicing subsistence farming. But we see that 26.9% of the male heads reported subsistence farming.

Figure 5: Percentage distribution of household heads by employment status by sex



2.7 Household size

Number of household members is critical because it determines the level of food consumption exposed to the members. It also determines the level of health care given to each member of the household. In most cases, although not always, large households would have a number of young children. This brings in another factor, school expenditure. If the household cannot send the children to school, they will miss education resulting in poor labour force.

Mean household size was computed using one-way ANOVA. This is presented in Table 1. Overall, the average household size is 6.0 persons. The table shows that it significantly varies by all the factors listed in the table. The mean household size is highest in Upper Nile (6.7) followed by Unity and Lakes each at 6.6 and Warrap (6.3). The lowest mean household size was displayed by Western Bahr el Ghazal, Western Equatoria and Eastern Equatoria each at 5.5 persons. These were followed by Northern Bahr el Ghazal (5.6), Jonglei (5.7) and Central Equatoria (5.9).

The household size seems to increase with level of wealth accumulation in the households. This is not the expected pattern but might arise from the fact that most families are not nuclear so that the relatives come to stay in the households which are relatively better off. The average household size for the poorest segment of the population was 6.0 persons. It was 5.6 for the second and the middle

segment of the population. It then increased to 5.8 persons for the fourth quintile and further to 7.0 persons for the richest households.

The table also shows that the mean household size is larger in urban areas (6.3) than in rural areas (5.9). This confirms the presence of relatives in the households which are relatively better off. The relatives come to live with working relatives thus giving a larger household sizes. Normally, the household sizes are larger in rural areas than in urban areas. This is because the rural people are usually less educated. Their time in economic engagement is shorter and they usually have larger number of children.

The mean household size for male-headed households was 6.1 and it was 4.9 for households headed by females. This was highly significant ($F_{1,9367,0.000} = 221.9$). This is explained by the fact that many people come and live in households which are relatively better off and those households are usually headed by men.

Table 1: Mean household size by some background variables

Factors	Number	Mean	Statistics
Mean household size by state			
Upper Nile	949	6.7	$F_{9,9359,0.000} = 27.6$
Jonglei	912	5.7	
Unity	840	6.6	
Warrap	935	6.3	
Northern Bahr el Ghazal	982	5.6	
Western Bahr el Ghazal	950	5.5	
Lakes	939	6.6	
Western Equatoria	944	5.5	
Central Equatoria	963	5.9	
Eastern Equatoria	955	5.5	
South Sudan	9,369	6.0	
Mean household size by wealth index			
Poorest	1,716	6.0	$F_{4,9364,0.000} = 69.1$
Second	1,926	5.6	
Middle	2,020	5.6	
Fourth	2,013	5.8	
Richest	1,694	7.0	
Mean household size by residence			
Urban	2,420	6.3	$F_{1,9367,0.000} = 44.6$
Rural	6,949	5.9	
Mean household size by sex of household heads			
Males	8,383	6.1	$F_{1,9367,0.000} = 146.9$
Females	986	4.9	
South Sudan	9,369	6.0	

Chapter Three

Housing Conditions

3.1 Introduction

Housing conditions have bearings on the health conditions of the household members and this may affect the community as well. This chapter presents information on housing conditions with gender perspectives. Issues considered here are the ownership of household items and animals, housing type and number of rooms available, fuel used by the households and the extent of overcrowding in the households.

3.2 Housing conditions

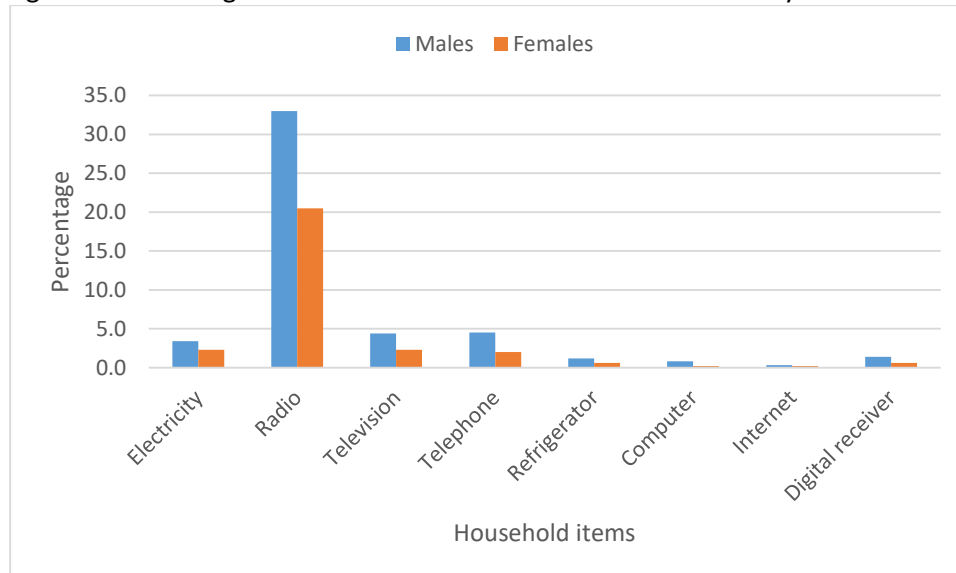
The study looked at the number of household members. The number of family members in relation to the number of sleeping rooms to measure the room density. The higher the room density, the higher the likelihood of communicable diseases. This is especially very serious with children. The household heads were asked the number of sleeping rooms/tukuls in the home. They were also asked how many of those rooms/tukuls were used for sleeping.

One way ANOVA was conducted to estimate the mean number of rooms/tukuls were in the homes. It was also used to estimate the mean number of rooms/tukuls which were used for sleeping.

3.3 Ownership of household items

Ownership of household items can reveal the status of the households. Ownership of ICT items can facilitate acquisition of information which is important in improving the general welfare of the household. Figure 6 shows that radio sets were the most common items owned by households and is followed by telephones and television sets.

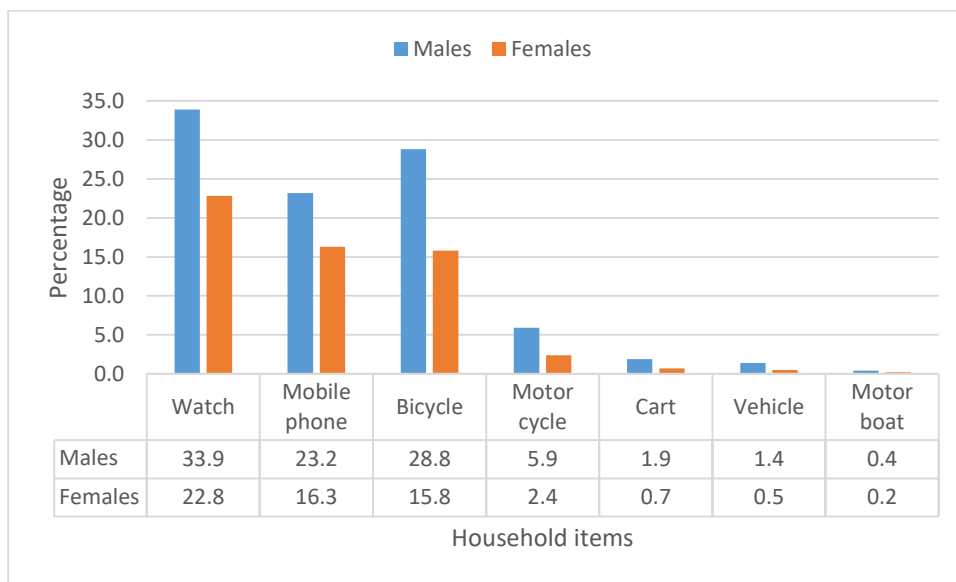
Figure 6: Percentage of households with some household items by sex of household head



The figure also shows that some people reported that their households used electricity. We should note that these are generally generators which do not run for a full day. These generators may be owned by the households or run by somebody in the neighbourhood in a low level commercial venture.

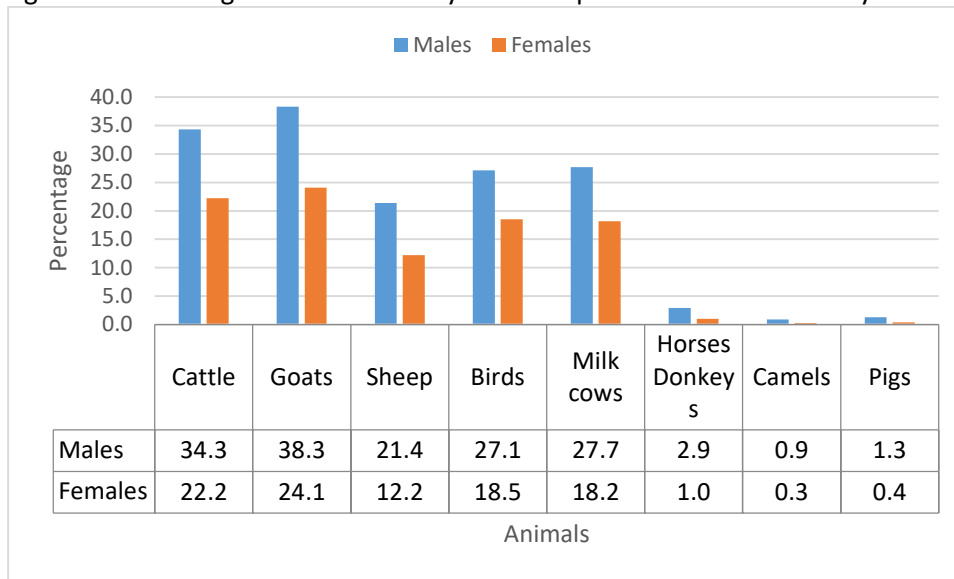
Figure 7 shows that 23.2% of the male headed households owned phones. The corresponding figure for female-headed households was 16.3%. About 29% of the male-headed households owned bicycles. The figure for female headed households was 15.8%. The figure also shows that higher percentages of male headed households owned motorcycles and vehicles. Overall, the figure shows higher proportion of the male-headed households owning the items in the list.

Figure 7: Percentage of households by whether they have some household items by sex of household head



Ownership of animals was also investigated and is presented in Figure 8. Because of the way the questions on animals was set, the study has only looked at the presence of animals in the households irrespective of the number of animals actually owned. The figure shows that ownership is about even between the male and female headed households. But it can be seen that, as with the household items presented in Figure 7, higher proportion of households headed by males owned the animals.

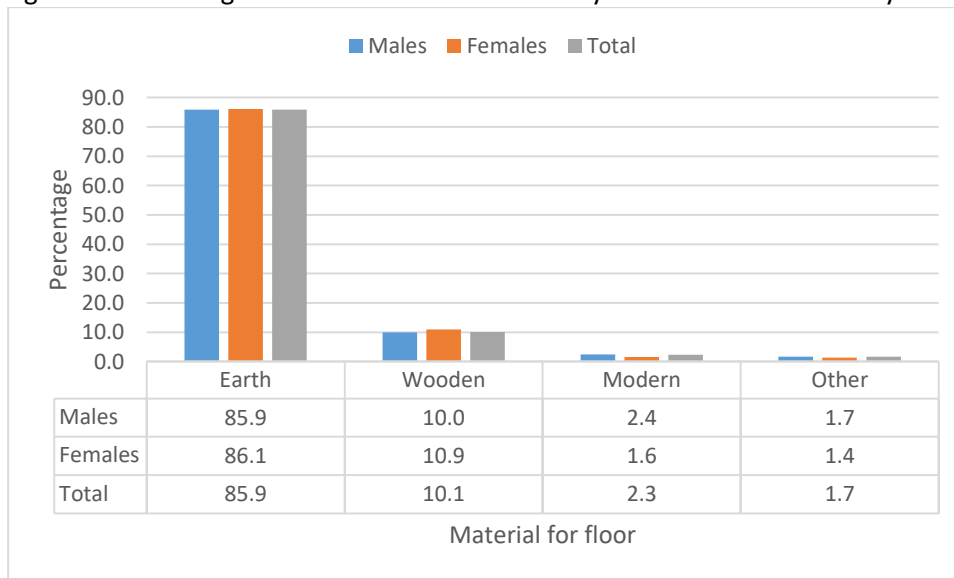
Figure 8: Percentage of households by ownership of domestic animals by sex of household head



3.6 Housing conditions

Most of the housing units during the survey of 2010 was poor. About 86% of the materials for the floor was earth. Only 2.3% of the floor was modern while 2.6% of the floor of the households headed by males was modern. On the other hand, only 1.9% of the floors of houses headed by females was modern.

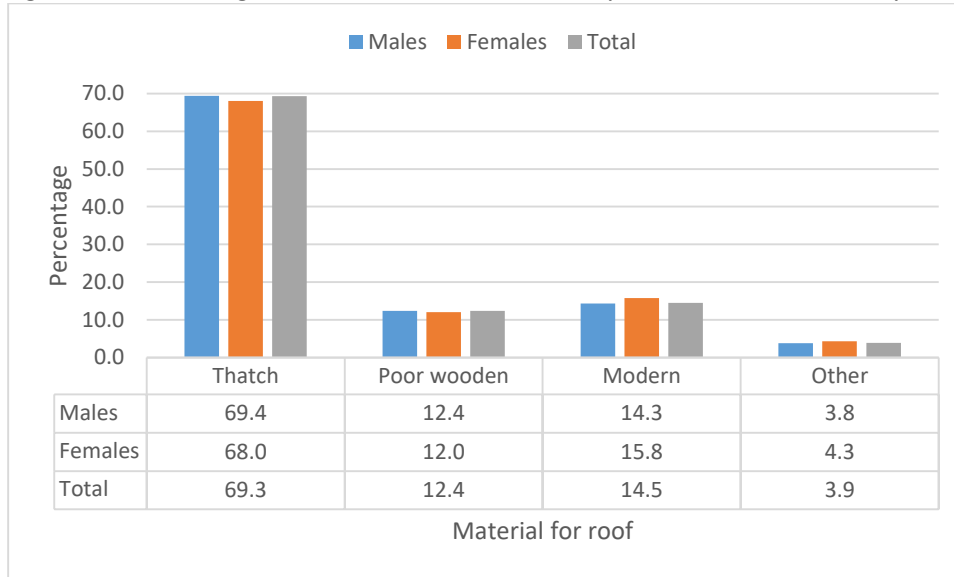
Figure 9: Percentage distribution of households by material for the floor by sex of household head



The material used for the roofs is presented in Figure 10. Overall, 69.3% of the roofs was grass thatched. By sex of household head, 69.4% of the male-headed households had grass thatch. The corresponding figure for the female-headed households was 68.0%. Only 14.5% of the roofs was modern. While 15.8% of the female-headed households had modern roofs, only 14.3% of the male-headed households reported having modern roofs. Poor wooden roofs were reported by 12.4% of the

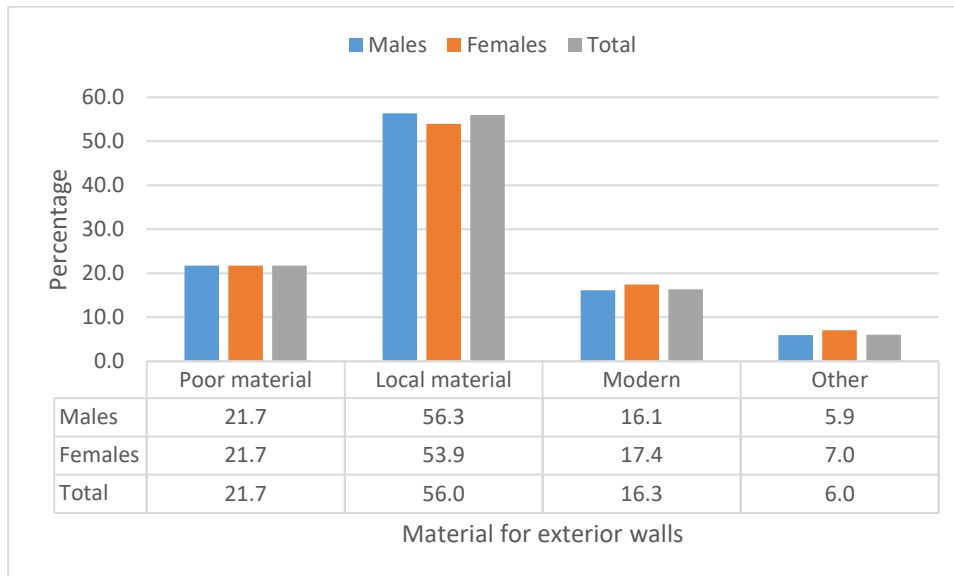
male-headed households and 12.4% of the female-headed households. We see that more homes headed by females were made of modern materials.

Figure 10: Percentage distribution of households by material for the roof by sex of household head



Materials for exterior walls are presented in Figure 11. Overall, 21.7% of the walls were poor materials like plastic sheets and 56.0% were local materials. Only 16.3% were modern. The figure shows that 16.1% of the walls of the male-headed homes were made from modern materials. The corresponding for the female-headed homes was 17.4% implying that walls of the houses for female-headed homes were better than that for the male-headed homes.

Figure 11: Percentage distribution of households by type of material for exterior wall by sex of household head



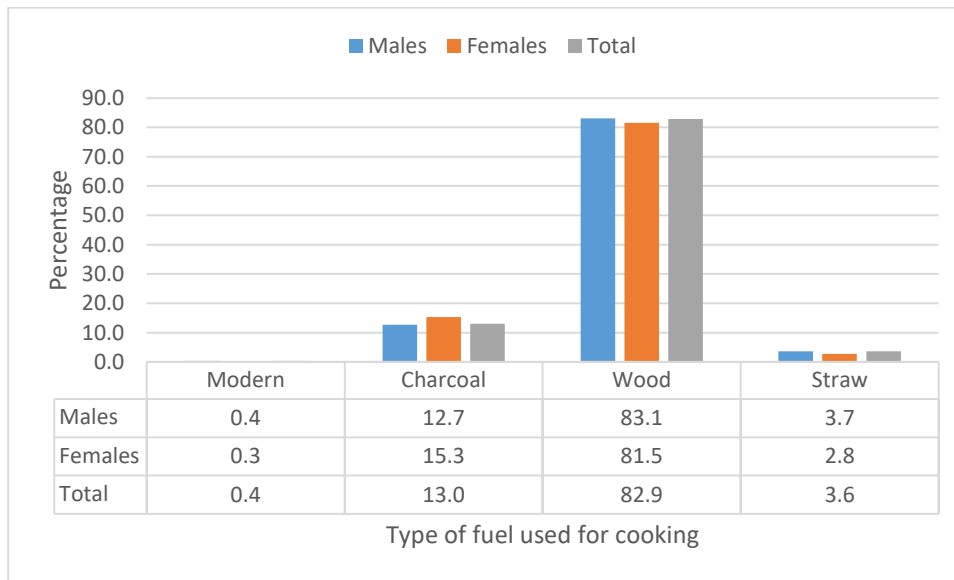
We may remember that a higher proportion of female-headed households had floors made from modern materials. We may further note that these were mostly women who were formerly married but

are now widowed, divorced or separated. So this favourable housing conditions could have arisen at the time when they were in marriage.

3.6 Energy used for cooking

Figure 12 shows that 82.9% of the households used firewood for cooking. Thirteen percent of the households used charcoal. About 15% of the households headed by males used charcoal. The corresponding figure for the female headed households was 10.7%. Although only 0.4% of the households used modern fuel sources, this was more common in the male headed households (0.5%) than in the females headed households (0.3%).

Figure 12: Percentage distribution of households by type of fuel used for cooking by sex of household head

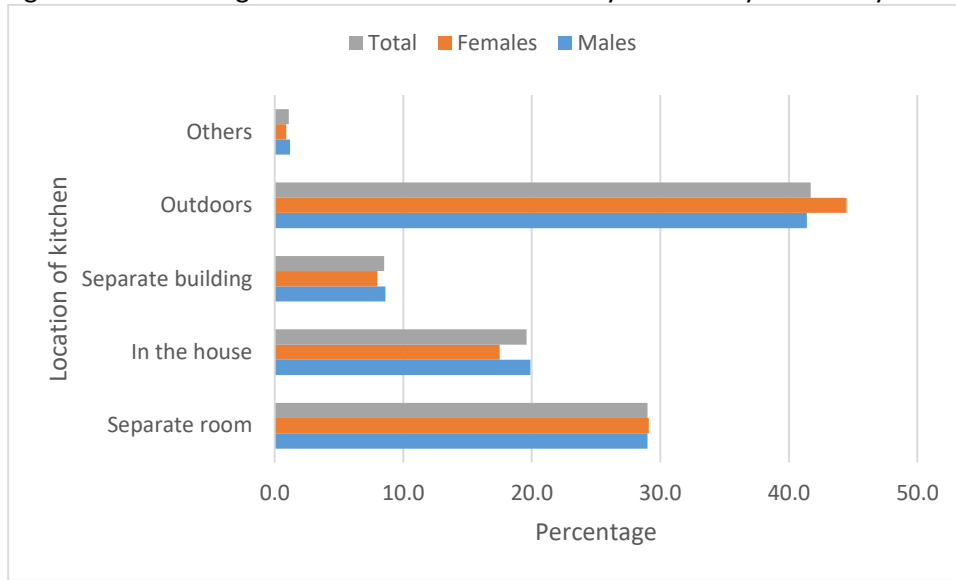


3.7 Location of kitchen

Examination of a place of cooking is very important for two main reasons. One is assessment of the efficiency of fuel consumption and the other is the health condition of the household members especially children. A good kitchen may improve the health status of the members of the households especially the young ones and those who cook. The location of the kitchen was crosstabulated by sex of household head and is presented in Figure 13. Most of the cooking was done outdoors followed by separate rooms and some space in the house.

Outdoor cooking may waste a lot of fuel as wind may blow away some of the heat. Moreover, the stoves used in such situation are not efficient. Figure 13 shows that a lower percentage of female-headed households cook in houses as compared to male-headed households. They are also less likely to cook in separate building but are more likely to cook outdoors.

Figure 13: Percentage distribution of households by location by kitchen by sex of household head



3.8 Number of rooms/tukuls belonging to the households

Accommodation is essential for good health. Households were asked the number of rooms/tukuls belonging to them. Table 2 shows that overall, the mean number of rooms/tukuls for South Sudan was 2.4. By state, the average number of rooms/tukuls were highest in Western Equatoria (3.2) followed by Central Equatoria (2.8) and Northern Bahr el Ghazal (2.7). The number of rooms was lowest in Eastern Equatoria (1.8) followed by Western Bahr el Ghazal with 2.1 and Lakes, Warrap and Jonglei each at 2.2.

The number of rooms were also computed by wealth index and it shows that the poorest households had on average 2.0 rooms/tukuls. The average number of tukuls increases to 2.1 for the second quintile and further to 2.3 for those in the middle quintile. The households belonging to the fourth quintile had on average 2.7 rooms/tukuls and it was 3.1 for the richest class. This means that the number of rooms increases with increasing socioeconomic status.

By residence, the table shows that the households in the urban areas had on average 2.7 rooms and those in the rural areas had on average 2.3. A study by SSCSE (2010) revealed that there was more poverty in the rural areas. The incidence of poverty was 55.4% in rural areas and 24.4% in urban areas. Poverty gap and severity of poverty were also higher in rural areas. The presentation by wealth index shows that the poorer the households the lower the average number of rooms/tukuls.

Table 2: Mean number of rooms/tukuls belonging to the households by some background variables

Factors	Number	Mean	Statistics
Mean number of rooms/tukuls belonging to the household by state			
Upper Nile	934	2.4	$F_{9,9359,0.000} = 27.6$
Jonglei	906	2.2	
Unity	832	2.3	
Warrap	934	2.2	
Northern Bahr el Ghazal	982	2.7	
Western Bahr el Ghazal	946	2.1	
Lakes	925	2.2	
Western Equatoria	943	3.2	
Central Equatoria	961	2.8	
Eastern Equatoria	952	1.8	
South Sudan	9,315	2.4	
Mean number of rooms/tukuls belonging to the household by wealth index			
Poorest	1,709	2.0	$F_{4,9310,0.000} = 195.5$
Second	1,914	2.1	
Middle	2,000	2.3	
Fourth	2,000	2.7	
Richest	1,692	3.1	
Mean number of rooms/tukuls belonging to the household by residence			
Urban	2,412	2.7	$F_{1,9313,0.000} = 124.3$
Rural	6,903	2.3	
Mean number of rooms/tukuls belonging to the household by sex of household heads			
Males	8,332	2.4	$F_{1,9313,0.000} = 34.9$
Females	983	2.2	
South Sudan	9,315	2.4	

The table also shows that the mean number of rooms/tukuls significantly differs by sex of household heads. It was 2.4 for households headed by males and 2.2 for households headed by females.

3.9 Number of rooms/tukuls used for sleeping

The number of rooms/tukuls used for sleeping in the household indicates the level of overcrowding in the home. The respondents were asked how many rooms were used for sleeping. The mean number of rooms was calculated using ANOVA model and is presented in Table 3 which shows that overall, the mean number of rooms/tukuls was 1.8. This was highest in Central Equatoria and Western Equatoria (2.2) followed by Upper Nile (1.9), Jonglei (1.8) and Unity, Northern Bahr el Ghazal, Western Bahr el Ghazal and Lakes each at 1.7. The lowest mean number of rooms/tukuls used for sleeping was recorded in Eastern Equatoria (1.5) followed by Warrap (1.6).

Table 3: Mean number of rooms/tukuls used for sleeping

Factors	Number	Mean	Statistics
Mean number of rooms/tukuls used for sleeping by state			
Upper Nile	932	1.9	$F_{9,9278,0.000} = 48.9$
Jonglei	899	1.8	
Unity	832	1.7	
Warrap	928	1.6	
Northern Bahr el Ghazal	981	1.7	
Western Bahr el Ghazal	943	1.7	
Lakes	922	1.7	
Western Equatoria	941	2.2	
Central Equatoria	961	2.2	
Eastern Equatoria	949	1.5	
South Sudan	9,288	1.8	
Mean number of rooms/tukuls used for sleeping by wealth index			
Poorest	1,702	1.5	$F_{4,9283,0.000} = 209.1$
Second	1,912	1.6	
Middle	1,991	1.7	
Fourth	1,995	1.9	
Richest	1,688	2.4	
Mean number of rooms/tukuls used for sleeping by residence			
Urban	2,404	2.0	$F_{1,9286,0.000} = 128.9$
Rural	6,884	1.7	
Mean number of rooms/tukuls used for sleeping by sex of household heads			
Males	8,310	1.8	$F_{1,9286,0.000} = 15.3$
Females	978	1.7	
South Sudan	9,288	1.8	

Presentation by socioeconomic status reveals that the poorest segment of the population has the lowest average number of rooms used for sleeping (1.5). This improved to 1.6 for those in the second quintile and further to 1.7 for those in the middle quintile. Those in the fourth quintile had on average 1.9 rooms/tukuls for sleeping and it was 2.4 for the richest segment of the population. But we realise from Table 1 that the household size of the richest segment was 7.0 so the higher the mean number of sleeping rooms/tukuls used for sleeping is to take care of the large household size.

Mean number of sleeping rooms was higher in urban areas (2.0) compared to rural areas (1.7). This is tied together with socioeconomic status as already mentioned above. People in urban areas are more capable to provide rooms for sleeping for household members.

The table also shows that households headed by women had lower mean number of rooms used for sleeping (1.7) compared to households headed by males (1.8).

3.10 Overcrowding

The survey solicited the number of household members. This was divided by the number of rooms/tukuls that the household has for sleeping. This gave the average number of persons sleeping in a room/tukul per household. The mean of this number was computed using ANOVA model with factors

being the state, wealth index, residence and sex of household head. Use of ANOVA was to provide for the test for significance between the factors.

Overall, the mean number of persons per sleeping room/tukul for South Sudan was 3.9. This was highest in Warrap and Lakes at 4.6 followed by Unity (4.5), Eastern Equatoria (4.2) and Upper Nile (4.1). The mean number of persons per sleeping room was lowest in Western Equatoria (2.8) followed by Central Equatoria (3.2), Western Bahr el Ghazal (3.5) and Northern Bahr el Ghazal and Jonglei each at 3.8 persons per sleeping room.

By wealth index, we see that the richer households have fewer persons per room/tukul. They are more able to provide for more rooms for their household members. Households in the poorest segment had on average 4.7 persons per room. This reduced to 4.1 for those in the second quintile and further to 3.7 for those in the middle quintile. The mean number of persons per room/tukul for households in the fourth quintile was 3.5 and it was 3.4 persons per room for households in the richest segment of the population. We may note that although the richer households had more members, they were able to provide sleeping rooms/tukuls and have reduced on overcrowding.

The table also shows that the households in urban areas had their average below national figure of 3.9 but the rural households had on average 4.0 persons per room/tukul.

Households headed by females had on average 3.3 persons per room/tukul compared to 4.0 for households headed by males. This is because although they had a lower number of sleeping rooms, their household sizes were generally lower than for male-headed households as was shown in Table 1. The households headed by male which tend to be better off, also tended to have more household members. But the female-headed households tended to be smaller. The rooms/tukuls in male-headed households were not many enough to reduce on overcrowding.

Table 4: Mean number of persons sleeping in a room/tukul by some background variables

Factors	Number	Mean	Statistics
Mean room density by state			
Upper Nile	932	4.1	$F_{9,9278,0.000} = 78.2$
Jonglei	899	3.8	
Unity	832	4.5	
Warrap	928	4.6	
Northern Bahr el Ghazal	981	3.8	
Western Bahr el Ghazal	943	3.5	
Lakes	922	4.6	
Western Equatoria	941	2.8	
Central Equatoria	961	3.2	
Eastern Equatoria	949	4.2	
South Sudan	9,288	3.9	
Mean room density by wealth index			
Poorest	1,702	4.7	$F_{4,9283,0.000} = 100.5$
Second	1,912	4.1	
Middle	1,991	3.7	
Fourth	1,995	3.5	
Richest	1,688	3.4	
Mean room density by residence			
Urban	2,404	3.7	$F_{1,9286,0.000} = 24.8$
Rural	6,884	4.0	
Mean room density by sex of household heads			
Males	8,310	4.0	$F_{1,9286,0.000} = 70.1$
Females	978	3.3	
Total	9,288	3.9	

Chapter Four

Water and Sanitation

4.1 Introduction

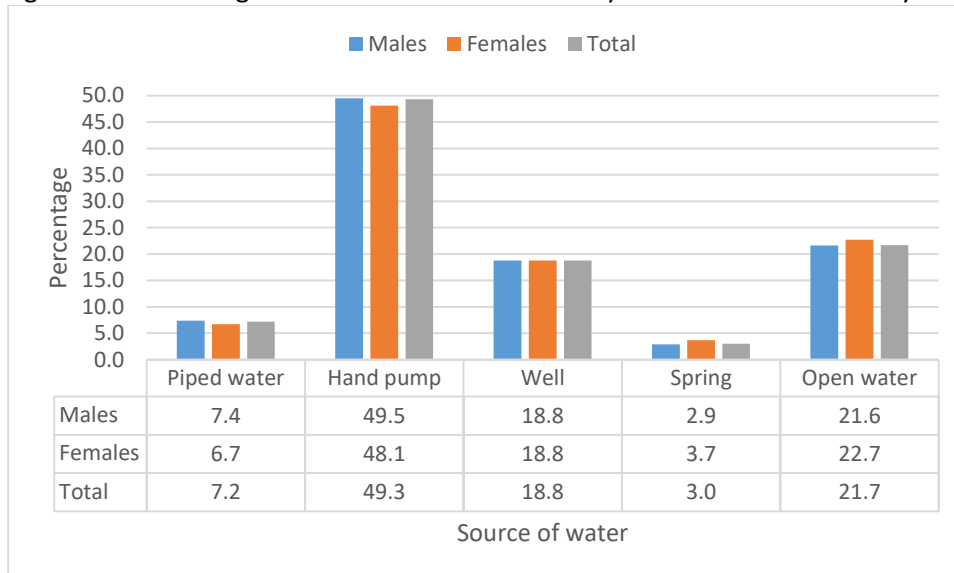
Safe water and adequate sanitation is critical for health reasons as well as for economic development. Safe water and good sanitation facilities lead to improved health status of the household members and therefore, reduce expenditure on health as well as time spent unproductive because of sickness or caring for the sick. Good health will increase economic activities of the household members. The availability of water will reduce time spent on collecting water and, therefore, releasing time for other activities.

The study solicited information on the sources of water consumed by the households and whether the households make the water safer for drinking. It also solicited information on the availability of toilet facilities in the households. These are presented by sex of household heads.

4.2 Water used by the households

Main sources of water used by the households were identified and cross-tabulated by sex of household heads. This is presented in Figure 14 which shows that the majority of the households consume water from hand pumps (49.3%) followed by open water (21.7%) and wells (18.8%).

Figure 14: Percentage distribution of households by main source of water by sex of household head

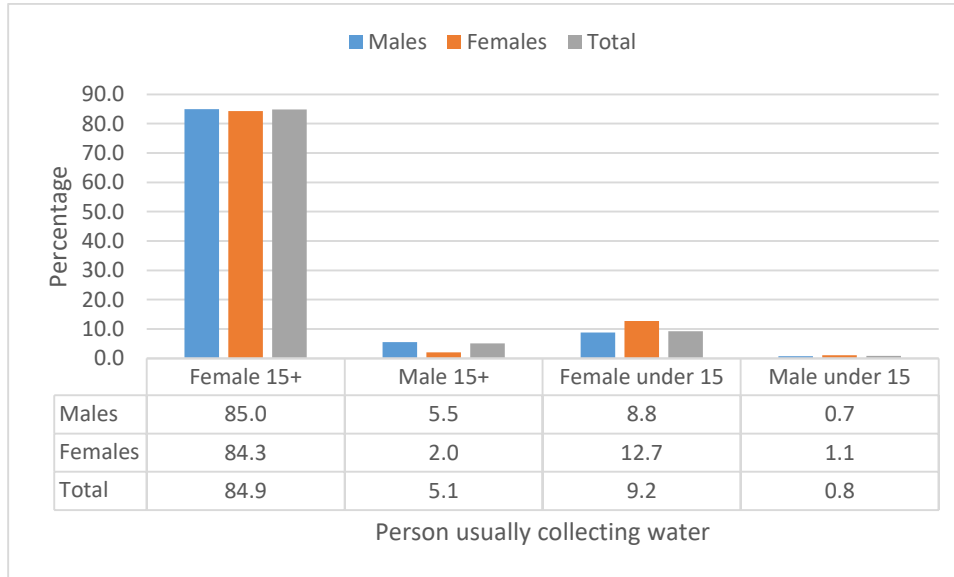


Open water are such sources as rivers, lakes and ponds. There was also a question on who usually collects water. This was tabulated by sex of household heads and is presented in Figure 15. The figure shows that the burden of collecting water rests on female members of the households. Overall, adult females were responsible for collecting water. This constituted 84.9%. This was followed by young females (9.2%). Just over 5% of those who usually collect water for home consumptions are adult males and 0.8% was young males.

This pattern is the same for the households either headed by males or females except that the percentage of males who collect water was higher in the households headed by males than by females.

It was 6.9% for adult males and 2.9% for households headed by females. For young males, it was 0.9% for those in the households headed by males and 0.6% fir households headed by females.

Figure 15: Percentage distribution of households by person who usually collects water by sex of head of household



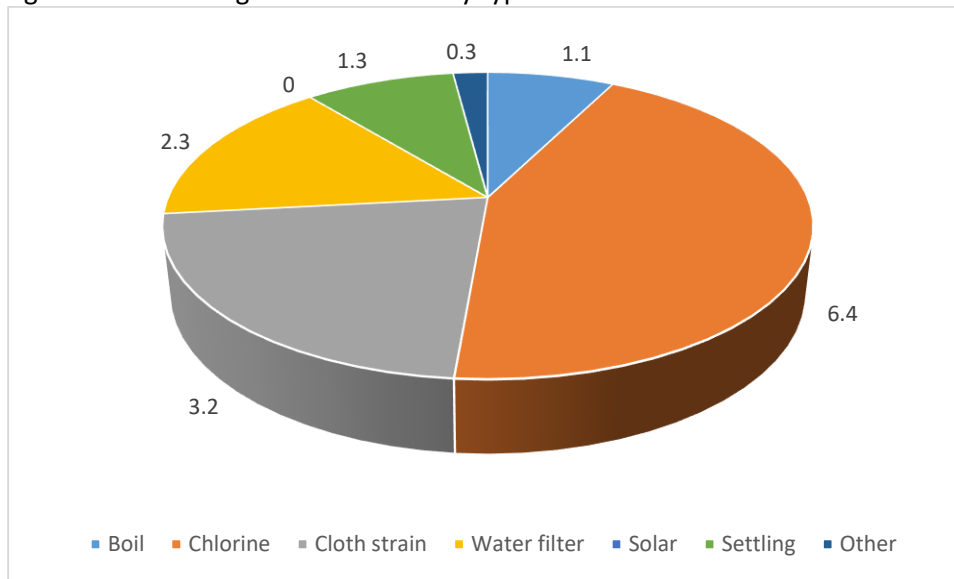
4.2.1 Treatment of water

Of the five sources used by the households, piped water and water from hand pump are regarded as safe for drinking. These sources may only become unsafe if the borehole is near pit latrines or if the pipes are broken so as to allow sewage into the water system. Households which reported these as their main source of drinking water are excluded from water treatment questions. In all, 4,074 households were used in the water treatment concerns. Of these, 3,629 households were headed by men and 445 were headed by women.

Households were asked whether they treated the water to make it safer for drinking. Overall, only 13.2% of the households treated water. Only 10.6% of the female-headed households compared to 13.5% of the male-headed households reported that they treated water for drinking. On the type of water treatment, Figure 8 shows that the most common treatment was adding chlorine reported by 6.4% of the households and it was followed by filtering with cloth (3.2%), water filter (2.3%), settling down (1.3%) and boiling water (1.1%).

We should observe that of these methods, only boiling, adding bleach/chlorine and solar disinfection are effective ways of making water safer for drinking. Making water clean does not make it safe for drinking. Water should be effectively treated to kill the bacteria that may infect people. Households should be advised to effectively treat water. It is important that those using safe sources should also be advised to treat their water. This is especially so for boreholes which are drilled in populated areas.

Figure 16: Percentage of households by type of water treatment



Households headed by men were more likely to add chlorine (6.5%) or strain through cloth (3.2%) and water filter (2.6%). Of these, only adding of chlorine makes water safer for drinking. For households headed by females, 6.1% added chlorine and 3.8% strained water through cloth.

Figure 17: Percentage distribution of households by type of water treatment by sex of head

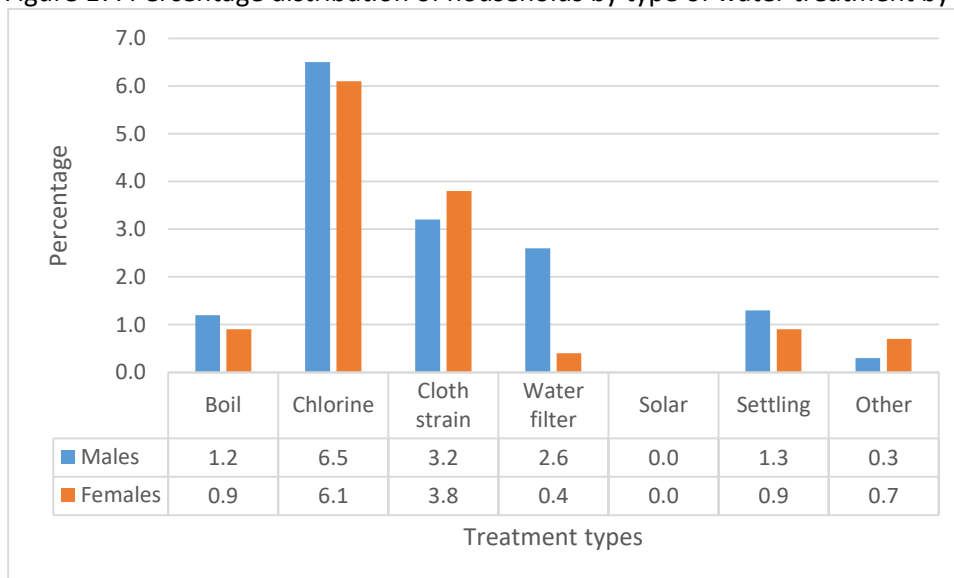
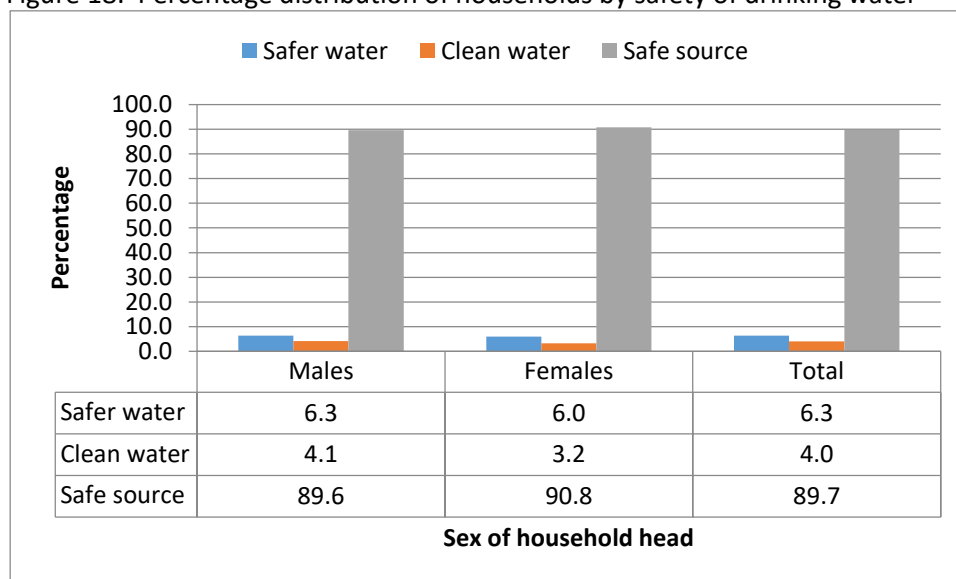


Figure 18 shows that overall, 89.7% consumed water from safe source. Just over 6% made water safer for drinking but 4.0% only made water clean. By sex of household heads, 6.3% of the male headed households made water safe. The corresponding figure for female headed households was 6.0%. Over 4% of the households headed by males made water clean. The corresponding figure for female-headed households was 3.2%.

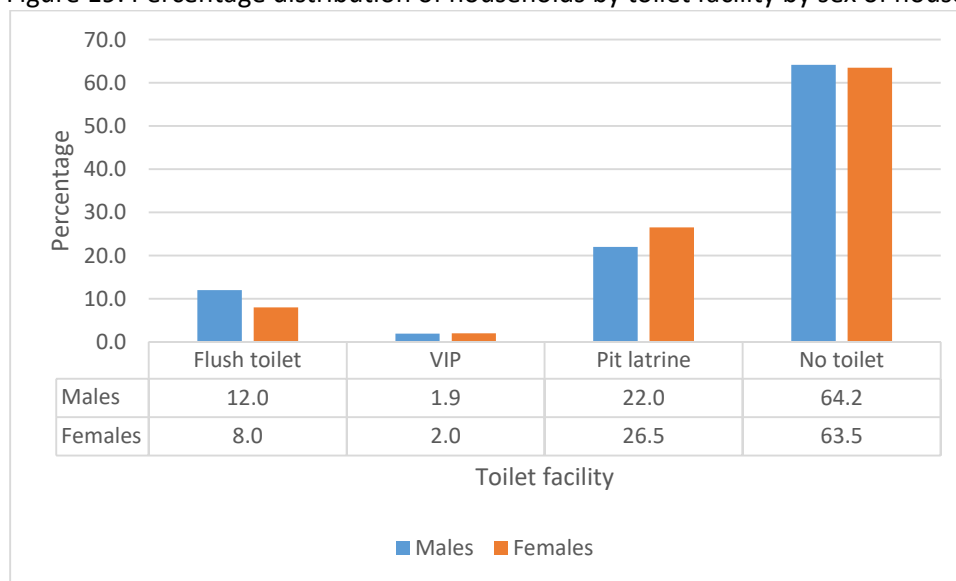
Figure 18: Percentage distribution of households by safety of drinking water



4.3 Toilet facilities

The households were asked the toilet facility that they used. The figure shows that overall, 64.1% of the households do not have any toilet facility. Just 22.5% are using pit latrines while 1.9% are using ventilated improved pits and 11.5% were using flush toilets. Within the sex, 63.5% of the female-headed households had no latrine facilities. The corresponding figure for male-headed households was 64.2%. Over 26% of the female-headed households were using pit latrine. The corresponding figure for the male-headed households was 22.0%. We see that 2.0% of the female-headed households were using VIP. The corresponding figure for male-headed households was 1.9%. Eight percent of the female-headed households used flush toilets. The corresponding figure for male-headed households was 12.0%.

Figure 19: Percentage distribution of households by toilet facility by sex of household head



Those who reported having toilet facilities were asked whether they shared the toilets with other families. The figure shows that 44.2% of the households shared the toilets. Sharing was more common in the female-headed households (47.7%) than in the male-headed households (41.7%).

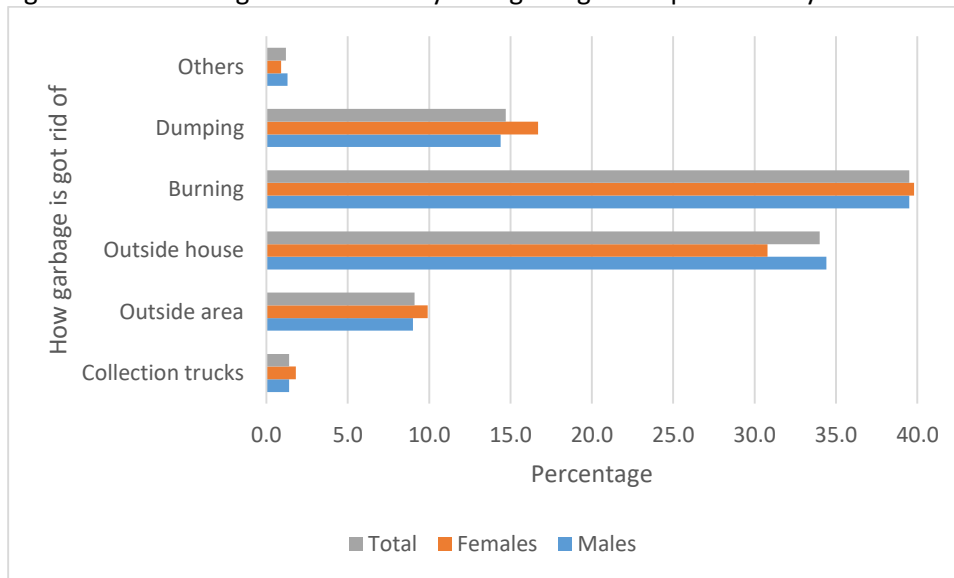
They were asked with whom they shared toilet facilities. Overall, 51.5% of the households shared toilets with other households. About 49% used public toilets. Female-headed households were more likely to share public toilets (56.6%) compared to male-headed households (42.3%).

3.5 Garbage collection

Safe dumping of household waste is important in ensuring good health to the household members. Safe dumping of garbage also sustains environment. The respondents were asked how they got rid of household garbage. This was cross-tabulated by sex of household heads. Overall, 39.5% of the households burn their household wastes. Another 34.0% dump outside their houses. About 15% dump within the household premises. Just over 9% take to a dump outside the residential areas and 1.4% used the collection trucks.

Burning is common in the country being practiced by 40.1% of the female-headed households and 39.1% of the male-headed households and is followed by dumping outside the house which was reported by 33.5% of female-headed households and 34.4% of male-headed households. We can conclude that there is no significant difference between the practices of the households by sex of household heads.

Figure 20: Percentage distribution by how garbage is disposed off by sex of head of household



Chapter Four

Gender Issues

4.1 Introduction

This chapter presents the analysis of some issues which affect men and women differently. These are some cultural practices like female genital mutilation, adolescent marriage, domestic violence and health seeking practices.

4.2 Female genital mutilation

Male circumcision is healthy. It is even reported that it helps control the transmission of HIV. On the other hand, female circumcision is detrimental to the health of a woman. Moreover, it removes or reduces the pleasure of sexual intercourse. It also eliminates the urge for sex; possibly the main reason why it was imposed on women.

The male respondents were asked if they were circumcised. Fifty three percent of them reported that they were. Those who were not circumcised were asked if they would accept to be circumcised. The acceptance was reported by 17.1% of the respondents. But 82.9% would not accept to be circumcised.

They were also asked if they had ever heard of female circumcision. Those who reported having heard was 48.5% of the respondents. The respondents who reported that they had not heard were asked if they had ever heard of female genital cutting. This was heard by 12.8% of them.

Asked whether the practice should continue, 13.6% wanted the practice to continue but 75.3% would want it discontinued and 11.1% did not have a definite answer. The same question was also put to female respondents. Only 2.8% wanted it to continue and 79.0% wanted it discontinued. Over 18% of the female respondents did not have a definite answer.

Women who had daughters were asked whether they intended to circumcise them. Only 4.1% reported they would. The percentage of those who would not was 94.5% and 1.4% were not decided.

4.2 Gender and adolescence

4.2.1 Adolescent marriage

Adolescent marriage restricts children from acquisition of skills. This is associated with lack of gainful economic activity and adequate knowledge to manage a healthy family. Table 5 presents the records of household members who were 12-19 years old by their marital status. The table shows that although marriage is common to both adolescent boys and girls, it is more prevalent with adolescent girls. At age 17, only 6.3% of the males would be in union and another 1.1% would have dissolved the marriage. The corresponding figures for females were 32.1% in union and 2.5% in marriages dissolved. At the age of 18, only 7.7% of the males would be in union with another 1.2% with their marriages dissolved. The table shows that at 18 years of age, 47.7% of the females would be in union with another 4.5% with their marriages dissolved.

We also see that at age 19, only 9.9% of the males would be in union and 1.3% of them would have left the marriages. On the other hand, at 19 years old, upto 64.6% of the females would have been in union and 4.8% of them would have left the marriages.

Table 5: Percentage distribution of adolescents by marital status by age by sex

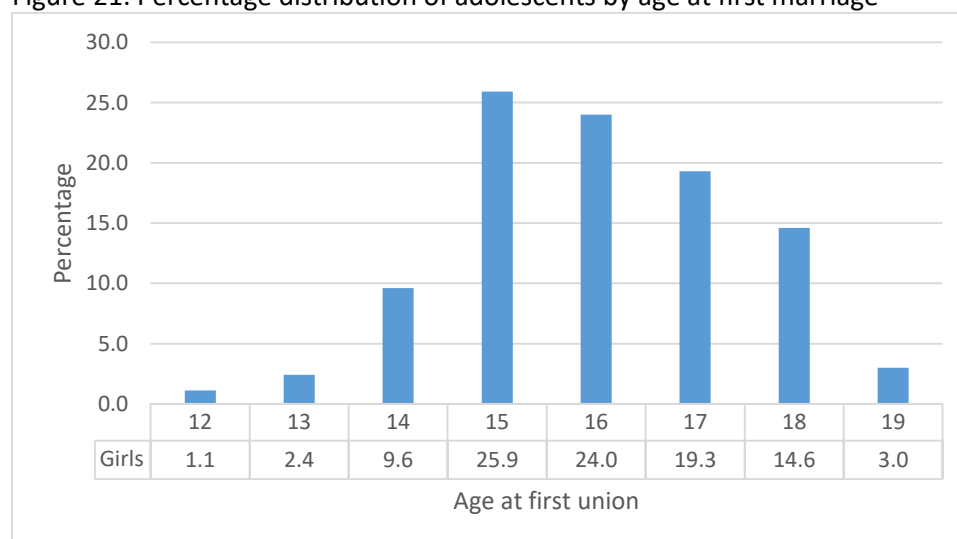
Age	Males			Females		
	Never married	In union	Ever married	Never married	In union	Ever married
12	97.7	2.1	0.2	98.7	1.3	0.0
13	98.1	1.9	0.0	97.5	2.3	0.2
14	97.1	2.7	0.2	96.0	3.8	0.3
15	96.9	3.1	0.0	89.5	9.2	1.3
16	93.7	6.0	0.3	78.2	19.6	2.1
17	93.6	6.3	1.1	65.4	32.1	2.5
18	91.2	7.7	1.2	47.7	47.7	4.5
19	88.8	9.9	1.3	30.6	64.6	4.8

While marriage is a very good institution, timing of entry is very important. The table also shows that the girls are looking above their ages for their spouses.

4.2.2 Age at first union

The women were asked at what age they first got married. This is presented in Figure 21 for women who were 15-19 years at the time of the survey. The figure shows that most of the marriages took place between the ages of 15 and 18. About 10% married at age 14. About 26% of them got married at age 15 while 24.0% got married at age 16 and 19.3% at age 17. This shows that the majority of the marriages for the girls take place when still undr-aged.

Figure 21: Percentage distribution of adolescents by age at first marriage

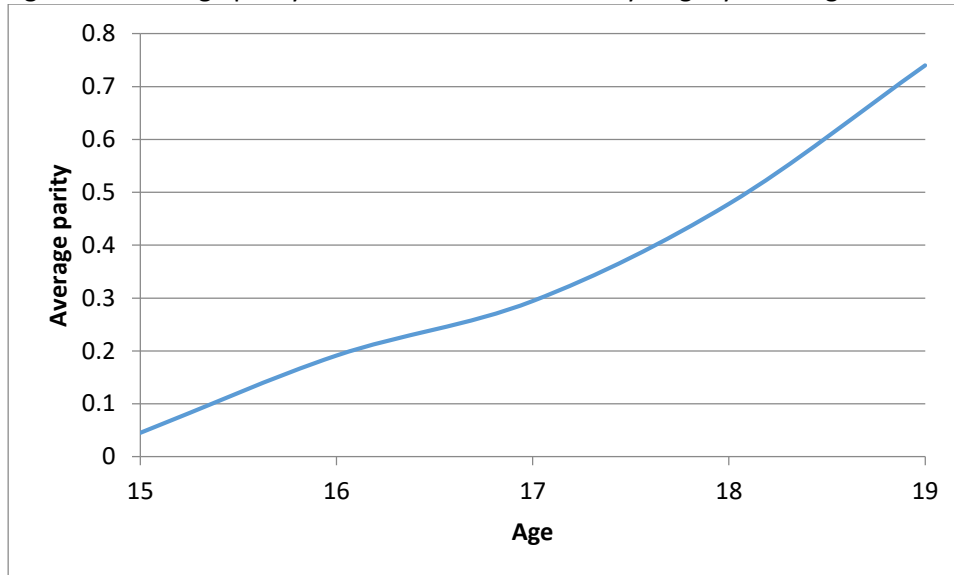


4.2.3 Child bearing in adolescence

The average number of children ever born is presented in Figure 22 which shows that the young women 15 years old would have on average 45 children per 1,000 women. This figure rapidly quadrupled to 191

children per 1,000 women at age 16. It increases to 294 children per 1,000 women in age 17. The corresponding figure for age 18 was 478 children per 1,000 women and it was 740 children per 1,000 women at age 19.

Figure 22: Average parity of the adolescents 15-19 by single year of age



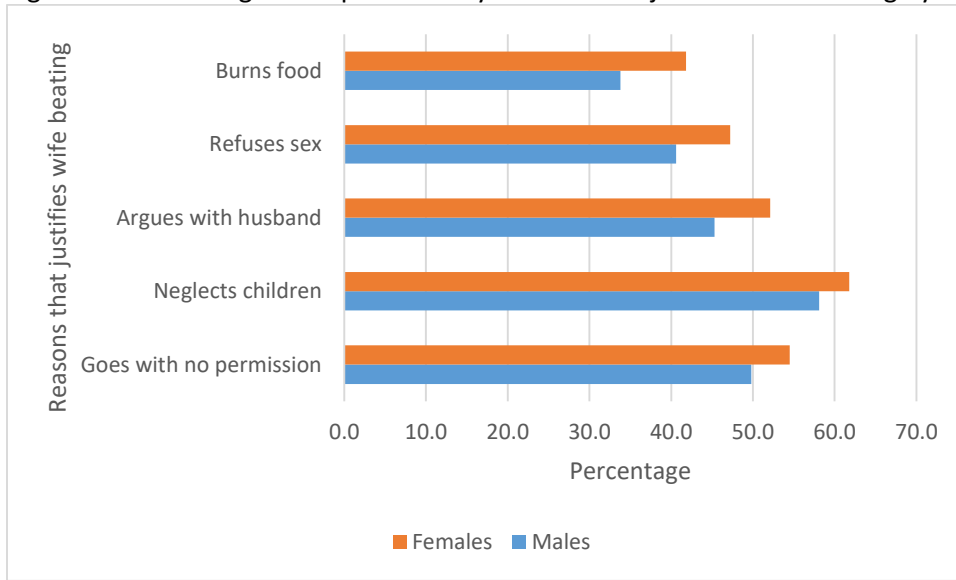
4.3 Domestic violence

Wife beating is obviously violence against women but this violence seems to be taken for granted. Five reasons that could attract wife beating were listed to the respondents. Interestingly, female respondents seem to support wife beating for these reasons more than male respondents.

They were asked whether a woman who goes out without telling a husband should get a beating from the husband. About 50% of the male respondents agreed with that. The corresponding figure for the females was 54.5%. On neglecting children, 58.1% of the male respondents agreed that such a woman should be beaten. The corresponding figure for the female respondents was 61.8%. A beating because of arguing with a husband was supported by 45.3% of the male respondents. The percentage for the female respondents that supported it was 52.1%.

There are many reasons why a woman may refuse sex with a husband. One may be sickness, getting disagreement or no desire for sex at that time. But here 40.6% of the male respondents agreed with the beating. The corresponding figure for females was 47.2%. Beating a woman if she burns food was supported by 33.8% of the males and 41.8% of the female respondents. As stated earlier, the females seem to support wife-beating for these reasons more than their counterparts.

Figure 23: Percentage of respondents by reasons that justifies wife beating by sex



Women were asked whether, in the last one year, they were beaten for such reasons. Twenty one percent of the women reported that they have ever been beaten. The male respondents were also asked if they had, in the last one year, ever beaten their wives for such reasons or any other related ones. Seventeen percent of them had ever beaten their wives.

Wife beating is detrimental to the growth of economy. To the worst extent, it may lead to loss of human resource. Other impact is reduced capacity of the person as a result of disability. Wife beating was crosstabulated by state. To gauge the extent of the prevalence between the states, an average was computed. This is presented in Figure 24. The figure shows that, as reported by men, domestic violence is highest in Jonglei (27.4%) followed by Eastern Equatoria (24.2%), Western Equatoria (21.1%), Unity (18.3%) and Upper Nile (17.4%).

From the report by women, Upper Nile led with 28.4% followed by Jonglei and Eastern Equatoria (28.0%), Unity (26.0%) and Western Equatoria (21.3%). These figures show that wife beating is most common in the Greater Upper Nile and Greater Equatoria except in Central Equatoria.

The average shows that wife beating is highest in Jonglei (27.7%) followed by Eastern Equatoria (26.1%), Upper Nile (22.9%), Unity (22.2%) and Western Equatoria (21.2%). It is lowest in Central Equatoria (12.4%) followed by Warrap (12.7%), Western Bahr el Ghazal (15.9%), Lakes (16.5%) and Northern Bhar el Ghazal (16.7%).

Figure 24: Percentage distribution of respondents by whether wife was beaten by state by sex

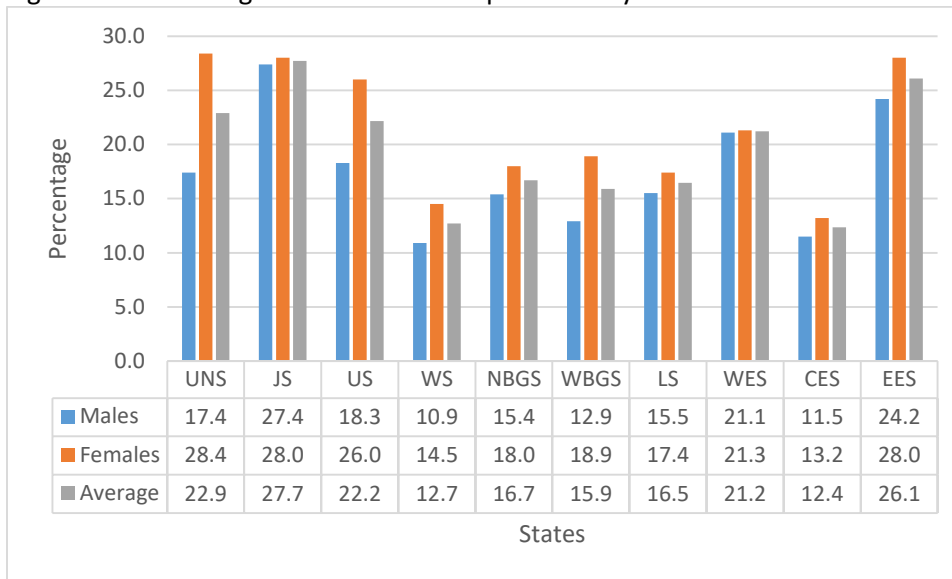
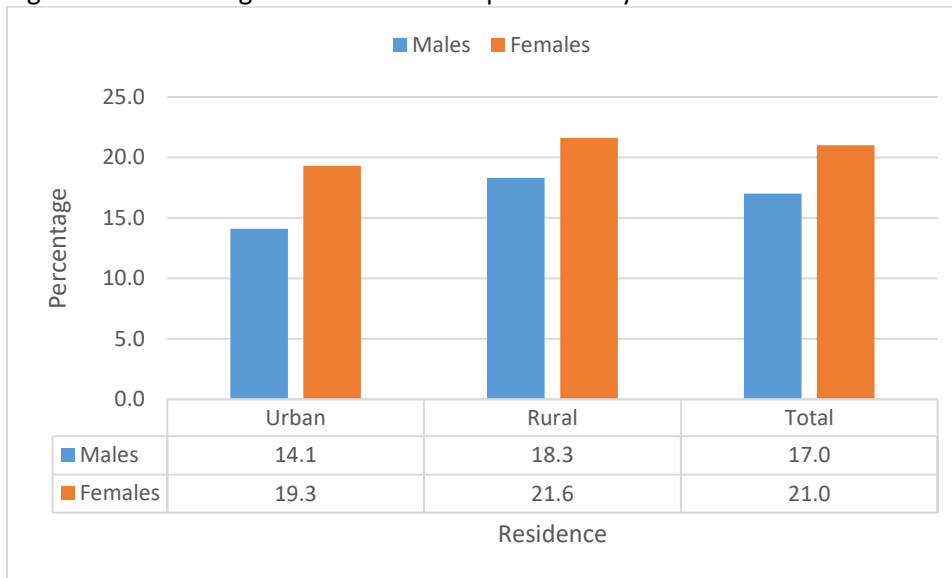


Figure 25 shows that wife beating is most common in rural areas. Over 18% of the males in rural areas reported beating their wives in the last one year to the survey. This was reported by only 14.1% of the males in the urban areas. About 22% of the women in the rural areas reported being beaten in the last one year. The corresponding figure for those from urban areas was 19.3%. The difference between the males and females may arise due to polygamy as many women will report beatings by one man.

Figure 25: Percentage distribution of respondents by whether wife was beaten by residence by sex

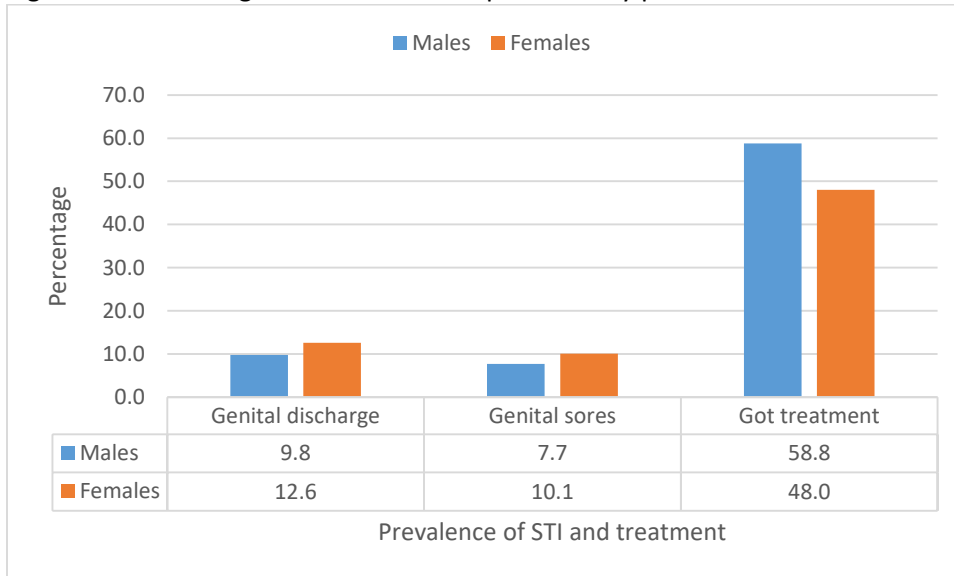


4.4 Health seeking behaviour

Questions were asked about sexually transmitted infections in the last one year. Overall, 14.4% of the females reported having infections. The corresponding figure for males was 11.2%. They were asked whether they ever passed abnormal genital discharge in the last one year. A higher percentage of

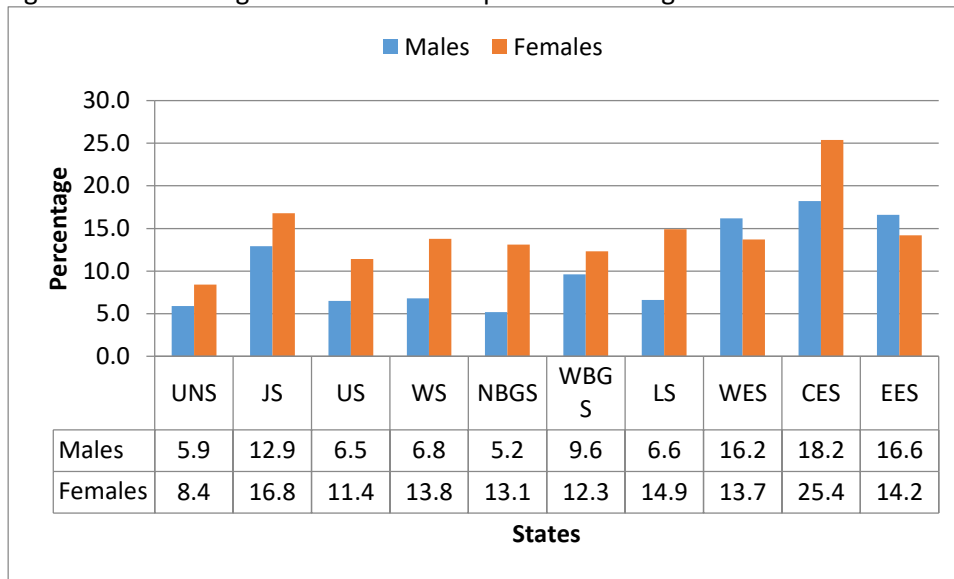
women had ever passed the discharge (12.6%) compared to males (9.8%). They were also asked if they ever had genital sore or ulcers. Again a higher percentage of females (10.1%) reported this as compared to males (7.7%). The figure also shows that health seeking is poorer for women. Although a higher proportion of the women got infected, only 48.0% of those who got infected sought treatment as compared to 58.8% of the men.

Figure 26: Percentage distribution of respondents by prevalence of STIs and treatment by sex



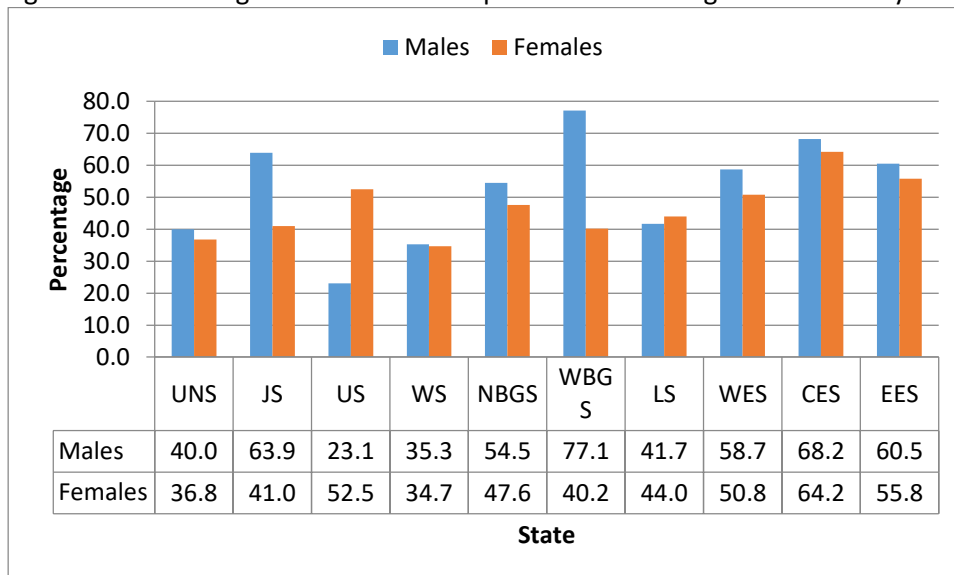
The two types of sexually transmitted infections were combined into one measure of having ever got infection in the last one year. This is presented in Figure 27 and it shows that, considering males, the highest level of infection was exhibited by Central Equatoria (18.2%) followed by Eastern Equatoria (16.6%), Western Equatoria (16.2%) and Jonglei (12.9%). The prevalence was lowest in Northern Bahr el Ghazal (5.2%) followed by Upper Nile (5.9%). Considering female respondents, Central Equatoria still leads with 25.4% followed by Jonglei (16.8%), Lakes (14.9%) and eastern Equatoria (14.2%). The infection was least reported in Upper Nile (8.4%) followed by Unity (11.4%) and Western Bahr el Ghazal (12.3%).

Figure 27: Percentage distribution of respondents who got infected with STIs



They were also asked whether they sought treatment for their infection. As already mentioned, 58.8% of the males reported having sought treatment. The corresponding figure for females was 48.0%. It can be seen that a higher percentage of women reported having infection. But when it comes to treating the infection, a higher percentage of men did so. For men, treatment was highest in Western Bahr el Ghazal (77.1%) followed by Central Equatoria (68.2%), Jonglei (63.9%) and Eastern Equatoria (60.5%). For women, treatment seeking was highest in Central Equatoria (64.2%) followed by Eastern Equatoria (55.8%), Unity (52.5%) and Western Equatoria (50.8%).

Figure 28: Percentage distribution of respondents who sought treatment by state by sex



The main concern here is that women are less likely to seek treatment as men. Only comprehensive treatment will eradicate STIs. Partial treatment will still result in re-infection. This can best be done by encouraging the infected to go for treatment with their partners/spouses or by having mobile treatment

centres in the villages and encouraging the infected together with their spouses/partners to seek treatment.

4.5 Presence of mosquito nets

Malaria is a leading cause of morbidity and mortality in children under the age of five in South Sudan (MoH and NBS, 2013). Pregnant women are also vulnerable as it can cause pregnancy losses. But the prevalence can be dramatically reduced by sleeping under mosquito nets or receiving prompt and appropriate diagnosis and treatment.

The propagating factor is that a very large part of South Sudan is marshy and there are a number of water bodies which are fertile ground for the breeding of mosquitoes. During rainy seasons, a good proportion of the country especially in the Greater Upper Nile and Greater Bahr el Ghazal flood creating more breeding grounds for mosquitoes that carry malaria parasites.

Sleeping under a mosquito net is a very effective way of reducing risk of getting infected with malaria fever. There were questions about ownership of mosquito nets and sleeping under the nets. Overall, 52.5% of the households had mosquito nets. By sex of household heads, 52.7% of the households headed by males had mosquito nets. The corresponding percentage for female-headed households was 50.5%.

Table 6: Mean number of mosquito nets by some background variables by sex of household head

Factors	Number	Mean	Statistics
Mean number of mosquito nets by state			
Upper Nile	949	1.7	$F_{9,9359,0.000} = 42.3$
Jonglei	912	1.8	
Unity	840	1.4	
Warrap	935	0.8	
Northern Bahr el Ghazal	982	2.0	
Western Bahr el Ghazal	950	1.4	
Lakes	939	2.0	
Western Equatoria	944	3.0	
Central Equatoria	963	2.0	
Eastern Equatoria	955	2.5	
South Sudan	9,369	1.9	
Mean number of mosquito nets by wealth index			
Poorest	1,716	1.4	$F_{4,9283,0.000} = 209.1$
Second	1,926	1.3	
Middle	2,020	1.7	
Fourth	2,013	2.2	
Richest	1,694	2.8	
Mean number of mosquito nets by residence			
Urban	2,420	2.3	$F_{1,9367,0.000} = 78.3$
Rural	6,949	1.7	
Mean number of mosquito nets by sex of household heads			
Males	8,383	1.9	$F_{1,9368,0.000} = 9.4$
Females	986	1.6	
Total	9,369	1.9	

Those that had the nets were asked whether anyone slept under the nets the night before the survey. Overall, 47.9% of the households which had mosquito nets reported that some people slept under the nets. Interestingly, 0.7% of the respondents reported that they were not sure that somebody slept under the nets. By sex of household heads, only 45.4% of the households headed by females reported that somebody slept under the nets. The corresponding figure for male-headed households was 48.1%.

These findings reveal that although households have mosquito nets, sometimes they are not used and therefore, they do not endeavor to control the spread of malaria fever. And the tendency not to sleep under the nets is more common in households headed by females.

Mean number of nets in the households were calculated by some background variables and is presented in Table 6. The table shows that Western Equatoria had the highest mean number of nets (3.0) and is followed by Eastern Equatoria (2.5), Northern Bahr el Ghazal, Lakes and Central Equatoria each at 2.0. Warrap had the lowest mean number of mosquito nets (0.8) followed by Western Bahr el Ghazal and Unity each at 1.4. If we recall that the average family size was 6.0 and the overall mean number of mosquito nets was 1.9, we may deduce that a number of people are not sleeping under mosquito nets. By wealth index, we see that the mean number of nets seems to increase with increase in socioeconomic status. The table shows that the poorest group had an average of 1.4 nets and it was 1.3 for those in the second quintile. Thereafter, it increased to 1.7 for the segment in the middle quintile and further to 2.2 for those in the fourth quintile and to 2.8 nets for the richest group.

The table also shows that the mean number of nets is higher in urban areas (2.3) compared to rural areas (1.7). We see that the mean number of nets are higher in households headed by males (1.9) compared to households headed by females (1.6).

Chapter Six

Summary of findings, Conclusions and Recommendations

6.1 Introduction

This study tries to establish the influence of gender on the housing conditions. This is done by relating the outcome variables to the sex of household heads. This chapter presents the summary of findings and the conclusions that arise from them as well as the policy recommendations arising from these conclusions.

6.2 Summary of findings

6.2.1 Background

The study found that 10.5% of the households were headed by women. These were women who reported that they either, never married, widowed, divorced or separated. The proportion of households headed by women was highest in Western Equatoria, Western Bahr el Ghazal, Jonglei, Central Equatoria and Eastern Equatoria.

Over 87% of the female heads of households did not attain any formal education. About 11% attained primary level of education. Two percent attained secondary education and 0.2% attained university education. On the other hand, 65.7% of the male heads of households did not attain any formal education. About 21% had primary education and 11.9% had secondary education while 1.7% had university education.

Only 8.9% of the female household heads had paid employment. About 12% were self employed and 18.5% were subsistence farmers while 44.3% reported that they were not working. Over 25% of male heads were on paid employment and 15.3% reported that they were self employed. About 27% were subsistence farmers and 32.4% reported that they were not working.

The overall household size in the sample was 6.0 persons. This was higher for households headed by men (6.1) than those headed by women (4.9). Interestingly, it was higher for urban households (6.3) than rural households (5.9). Expectedly, the household size tended to increase with the level of socioeconomic status of the households although the poorest households had higher than most of the levels except the richest group. This is also expected; the poor usually have less education and usually have higher fertility.

6.2.2 Female genital mutilation

Asked whether the practice should continue, 13.6% of the male respondents wanted the practice to continue but 75.3% would want it discontinued and 11.1% did not have a definite answer. Only 2.8% of the female respondents wanted it to continue and 79.0% wanted it discontinued. Over 18% of the female respondents did not have a definite answer.

Only 4.1% of the women reported they would circumcise their daughters. The percentage of those who would not was 94.5% and 1.4% were not decided.

6.2.3 Household conditions

Radio sets were the most common items owned by households followed by telephones and TV sets. Over 23% of the male-headed households owned phones. This was owned by 16.3% of female-headed households. About 29% of the male-headed households owned bicycles. This was owned by 15.8% of the female-headed households. Higher percentage of male-headed households owned motorcycles and cars.

Ownership of household animals was found to be even between the male and the female-headed households.

6.2.3.1 Housing units

Most of the housing units in 2010 were poor. About 86% of the materials for the floor was earth. Only 2.3% of the floor was modern. About 3% of houses in the households headed by men had modern floors. On the other hand, only 1.9% of houses in the households headed by women had modern floors.

Overall, 69.3% of the roofs was grass thatched. Over 69% of the households headed by males was thatched. The figure for female-headed households was 68.0%. About 16% of the households headed by females was modern. The corresponding figure for male-headed households is 14.3%. Poor wooden materials were common to both male and female-headed households.

About 22% of the walls were poor materials like plastic sheets and 56.0% were local materials. Only 16.3% were modern.

Overall, the mean number of rooms/tukuls belonging to the households was 2.4. This was larger for households headed by males (2.4) than in the households headed by females (2.2). The mean number of rooms/tukuls was larger for households living in urban areas (2.7) than rural households (2.3). The mean number of rooms/tukuls increases with increasing level of socioeconomic status of the households. It was 2.0 for the poorest segment of the population and 3.1 for the richest segment of the population.

On average, the mean number of rooms/tukuls used for sleeping was 1.8. It was 1.8 for households headed by males and 1.7 for households headed by females. The average number of tukuls was higher in urban areas (2.0) than in rural areas (1.7). The number of rooms/tukuls used for sleeping tended to increase with increasing socioeconomic status of the households. It was 1.5 for the poorest segment and 2.4 for the richest segment of the population.

The overall number of persons per room/tukul was 3.9. The average number of persons in male-headed households was 4.0. This was higher than in the female-headed households (3.3). Overcrowding was more common in the rural areas (4.0). It was 3.7 persons per room/tukul in urban areas. It was also more common in the poorest households. This progressively reduced from 4.7 persons per room/tukul in the poorest segment until 3.4 persons per room/tukul in the richest segment of the population.

6.2.3.2 The kitchens

Most of the cooking was done outdoors followed by separate rooms and some space in the houses. Firewood was the most common fuel used for cooking. This was used by 83.1% of the male-headed households and 81.5% of the female-headed households. Charcoal was used by 13.0% of the

households. Within the sexes of the heads of households, 15.3% of the female-headed households used charcoal. This was used by 12.7% of the households headed by males. Modern fuel; electricity, gas and kerosene, was rare. Only 0.4% of the households used modern fuel. This was used by 0.4% of male-headed households and 0.3% of the households headed by females.

6.2.3.3 Household water

The majority of the households consumed water from hand pumps (49.3%) followed by open water (21.7%) and wells (18.8%). For those who did not have piped water or consumed water delivered by water tankers, 84.9% of those who usually collect water were females 15 years or over. Only 5.1% were males 15 years or over and 0.8% were males under 15 years.

Overall, only 13.2% of the households treated water. Only 10.6% of the female-headed households and 13.5% of the male-headed households reported treating water. Even then, the households who reported straining water through cloth, using water filter or settling water are only making water clean not safer for drinking. Only those who reported boiling water, adding chlorine/bleach or using solar disinfection were effectively making water safer for drinking.

We also note that some boreholes are drilled in populated areas where residents use pit latrines. This may make water unsafe for drinking. Such households should be advised to treat their water.

6.2.3.4 Toilet facilities

Overall, 64% of the households did not have any toilet facilities. About 23% were using pit latrines while 1.9% were using VIP and 11.5% were using flush toilets. Asked whether they were sharing these facilities with other families, 44.2% reported sharing. Sharing was more common among female headed households. Overall, 51.5% of the households with toilet facilities shared with other households. About 49% of them used public toilets. Female-headed households were more likely to share public toilets (56.6%) than male-headed households (42.3%).

We note that although 35.9% of the households in the survey reported having toilet facilities, 44.2% of them shared the facilities meaning that many who reported having toilet facilities do not have household facilities with all its inconveniences.

6.2.4 Gender and adolescence

Although marriage is common to both adolescent boys and girls, it is more prevalent with adolescent girls. At age 17, only 6.3% of the males would be in union. The corresponding figures for females was 32.1%. At the age of 18, only 7.7% of the males would be in union with another 1.2% with their marriages dissolved but 47.7% of the females would be in union with another 4.5% with their marriages dissolved.

We also see that at age 19, only 9.9% of the males would be in union but 64.6% of the females would have been in union and 4.8% of them would have left the marriages.

6.2.4.1 Child bearing in adolescence

Young women 15 years old would have on average 45 children per 1,000 women. This figure rapidly quadrupled to 191 children per 1,000 women at age 16. It increases to 294 children per 1,000 women in age 17. The corresponding figure for age 18 was 478 children per 1,000 women and it was 740 children per 1,000 women at age 19.

6.2.5 Domestic violence

About 50% of the male respondents agreed with that husbands should beat their wives who go without telling them. The corresponding figure for the females was 54.5%. On neglecting children, 58.1% of the male respondents agreed that such a woman should be beaten. The corresponding figure for the female respondents was 61.8%. A beating because of arguing with a husband was supported by 45.3% of the male respondents. The percentage for the female respondents that supported it was 52.1%.

About 41% of the male respondents agreed with the beating for refusing sex. The corresponding figure for females was 47.2%. Beating a woman if she burns food was supported by 33.8% of the males and 41.8% of the female respondents. As stated earlier, the females seem to support wife-beating for these reasons more than their counterparts.

Twenty one percent of the women reported that they have ever been beaten. Seventeen percent of the male respondents had ever beaten their wives.

Wife beating was highest in Jonglei (27.7%) followed by Eastern Equatoria (26.1%), Upper Nile (22.9%), Unity (22.2%) and Western Equatoria (21.2%). It was lowest in Central Equatoria (12.4%) followed by Warrap (12.7%), Western Bahr el Ghazal (15.9%), Lakes (16.5%) and Northern Bahr el Ghazal (16.7%).

Wife beating was most common in rural areas. Over 18% of the males in rural areas reported beating their wives in the last one year to the survey. This was reported by only 14.1% of the males in the urban areas. About 22% of the women in the rural areas reported being beaten in the last one year. The corresponding figure for those from urban areas was 19.8%.

6.2.6 Health seeking behavior

The highest level of infection in the male respondents was exhibited by Central Equatoria (18.2%) followed by Eastern Equatoria (16.6%), Western Equatoria (16.2%) and Jonglei (12.9%). The prevalence was lowest in Northern Bahr el Ghazal (5.2%) followed by Upper Nile (5.9%). Central Equatoria still leads even for females with 25.4% followed by Jonglei (16.8%), Lakes (14.9%) and Eastern Equatoria (14.2%). The infection was least reported in Upper Nile (8.4%) followed by Unity (11.4%) and Western Bahr el Ghazal (12.3%).

Asked whether they sought treatment, 58.8% of the males reported having sought treatment. The corresponding figure for females was 48.0%. It can be seen that a higher percentage of women reported having infection but when it comes to treating the infection, a higher percentage of men did so. For men, treatment was highest in Western Bahr el Ghazal (77.1%) followed by Central Equatoria (68.2%), Jonglei (63.9%) and Eastern Equatoria (60.5%). For women, treatment seeking was highest in Central Equatoria (64.2%) followed by Eastern Equatoria (55.8%), Unity (52.5%) and Western Equatoria (50.8%).

6.2.7 Presence of mosquito nets

Overall, 52.5% of the households had mosquito nets. By sex of household heads, 52.7% of the households headed by males had mosquito nets. The corresponding percentage for female-headed households was 50.5%.

Overall, 47.9% of the households which had mosquito nets reported that some people slept under the nets. By sex of household heads, only 45.4% of the households headed by females reported that somebody slept under the nets. The corresponding figure for male-headed households was 48.1%.

Western Equatoria had the highest mean number of nets (3.0) and was followed by Eastern Equatoria (2.5), Northern Bahr el Ghazal, Lakes and Central Equatoria each at 2.0. Warrap had the lowest mean number of mosquito nets (0.8) followed by Western Bahr el Ghazal and Unity each at 1.4. If we recall that the average family size was 6.0 and the overall mean number of mosquito nets was 1.9, we may deduce that a number of people are not sleeping under mosquito nets.

By wealth index, we see that the mean number of nets seems to increase with increase in socioeconomic status. The poorest group had an average of 1.4 nets and it was 1.3 for those in the second quintile. Thereafter, it increased to 1.7 for the segment in the middle quintile and further to 2.2 for those in the fourth quintile and to 2.8 nets for the richest group.

The mean number of nets is higher in urban areas (2.3) compared to rural areas (1.7). Also, the mean number of nets were higher in households headed by males (1.9) compared to households headed by females (1.6).

6.3 Conclusions

The main concern here is that women are less likely to seek treatment as men. Only comprehensive treatment will eradicate STIs. Partial treatment will still result in re-infection.

Although some households have mosquito nets, sometimes they are not used and therefore, they do not endeavor to control the spread of malaria fever. And the tendency of not to sleep under the nets is more common in households headed by females.

The majority of the respondents did not support FGM. The support was highest among the men.

Adolescent marriage is more common among girls. This has its associated risks since early marriage mean low level of education and higher chance of child motherhood.

Although a large percentage of the population draw the water they consume from what can be regarded as safe source, some of these sources and in particular, the hand pumps are in highly populated areas. The boreholes are at times drilled with disregard to hygiene. You can find some boreholes within 30 metres of a pit latrine. This may make the source unsafe. Some households made water clean in the name of treating. Such process does not make water safe for drinking.

6.4 Recommendations

The infected should be encouraged to go for treatment with their partners/spouses or alternatively, government should have mobile treatment centres in the villages and encouraging the infected together with their spouses/partners to seek treatment.

Government should continue with its efforts in eliminating FGM practices and should continue to encourage children to stay in school. It should also address other issues that lead to school drop-out or non-start of schooling.

The households consuming water from boreholes drilled in populated areas should be advised to treat their water to make it safe for drinking. In general, the population should be advised to undertake effective treatment of water to make it safer for drinking.

References

Bongaarts J (2001): "Household Size and Composition in the Developing World in the 1990's" in Population Studies Volume 55, Number 3. Pp 263-279.

MoGC&SW (2013): National Gender Policy Strategic Plan, 2013-2018. Ministry of Gender, Child and Social Welfare. Republic of South Sudan.

MoH and NBS (2013): South Sudan Household Health Survey 2010. Final Report. August 2013. Ministry of Health and National Bureau of Statistics.

MoLA&CD (2011): Laws of South Sudan. The Transitional Constitution of South Sudan, 2011. Ministry of Legal Affairs and Constitutional Development. Republic of South Sudan.

Appendices

Table A. 1: Percentage distribution of households by ownership of some selected household items by sex of household head

	Males		Females	
	N	%	N	%
Electricity	284	3.4	23	2.3
Radio	2,770	33.0	202	20.5
Television	370	4.4	23	2.3
Non-mobile phone	379	4.5	20	2.0
Refrigerator	103	1.2	6	0.6
Computer	67	0.8	2	0.2
Internet	24	0.3	2	0.2
Digital receiver	117	1.4	6	0.6

Table A. 2: Percentage distribution of the households by how household garbage is got rid off by sex of household head

	Males	Females	Total
Collection trucks	1.4	1.8	1.4
Outside residential area	9.0	9.9	9.1
Outside the house	34.4	30.8	34.0
Burning	39.5	39.8	39.5
Dumping	14.4	16.7	14.7
Other	1.3	0.9	1.2

Table A. 3: Percentage distribution of the households by location of kitchen by sex of household head

	Males	Females	Total
Separate room	29.0	29.1	29.0
In the house	19.9	17.5	19.6
Separate building	8.6	8.0	8.5
Outdoors	41.4	44.5	41.7
Others	1.2	0.9	1.1

Table A. 4: Percentage of respondents by reasons that justify wife beating by sex

	Males	Females
Goes out without permission	49.8	54.5
Neglects children	58.1	61.8
Argues with husband	45.3	52.1
Refuses sex	40.6	47.2
Burns food	33.8	41.8