FACTORS INFLUENCING MODERN FAMILY PLANNING ACCEPTANCE IN A FAMILY HEALTH PROGRAMME AREA, BAGAMOYO DISTRICT, TANZANIA.

Submitted in Partial Fulfilment of the Requirements of the Degree of Masters of Science in Applied Human Nutrition of the University of Nairobi - Kenya

by

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Date: 31/9/1994

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DECLARATION

I Pulcheria W. Kaaya hereby declare that this thesis is my original work and has not been presented for a degree in any other University.

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DEDICATION

To my sweet daughters Lili-Pendo, Lulu-Tunu and Noela-Nuru. Your love, patience and understanding have always been the guiding light to my success.
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DEFINITIONS AND ABBREVIATIONS

Definitions

"Unyago" Traditional initiation ceremonies given to adolescent girls at onset of menstrual cycle in preparation for motherhood

Formal education: Conventional classroom schooling

Informal education: Casual instructions given outside the classroom

Traditional education: Customary instructions given by societal communities

Ten cell leader (TCL): A grassroot leader (in Tanzania) for an area containing at least 10 households (HH) whose HH leader
is a member of the ruling party (CCM).

Abbreviations

BF: Breastfeeding
CCM: Chama cha Mapinduzi
CDC: Centre for Disease Control
DANIDA: Danish International Development Agency
FAO: Food and Agriculture Organisation of the United Nations
FP: Family planning
FPP: Family Planning Programme(s)
GTZ: Deutsche Gesellschaft fur Technische (German Technical Cooperation Agency)
HH: Household
IUCD: Intra-Uterine Contraceptive Device
MCH: Maternal and Child Health
MFP: Modern Family Planning
MFPM: Modern Family Planning Methods
NFP: Natural Family Planning
NCSP: National Child Spacing Programme
NFHP: National Primary Health Project
TANU: Tanganyika African National Union
TAPA: Tanzania Parents Association
TFP: Traditional family planning
TFPM: Traditional Family Planning Methods
UN: United Nations
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ABSTRACT

The survey culminating in this thesis was carried out in a National Family Health Project (NFHP) area, Bagamoyo district where a total of 240 randomly selected women of reproductive age, 15-49 years were studied. The low acceptance of the modern contraceptives in the district where modern family planning was a component of the project (NFHP) prompted the study. A cross-sectional survey was therefore conducted with the aim of finding out the reasons for the low acceptance and so advice the bodies concerned accordingly.

The study findings revealed that there were underlying, intermediate and immediate problems that accounted for the low acceptance of the modern methods of contraception. These problems were socio-demographic and socio-cultural in nature. Education and some of the modern planning aspects also contributed to the low acceptance of the methods.

Offspring mortalities constituted the major socio-demographic characteristic which greatly affected modern contraception. Women with higher
numbers of offspring life losses tended to avoid the modern contraceptives which were feared to threaten fertility. Subsistence farming and low incomes were the major socio-economic aspects which accounted for the low acceptance of the MFP methods. Large families were necessary for farm work and hence modern contraception was not called for.

The study findings also showed a great adherence to traditional family planning practice which discouraged the use of the modern methods. The traditional methods were considered non-hazardous to the users and did not threaten fertility in women. The traditional methods therefore, have been used for years and with time have become part and parcel of the community's culture. The modern methods however, were feared to cause infertility and so were avoided.

Nonetheless, the study showed that with education and reduced offspring mortality modern family planning was likely to be accepted at higher rates
1.0 INTRODUCTION

1.1 WORLD POPULATION ISSUES

The population growth rates in the developing countries, despite the interventions by family planning programmes (FPP) have been on the increase, bringing the population size from one billion a century ago, to four billion in 1990 (Bongaarts et al, 1990). Assuming the same growth trends, the world Bank estimated the population size in these countries would reach ten billion by the end of the next century (Bulatao et al, 1983). However, in the absence of effective strategies in FPP Bongaarts et al (1990) estimated that the population size in the developing countries would reach fourteen billion by the end of the next century.

A demographic profile featuring the past, present and the projected population growth trends in the developing countries was drawn by Bongaarts et al. The data is presented in Table 1.
Table 1. Projected Population Growth Trends In Developing Countries

<table>
<thead>
<tr>
<th>Time</th>
<th>Population size</th>
</tr>
</thead>
<tbody>
<tr>
<td>A century ago</td>
<td>1 billion</td>
</tr>
<tr>
<td>Late 1950s</td>
<td>2 billion</td>
</tr>
<tr>
<td>1975</td>
<td>3 billion</td>
</tr>
<tr>
<td>1990</td>
<td>4 billion</td>
</tr>
<tr>
<td>By 2000</td>
<td>5 billion</td>
</tr>
<tr>
<td>End of next century</td>
<td>10 billion</td>
</tr>
<tr>
<td>(World Bank estimates)</td>
<td></td>
</tr>
<tr>
<td>End of next century</td>
<td>14 billion</td>
</tr>
</tbody>
</table>


High fertility (6.1 live births) and low contraception practice (9%) in the 1960s, were identified as the immediate causative factors for the increased population growth rates.

1.2 INTERNATIONAL EFFORTS TO REDUCE POPULATION GROWTH

To decrease population growth, family planning programmes (FPP) were initiated in different countries in collaboration with a number of international organizations. These programmes were aimed at increasing the contraception practice. The aims of these efforts were to reduce the
fertility rates, and in the long run stabilize the population growth to socio-economically sustainable rates.

The initiation of the FPP was coincidentally timely because by then and particularly after the Bucharest United Nations World Population Conference in 1974, the developing countries had realized the importance of population growth rates that were compatible with desired economic growth and social development goals (Heckel, 1986). Thus after the 1984 United Nations conference held in Arusha Tanzania, many of the Sub-Saharan countries amended their legislation related to population issues. Some countries which included Kenya, Zambia and Uganda, adopted explicit policies while others like Chad and Gabon adopted implicit policies. Other countries like Tanzania and Togo, invariably supported family planning, while Mali and Senegal opted for legal reforms that encouraged FP (Heckel, 1986).

On the average, the fertility and contraceptive use trends reported by the United Nations estimates in 1988, were encouraging. Fertility dropped to 4.2 during the 1980-85 period and contraceptive use increased to 45% by the same time. However, the regional differences were
dramatically wide. In Africa, the fertility decline was negligible (i.e. from 6.6 in 1960-65 to 6.3 in 1980-85). Contraception practice was still low although it doubled from 5% to 14% in the same years. According to Bongaarts et al (1990), Africa had the highest fertility and the lowest contraception rate, as per the UN report on fertility and contraception trends in 1988-89. East Asia on the other hand, during the same time had its fertility drop from 6.1 to 2.4 and contraception prevalence increased from 13% to 74% (Bongaarts et al, 1990)

1.3. TANZANIAN POPULATION ISSUES

In Tanzania, population issues started to be of concern to the government during the post independence times (after 1961) and particularly so after the first national census conducted in 1967. The high population sizes and growth rates became evident after the two subsequent national census conducted in 1978 and 1988, as shown by a demographic profile (Table 2) containing selected information relevant to this study.
Table 2. Demographic Profile of Tanzania (1988)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population 1967</td>
<td>12,313,469.</td>
</tr>
<tr>
<td>Total population 1978</td>
<td>17,512,610.</td>
</tr>
<tr>
<td>Total population 1988</td>
<td>23,174,336</td>
</tr>
<tr>
<td>Population growth rate 1967-1978</td>
<td>3.3%</td>
</tr>
<tr>
<td>Population growth rate 1978-1988</td>
<td>2.8%</td>
</tr>
<tr>
<td>Crude birth rate 1988</td>
<td>47/1000</td>
</tr>
<tr>
<td>Total fertility 1988</td>
<td>6.9 live births</td>
</tr>
<tr>
<td>Infant mortality rate 1957</td>
<td>190/1000</td>
</tr>
<tr>
<td>Infant mortality rate 1967</td>
<td>160/1000</td>
</tr>
<tr>
<td>Infant mortality rate 1978</td>
<td>137/1000</td>
</tr>
<tr>
<td>Infant mortality rate 1988</td>
<td>115/1000</td>
</tr>
</tbody>
</table>


It is evident from the profile above that the population size increases could be attributed to:
- High crude birth and population growth rates both of which stem from the high fertility rate.
- Drop in mortality rates with no parallel reduction in fertility rate.

After the 1967, 1978 and 1988 census surveys it became evident that the large population sizes as shown by the demographic profile (Table 2), could hardly be sustained by the low economic growth rate. Prospects of improving the standard of living above that of the colonial times appeared remote.
1.4 EFFORTS TO SOLVE POPULATION PROBLEMS IN TANZANIA

Before 1974, Tanzania was among the many Sub-Saharan countries that strongly argued against population policies and fertility reduction as means of developing their countries. She stressed that the actual need was to improve the economic and social development of the people. After 1974, however, Tanzania under the Ministry of Health, launched Maternal and Child Health (MCH) with family planning programmes. These programmes emphasized child spacing. To date there are over 2000 MCH centres all over the country, and 71% of them provide FP services.

In 1983, the government launched another project, the National Family Health Project (NFHP), jointly financed by the World Health Organization (WHO), Food and Agricultural Organization (FAO) and the German Technical Cooperation Agency (GTZ). Bagamoyo, a district in the Coast region, became a pilot area for the implementation of the NFHP project. The project had four main components which included:

- Control of malaria
- Control of acute respiratory infections
- Immunization and Control of diarrhoeal diseases.

- Family planning (FP).

The family planning component was started in 1987. According to GTZ (Tanzania) authority, the baseline prevalence for modern contraceptive use was 5-6%. The family planning programme (PPP) within the NFHP was community based in that trained village health workers (VHW) provided family planning education and distributed contraceptives in their own villages. The VHWs were also required to monitor the progress of the acceptors in order to detect side effects or any other complaints and give advice as may be necessary.

A network of supervision operated from the headquarters to the district, ward, and village levels. Motor vehicles/bikes were provided at the supervisory level and bicycles at the implementation levels. The FPP was also equipped with a mobile unit which showed FP related films as a mass medium and an audio-visual aid. Seminars were conducted from time to time and frequent meetings convened to give and discuss the progress reports of the periodically assigned duties. These strategies were designed to encourage acceptance and minimize defaulting. In-process evaluations
were done to measure the impact of the project on the targeted population.

In 1985, the National Child Spacing Programme (NCSP) was launched. NCSP is financed by the United Nation Funds for Population Activities (UNFPA). The direction of implementation, like in all prior programmes, was child spacing with the aim of improving the health of both the mother and child.

The latest efforts were the development of a Population Policy draft which contains the same element of emphasis on child spacing as a priority and strategy to solve the now erratic population growth.

Other policy components implemented by the government in line with the 1984 declaration that Tanzania had signed, include:

- Recognition of the importance of education and information services in the implementation of the MCH-FP programmes. (education is provided mainly through seminars).
- Encouragement of research on infant and child mortalities.
- Provision of contraceptive supplies, clinic and hospital facilities for MCH-FP services.
Taking measures to improve the social status of women, that is equal education and job opportunities irrespective of gender, and/or biased opportunities to favour women where necessary.

1.5 ACHIEVEMENTS IN POPULATION CONTROL IN TANZANIA

In 1984, during the United Nations conference held in Arusha, (Tanzania), the host country was one of the Sub-Saharan countries which had to admit that, directed population sizes were necessary for the socio-development and growth of a nation. Like many of the other countries, Tanzania signed a declaration affirming the importance of achieving population growth rates that are compatible with desired economic growth and social development goals (Berelson, 1990). However, evidence from the 1988 census results with annual economic growth rate of about 2%, the population growth rate of 2.8% and the population size of 23,174,336 shows that not much has been achieved. The fertility rates of 6.9 live births were still high. In addition, the infant mortality rate that dropped from 137/1000 in 1978 to 115/1000 ten years later (1988) contributed to population growth.
1.6. IMPACT OF THE PILOT NATIONAL FAMILY HEALTH PROGRAMME IN BAGAMOYO DISTRICT

From Personal communication (1990) with GTZ it was noted that after the FP programme evaluation in 1989, in Bagamoyo district where extra inputs were added contraceptive use remained low, (i.e 5 to 6%) practically equal to that of the Africa region in the 1960s.

The NFHP expected to realize a higher modern contraception acceptance and raise the prevalence to a figure higher than 10% in two years time. However, an in-process evaluation of the FP component done two years after its initiation (1989), revealed that contraception level remained about where it was that is 5-6%, which is surprising after all the efforts and inputs cited earlier.

1.7 CONCEPTION OF THE PRESENT STUDY

To identify the factors which lead to the low performance of efforts in the pilot study area, i.e. Bagamoyo district the present study was conceived. The findings were expected to help assess the alternatives that may be relevant/suitable for Tanzania and Bagamoyo in particular and hence advise policy makers and the FHP organizers accordingly.
1.8. OBJECTIVES

1.8.1. Main Objectives

The study had two main objectives.

1. To determine the prevalence of modern contraception in the study area.

2. To determine the effects of selected factors on modern contraception practice in the study area.

1.8.2. Sub-objectives

2.1 To determine the effects of demographic, cultural and economic factors on modern contraception acceptance.

2.2 To determine if religion and education influence modern contraception acceptance.

2.3 To determine the effects of problems related to modern family planning on modern contraception acceptance.
2.0 LITERATURE REVIEW

World wide, modern family planning prevalence has been reported by a number of researchers. Caldwell (1975) reported 1% modern contraceptive use by women of the Sub-Saharan Africa. This was confirmed by the findings of the World Population Report (1985) which revealed that contraceptive prevalence is highest in Europe (>40%) and lowest in the sub-Saharan Africa (0% to <40%). Parker and Segal (1986) made similar observations with most of Africa. They observed that the prevalence varied from 40% in Zimbabwe to 5% in Tanzania).

A number of review articles provide useful background on the various socio-demographic, socio-economic, and socio-cultural factors which influence modern contraception. Other reported factors which also affect modern family planning practice include government support efforts in population issues and the strength of family planning programs.
2.1 SOCIO-DEMOGRAPHIC FACTORS AND MODERN CONTRACEPTION

Earlier studies in socio-demographic characteristics have shown that age, marital status, parity, offspring mortality, number of surviving children and the children's gender influences modern contraception practice.

2.1.1 Age.

Contraceptive use patterns differ substantially by age in both the developed and developing countries. Carrasco (1981) and Nortman (1982) argued that contraceptive use increases with age until 35 to 40 years then declines due to infecundity among older age groups for whom contraceptive is unnecessary. In Kenya; Muia (1985) found out that, women of age group 15 to 19 years contribute least while those of age group 20 to 39 years contribute most to modern contraceptive use. Trussel (1986) found out that age at first pregnancy could have a profound effect not only in the health of child and mother but also on the ultimate fertility and population growth.

In the United States of America, 77% of the women aged 15-19 years, are both fecund and
contraceptive users (World Fertility Survey 1982). The prevalence is five times higher than the same age group in the developing countries. In the developing countries, according to this report, modern contraceptive use among women aged less than 30 years is low, but rises substantially after that. In the USA, however, contraceptive use is relatively even among women aged 15-44 years. Nyange (1990) found out that in Kilima-njaro, (Tanzania), modern contraception was slightly higher among women aged 25-29 years and lower among women of age groups 15-19 and 40-49 years.

2.1.2 Marital Status.

Bongaarts (1978) showed that marital status is an important intermediate fertility variable. He noted a higher proportion of contraception among married women compared to the unmarried ones. Muia (1985) showed that contraceptive use in Kenya was higher among married women aged above 20 years. These findings were supported by the National Demographic Survey report, (1989) which showed higher contraceptive use among married women and reported that their efforts were supported by their husbands. In Iran, husband support was further shown to be a prerequisite for modern contraception.
among married women and that female sterilization is legalized on condition that women obtain permission from their husbands (Moreno and Goldman, 1991).

In Metropolitan Indonesia, Joesoef (1988) found out that husband's approval was a must for contraceptive use. In Sudan, in the same year, Khalifa (1988) used the 1985 Male Attitude Survey data and found out that the decision to use or not use contraceptives was male dominated. He also revealed that husbands were responsible for providing contraceptives where family planning was practised.

2.1.3 Parity.

Third World men and women are pronatalists and their traditions encourage women to bear as many children as possible (Betrand 1989). The author observed that a large number of children added the prestige in the community, strengthened the clan, provided labour for household tasks and agricultural work, provides security for parents at old age and offset the effect of infant and child mortalities. The need to have a certain number of children before embarking on modern contraception practice was shown by the Iranian government when
female sterilization was legalized. The clients had to have at least three children (Moreno and Goldman, 1991).

According to Jejeebhoy and Sumati (1989) in Maharashtra, Indian women seem to need more children for security at old age, while men in addition to security, want to preserve the family's continuity and carry out ritual obligations. In Kenya, Oniango and Rogo (1985) found out that the traditional status of women in the community was strongly tied to their fertility and that the higher the fertility, the higher the status in the community. Modern contraception is, therefore, reluctantly accepted because it is believed to negate the traditional family values.

Oyemade and Ogunmuyiwa (1981) found out that in rural Nigeria with extensive agricultural practices, children were viewed as indispensable assets in cultivation. Women with few children or widely spaced births were pitied and ridiculed. In Nepal, couples have at least four children before they adopted modern FP methods Gubhaju, 1985). Again Gubhaju (1985) and Westoff (1990), examining data in 134 surveys from 84 countries and evaluating whether the stated desire to terminate child bearing was a valid predictor of fertility
found out that there was a strong relationship between the total fertility rate and the number of women who wanted no more children. More women who did not want more children were on contraception than those who wanted more children.

Jejeebhoy (1984), however, revealed that couples usually have a desired number of surviving children. Further, he noted that in the developing countries, at household level, once the number of children a couple has exceeded the desired, there is a latent demand for terminating child bearing. According to him, at this juncture the role of family planning became critical.

A vivid change of the desired number of children and its effect on FP practice and fertility reduction was shown by the National Demographic Surveys in Kenya, in 1984 and 1989. According to the 1984 survey report the desired family size was 5.8, contraceptive use was 17% and fertility was 7.7. The 1989 report showed a reduced desired family size (4.4), an increased FP practice (27%) and reduced fertility (6.7).
2.1.4 Child spacing

Birth spacing and child survival was studied by Pebley and Millman (1986). The authors found that there was a strong relationship between birth spacing and child survival. They also observed that children throughout the developing world were more likely to die if they were born less than two years after their mother's previous births than when the birth interval was longer.

The impact of birth spacing on fertility was also studied by Trussel (1986) who found out that the interval between births has a profound effect on the health of the mother and child and the ultimate fertility and population growth.

2.1.5 Sex preference

It has been reported in many cases that the sex of children has a great effect on child bearing and ultimately on contraceptive use. According to Elrich and Elrich (1970) many families have additional children in an attempt to have a son or a daughter if they have only one or none of them. Bulatao and Fawcett (1983), showed that the low status of women in the society induces preference for sons over daughters and contributes to higher fertility rates.
Karki (1988) found that the preferred sex composition by Nepalese women was two sons and one daughter. The author also found that the women had at least a son and an average of four children before embarking on modern contraception. Oyeka (1989) found that in Nigeria, women with no sons and daughters were less likely to have ever used contraception than those with one son and one daughter.

Muna (1987) revealed that in an urban district of Tanzania, the need to have male children prevented couples from using contraceptives especially where previous births were dominated by female children. In Kilimanjaro (Tanzania) couples had a strong preference for sons which contributed to high fertility and low contraceptive use (Nyange, 1990).

2.1.6. Offspring mortality

According to Casteline (1989) mortalities are a possible reason for disapproval of modern contraception.

Family environment and competing effects for food, love and other family services among siblings may cause infant mortality. Gubhaju (1985) used the data from the 1976 Nepal Fertility Survey to
explore the relationships of sibling mortalities. He found that even when the demographic variables were considered, due to family environment effect, the risk of infant and child death was considerably higher among children of mothers whose child died than among those who had a surviving child. The author found that whether the previous child survived or died, the effect of birth interval on infant mortality were present due to the competing child effect.

2.2. SOCIO-CULTURAL FACTORS AND MODERN CONTRACEPTION.

Traditional family planning in Africa has been practised from time immemorial to date. The methods used range from use of plant substances (herbal contraceptives) to cultural reproductive behaviour patterns (CDC, 1983).

Cultural behaviour patterns related to reproduction and sexuality practised in Africa which affect fertility include strict observance of virginity until marriage, sexual abstinence during breast feeding (BF), polygynous marriages and coitus interruptus.

Presence of virginity is highly valued in
Africa, particularly in Zaire where sexual activity is prohibited before the girl is married (CDC, 1983). In this country, according to the same author, a woman is not supposed to bear children once she becomes a grand mother and has to abstain from sexual contact indefinitely.

Sheon and Stanton (1989) observed that temporary abstinence which involves the use of calendar or rhythm technique to determine the fertility period is more commonly used because total abstinence has been reported to be difficult in practice. The calendar and rhythm methods, however, have been associated with ineffectiveness and according to these authors their discontinuity are due to their high failure rates. The failure of the methods had been attributed to the users inability to identify their fertile period correctly.

Postpartum sexual abstinence prevents conception and so facilitates lengthy breastfeeding (BF) periods. Widely spaced births by practising lengthy abstinence of more than three years after birth and six months after weaning have been reported (Caldwell and Caldwell 1988). Lengthy breastfeeding was successful because it was believed that coitus during breastfeeding was
harmful and that semen could enter the blood of the mother and poison the milk. Diseases such as kwashiorkor and marasmus which are caused by protein and energy deficiencies respectively, are believed to be a result of coitus during breastfeeding period, (Walle and Walle, 1988). In Kenya, the 1984 and 1989 National Demographic Surveys and the work of Ferguson (1990) showed that most non-users of modern contraceptives depend on breastfeeding for spacing their births.

Abstinence, total or temporary is, however, practised by women while men enter in polygynous marriage or extramarital relations (Walle and Walle, 1988). The authors observed that men cannot abstain for long periods and so during breastfeeding strain and fighting among couples is common.

Bongaarts (1978) found out that due to uncertainty of return of ovulation, prolonged breastfeeding discouraged modern contraception. His findings are supported by Jain et al (1979) who reported that it is not possible to ascertain the order of menses and ovulation, although they found out that women who were no longer ammenorrheic, but continue to breastfeed are of lower fecundity compared to those who are no longer breastfeeding.
Eslami et al (1990) found out that although breastfeeding mothers are of low fecundity, menses is not always a reliable indicator of postpartum ovulation. According to these authors, menses before six months postpartum are anovular while after this period, menses can be preceded by ovulation, making it highly probable to conceive.

Interpreting findings made here leads to a conclusion that breastfeeding alone was not reliable as a contraceptive.

According to the findings by Walle and Walle (1988), the underlying rationale for traditional FP despite the pronatalist values, is mainly to space births for the health of both mother and child. Therefore, attempts to introduce modern contraception to promote child spacing are not successful.

2.3 SOCIO-ECONOMIC FACTORS AND MODERN CONTRACEPTION

A number of findings have shown that socio-economic factors influence modern contraceptive use. Gulhati (1983) has observed that women continue to depend on children for farm and domestic work if their incomes are not increased by
technology. According to this author dependency on children for labour accounts for increased fertility and negation to modern contraception.

Baulier (1983) observed that favourable socio-economic factors increased modern contraception practice and accounted for 27% in total fertility rate decline. Mbugua (1984) also reported that contraception practice by women increases as their incomes and access to agricultural resources increase.

2.4. RELIGION AND MODERN CONTRACEPTION.

Contradicting findings have been observed on effect of religion on modern contraception practice. The 1984 and 1989 National Demographic Survey reports in Kenya, showed that religion does not have any influence on modern contraceptive use among the Kenyan women of reproductive age. These results were supported by Ferguson (1989 and 1990) who carried a research in Etiono and Nyamira, Kisii District of Kenya. Elsewhere, religion has been found to affect modern contraceptive use (Bongaarts et al, 1990). Haile (1990) found out that in Gondar, Northwest Ethiopia, strongly religious women have a higher number of births and offspring mortalities and furthermore, these women strongly
disapprove of modern contraception.

The Catholic church has been about the only religion against modern contraception practice and has been recommending the practice of abstinence (total or periodic), the Billing method and the symptothermal method or their combination.

On the other hand, Islam which has been said to be against modern contraceptive use appears not to be against it as is evident from legalization of female sterilization by the Iranian government in 1990 (Moreno and Goldman 1991).

2.5. EDUCATION AND MODERN CONTRACEPTION

Education was shown by the World Fertility Report (1982) to influence modern contraception use. According to the report, widespread contraceptive use is difficult to achieve where literacy is low. The same report revealed that in Bangladesh, women who attend school for seven or more years, are five times more likely to use modern contraceptives than those who attend for shorter periods.

Muia (1985) showed that the prevalence of contraceptive use in Kenya was lower (18%) among non-educated women than among those with secondary
education who showed a prevalence of 40%. Better educated women in urban areas in Bas, Zaire were reported to be more likely to adopt modern contraceptive use than the less educated (Betrand et al, 1989). In Nkole, Uganda, Ntonzi (1991) found that low use of modern family planning methods is due to low education among women.

Caldwell (1975) showed that in Nigeria education level influenced modern contraceptive use. He found out that 6% of the non educated women, 16% of women with some education, 38% of those with secondary education and 64% of those with tertiary education practised modern contraception. However, findings by Ferguson (1989) in rural Kenya, contradicted those by Caldwell and Nyange. According to the author, user rate was 34.2% among educated women and 30.4% for those without education. He also found that there was no significant difference in contraceptive use among women of varying degrees of education once age is taken into account.

Finally, that both the wives' and husbands' education can increase contraceptive use has been reported by Bulatao (1984). However, the author noted that the wives' education has a larger effect than the husbands'.
2.6 PROBLEMS RELATED TO MODERN FAMILY PLANNING AND MODERN CONTRACEPTION PRACTICE

2.6.1 Family planning programmes

Bongaarts (1978) observed that family planning programs are a powerful tool for depressing fertility levels. The author emphasized that well organized FPPs supported by government policies motivate contraception practice. He noted that strength of FPPs depends on resources such as funds, educators and service related activities for easier outreach both at programme and government levels. Giving the Africa region as an example, he showed that the development level of a country and strength of FPPs has effect on fertility reduction. In this region where the level of development was low (2.1% - 1.4%), family planning programmes were weak and fertility was high (6.3). In the developed countries such as Europe contraceptive use is high i.e. above 40% (World Population Report, 1985).

Fertility reduction and quality of family planning services were studied by Jain (1989). The author equated FPP quality to the way individual couples are treated by the system providing the services. According to the author the success of
the programmes depends on the quality of the system. Quality elements according to her includes the six components incorporated by Bruce (1988). These are:

- Choice of contraceptive methods which serve sub-groupings i.e. beginners, spacers and or stoppers, males/females, tolerants and non-tolerants so as to allow switch over.

- Information given to users to make them aware of the contraindications, risks and benefits of the methods and their applications, potential side effects and how to manage them, and what to be expected of the provider in terms of advice, support, supply and referrals to other services.

- Provider competence which includes skills and experience of the provider, doctors or paramedics particularly in use of sterile instruments e.g. in intrauterine devices (IUCDs) and sterilization.

- Client/provider relations which allow effective contact between them and allow couples to feel positive about the personnel with whom they interacted while
trusting their capacity and have good will
- Recontact and follow up mechanism to promote continuity
- Appropriate grouping of services to make them acceptable and convenient to couples.

2.6.2 Attitudes, side effects and modern contraception practice

Although studies in attitudes towards modern contraception in the sub-Saharan countries are still at pilot and infancy levels, failure rates, side effects and convenience of application have been reported to have contributed much to the negative attitude towards the use of contraceptives and hence account for the discontinuity of their use.

According to Moreno and Goldman (1986), in the developing world overall failure rates varied across countries from low values of 2% in Thailand and 3% in Indonesia to high values of 16% in Peru and 29% in Bolivia. The pill failure was 5.4% in Brazil and 11.8% in Dominicus.

Philliber and Philliber (1985) have reported that tubal ligation (TL) acceptance in Zaire was very low for moral reasons while others fear
operations and their consequences. The consequences include side effects such as too heavy bleeding and/or irregular menses. TL is further feared because husbands demand continued child bearing and frequent offspring losses that demand replacement.

The few who accept TL do so either for health purposes or want to avoid pregnancy because they are already grandmothers. Widows in Zaire were reported to prefer TL for economic purposes.

The impact of attitude on condom use as a contraceptive was studied in Mexico and Jamaica by Staver and Bravo (1990). The authors found that due to emphasis of condom use for prevention of sexually transmitted diseases during the AIDS information campaigns, potential users fear they can be suspected of having AIDS or sex with people who are likely to be infected.

Personal experience of the author of this work in her village with women who say that modern contraceptives cause health problems and that they can reduce breast milk yield have been supported by research findings. The use of oral contraceptives has been observed to affect lactation (Hull, 1981). According to this author oral contraceptives containing oestrogen and progestron, adversely
affect lactation by reducing the milk volume and changing its constituents. WHO (1988) report supported these findings from the study on the effect of hormonal contraceptives on breast milk and infant growth. WHO also found that there was a significant decrease in milk output and total energy content in addition to widespread changes in milk constituents.

Side effects such as discomfort attributed to intra uterine devices (IUCD), and nausea attributed to pills have been reported by Stephen and Chamratrithirong (1988). The authors also noted that side effects among contraceptive users were high among those using injectable and oral pills reported by 40 and 39% respectively, followed by 9, 7 and 5% of users of IUCDs, condoms and other methods respectively.

According to Lianda (1989), error in pill contraceptive use contributes to its ineffectiveness and side effects. The author reported that in Colombia, new contraceptive users make error in pill use. Errors are high both in the daily use (43%) and incorrect transition from one cycle to another (47%). The report further noted that most errors were purposive because the subjects wanted to reduce side effects and some women used the
pille during sexual intercourse only.

9.0 BACKGROUND INFORMATION ON BAGAMOYO DISTRICT

9.1 GEOGRAPHY

The study was conducted in Bagamoyo district, Coast Region, Tanzania. The district is situated north west of Dar-es-Salaam region, east Tanzania. It borders the Indian ocean coastline on the east, Tanga region on the north and Morogoro region to the west. The southern part of the district is partly bordered by Dar-es-Salaam region and partly by Ribaale, a sister district of the Coast region. It covers an area of 5000 square km.

Bagamoyo district lies between latitudes 6° S and 7° S, and longitudes 38° E and 39° E. (Appendix 1). Bagamoyo town, the district's administrative headquarters, historically was a slave trade centre which served as a port, receiving slaves from the mainland (Tanganyika), for shipment to the Arab countries across the Indian Ocean. It was during the slave trade that the Arabs started to settle in the coast of Bagamoyo and eventually Bagamoyo town was born and subsequently, the Moalem religion was introduced. The cultural values of the indigenous
CHAPTER THREE

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population became mixed with Islam as a result of
the Arab settlement in the coast and today the two
are practically inseparable.

3.2 THE CLIMATE AND AGRICULTURE

Bagamoyo district has a bimodal rainfall
pattern with the short rains from October to
December and long rains from about mid-March to
June. The soils vary from sandy in the coastal
parts to sandy loams and loams further inland. The
climatic conditions are fairly suitable for the
subsistence farming practised in the district.
Food crops grown include maize, cassava, rice and
millet. Millet is sparsely grown further inland.
These crops serve as a main source of energy for
the community. Legumes grown, include pigeon peas,
cow peas and greengrams and form a good and cheap
source of proteins. The district is endowed with a
variety of seasonal fruits. Major fruits include
oranges, pineapples and mangoes. Pawpaws are
available throughout the year. The fruits are a
cheap source of vitamins to the community.

Cash crops grown which include cotton, sim-
sim, cashewnuts and coconuts form a varied and
major source of cash income to the community.
Extra income is generated from sale of fresh water fish from rivers which flow across the district. Fish in the district is an important source of cash income as well as a good source of animal protein to those close to the rivers and the coastline. Unfortunately, the staples are also sold to get some extra cash as an effort to make ends meet at this time of economic crisis and inflation. Sale of food crops more often than not, creates food scarcity between harvests. Animal keeping is not common in the community, except by the Masai who are strictly pastoralists. The Masai's large herds of cattle provide a source of rich first class proteins and cash income from the sale of live animals, milk, meat and hides.

3.3 TRIBES

The major tribes which inhabit the district include the Zigua, Kwere, Doe, Matumbi, Zaramo and the Masai. Except for the Masai who are exclusively pastoralists the community depends on subsistence farming for living.
3.4 EDUCATION

The country basically, and indiscriminately, offers free and equal education opportunities to all citizens. Universal Primary Education (UPE) is part of the education policy, which also explicitly spells out that, every Tanzanian child has the right to get into school and complete primary education. At secondary and college levels education opportunities get limited, and are narrowest at the university level. At these levels academic excellence is the criterion for selection.

3.5. HEALTH/FAMILY PLANNING SERVICES

The government provides free health services throughout the country. In Bagamoyo district, the services are provided in one referral district hospital a few rural health centres at ward level and over thirty dispensaries at the village level. Among the services given in the health centres at all levels, is mother and child health service with child spacing and family planning as integral components.
CHAPTER FOUR

4.0 RESEARCH DESIGN AND METHODOLOGY

RESEARCH DESIGN

A cross-sectional survey was conducted in a randomly selected population of women of reproductive age, 15-49 years in Bagamoyo district using a structured questionnaire.

4.1 SAMPLE SELECTION

Two hundred and forty households (HH) were included in the study. By using Random Table Numbers, only one respondent was selected from each household. The probability proportional sampling procedure was applied to select the sub-samples from the division and ward levels using the 1988 census. Random Table Numbers were also used to select the study villages and Ten Cell Leaders (TCL). This sampling is clarified in figure 1, in the sampling procedure.
4.1.1 Sample size

According to GTZ (Tanzania) authority, the baseline modern family planning methods prevalence was 5% (GTZ Tanzania, 1989). The prevalence during the programme's first evaluation was 6% (GTZ Tanzania, 1989). Taking into consideration the low modern contraception acceptance, a prevalence of 7% at the time of study was expected.

The sample size was then calculated from the formula:

\[ n = \frac{z^2pq}{d^2} \]

Where:
- \( n \) = the desired sample size, (the female adult population in the district was more than 10,000).
- \( z \) = standard normal deviate, set at 1.96 and corresponds to 95% confidence level.
- \( p \) = the proportion in the target population estimated to be practising modern FP.
- \( q = 1 - p \)
- \( d \) = desired degree of accuracy at 0.05 level.

The sample size obtained was 208 subjects. To increase reliability in analysis and provide for the desired level of accuracy a larger study sample size 240 was taken.
4.1.2 Sampling Procedure

The study was designed to include respondents representing the whole district. For this reason the sampling frame included all the eligible respondents (women of reproductive age 15-49 years) within the entire study district. Figure 1 represents the sampling procedure employed.

Figure 1. Summary of sampling procedure within the study area

**BAGAMOYO DISTRICT**

\[ N = 240 \]

<table>
<thead>
<tr>
<th>DIVISIONS</th>
<th>Msoga</th>
<th>Msata</th>
<th>Kwambao</th>
<th>Kwaruhombo</th>
<th>Miono</th>
<th>Yombo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>98</td>
<td>28</td>
<td>17</td>
<td>24</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wards</th>
<th>Ubena</th>
<th>Msata</th>
<th>Dunda</th>
<th>K‘hombo*</th>
<th>Miono</th>
<th>Yombo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
<td>18</td>
<td>15</td>
<td>12</td>
<td>18</td>
<td>20</td>
</tr>
</tbody>
</table>

Notation: * - Kwaruhombo
4.2 TYPE AND DESCRIPTION OF THE DATA COLLECTED

The data collected were grouped into socio-demographic, socio-cultural and socio-economic characteristics, religion, education and modern family planning aspects. The major study tool used was a pretested and adjusted structured questionnaire. Before conducting the interviews ethical considerations were observed, i.e. verbal consent was obtained from the respective husbands, partners or household heads.

4.2.1 Socio-demographic characteristics:

The socio-demographic data collected included the following variables: sex, age, marital status, and child bearing practices. In addition, information on child bearing including the respondents' age at first pregnancy and total pregnancies were collected. Furthermore, data on life loss through miscarriages, still births and deaths after birth were collected as well as information on total number of currently living children and the children's sex was collected.

To make sure that correct data were obtained, child bearing information obtained was counter-checked by comparing it with that recorded in Table
(i) in the questionnaire (Appendix 2). Age was counter checked with birth certificates where possible. In older respondents, age was further verified by comparing with peer groups. A calendar of events (Annex 4) was also used to verify data on age. Other information collected included the respondents' preferences for family size and gender of children, age at first pregnancy and duration of breast feeding. Information on literacy was counter-checked by subjecting the respondents to a literacy test (Annex 3).

4.2.2 Socio-cultural characteristics

Information collected was mainly on ethnicity, traditional child bearing and family planning practices.

4.2.3 Socio-economic characteristics

In the present study, socio-economic data collected included the type of occupation of the respondents, their total earnings as well as their expenditure. Probing was used to obtain information on the total earnings. Total crop harvested was compared with the information given on crop consumed, sold, stored or given away as gifts. This was transformed to monetary value. Total
expenditure accrued from the different earnings was used to get accurate income data.

Sale of live animals and their products was collected from the pastoralists and converted to monthly income using current prices.

Data on religion and education were also collected. Each respondent was asked to which religion she belonged and whether or not she practiced modern family planning. In addition each was asked the education level she had attained.

4.2.4. Knowledge of modern family planning

Finally data on modern family planning was collected. As regards the measure of knowledge and preference for future use of the modern methods, each respondent was shown some of the modern methods which are used or shown the diagrams of the methods from a FP handbook. They were asked what they knew about the methods and marks were awarded as per Annex 1 column 2. The respondents were then informed of the use, reliability, side effects and management of the methods. They were also allowed to ask questions related to modern family planning. After the demonstration each of the interviewees was asked whether she preferred to use modern or
traditional family planning methods and what specific MFPM they preferred to use in the near future.

4.3. RESEARCH ACTIVITIES

The field exercise was carried out in three phases, the preliminary phase, the pilot phase and the actual research phase.

4.3.1 Preliminary phase

A preliminary visit to the study area was undertaken in April 1990. The main aim was to obtain background information related to the study, and to assess the magnitude of the problem. Authorities in the FP programme were visited, and the research problem discussed. For the same purpose, some of the National Family Health Programme (NFHP) workers, village health workers (VHW) and members of the community were visited. The background information obtained and the local literature review ascertained the existence of the problem and the need for research.
4.3.2 Pilot study

Prior to the pilot study, the English questionnaire was translated into Kiswahili and edited. This phase of the study was conducted in Msoga village, a village within Msoga division. This was done in February and March 1991. The main aim of the pilot study was to test the questionnaire and to make sure that the questions were not ambiguous and were easily understood. This study also enabled the researcher to establish a comfortable interview time that would not tire the interviewees and yield the required information.

At the end of the pilot study, necessary corrections and adjustments were made and the questionnaire reformatted and finalized for the actual study.

4.3.3 The Definitive study

The actual study was conducted from mid-June to mid-October 1991. Since family planning is a sensitive topic and also to minimize error the principal investigator conducted all the interviews.

The survey forms were screened and checked at the end of each interviewing day. Errors were
corrected and whenever necessary check backs were made immediately.

Finalized forms were taken to the University of Dar-es-Salaam for data entry. Data cleaning was done by counter checking the outliers with the survey forms.

4.4 THEORETICAL FRAMEWORK AND METHODS OF ANALYSIS

In order to gain information on the studied community, descriptive statistical analysis was done and presented in tabular and graphic forms.

Because all the data in this study was based on counts (of individuals for characteristics) Chi-Square ($X^2$) tests were employed to test for associations between selected variables.
CHAPTER FIVE

5.0 RESULTS

INTRODUCTION

This chapter presents both the descriptive and analytical results of the study. The descriptive results are presented in tables and graphs and analytical results and levels of significance are indicated at \( p = 0.05 \).

5.1. SOCIO-DEMOGRAPHIC CHARACTERISTICS

A total of 240 women respondents of reproductive age ranging from 15 to 49 years were included in the study. Their mean age was 32.3 years.
5.1.1. Age.

Figure 2 depicts the age distribution of the respondents where about 50% were in the 20-24 and 25-29 years of age. Few women fell in the lower and upper age categories of 15-19 and 40-49 years respectively.

Figure 2. Distribution of Respondents by Age
5.1.2 Age and school attendance

Table 3 shows the distribution of respondents by age and school attendance. The Results show that in age categories 15-34 years there were more women who had attended school than those who had not. On the other hand, in age categories 35-49 years, there were fewer women who attended school than those who had not.

Table 3. Distribution of Respondents by Age and School Attendance

\[ N = 240 \]

<table>
<thead>
<tr>
<th>Age category</th>
<th>Total</th>
<th>School Attendance</th>
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<tbody>
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<tr>
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</tr>
<tr>
<td>20-24</td>
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<td>18.8</td>
</tr>
<tr>
<td>25-29</td>
<td>62</td>
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<td>2.6</td>
</tr>
<tr>
<td>45-49</td>
<td>16</td>
<td>2.4</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>65.0</td>
</tr>
</tbody>
</table>
5.1.3 Marital status.

About three quarters (74%) of the subjects were married at the time of survey with the majority (80.9%) being in monogamous marriages (Fig. 3). It is interesting to note here that the majority (59%) of the Masai are polygynous constituting about 38% of all the reported polygynous cases. It is also shown here that a large proportion of about 91% of the single women live with their parents. The divorcees and the widowed lived on their own or cohabited with their men friends.

Figure 3. Distribution of Respondents' by Marital Status

RESPONDENTS n=240

- Married: n=178 (74.2%)
  - Polygyny: n=34 (19.1%)
    - Masai: n=13 (38.2%)
    - Others: n=21 (61.8%)
  - Monogyny: n=144 (80.9%)

- Single: n = 6 (25.8%)
  - Never ever married: n=33 (53.2%)
  - Widowed: n=8 (12.9%)
  - Divorcees: n=21 (33.9%)

Live: parents: n=30 (90.9%)
Live alone: n=16

Through out the age categories, more women were married than not with an overall proportion of 25.8% of the respondents being single as shown in Table 4.

Table 4. Distribution of Respondents by Age and Marital Status.

<table>
<thead>
<tr>
<th>Age</th>
<th>Total</th>
<th>Married</th>
<th>Not married</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
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<td>30</td>
<td>9.2</td>
<td>3.3</td>
</tr>
<tr>
<td>35-39</td>
<td>38</td>
<td>10.8</td>
<td>4.6</td>
</tr>
<tr>
<td>40-44</td>
<td>18</td>
<td>6.2</td>
<td>1.2</td>
</tr>
<tr>
<td>44-45</td>
<td>16</td>
<td>5.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>74.2</td>
<td>25.8</td>
</tr>
</tbody>
</table>
5.1.4 Child bearing and preferred age at first pregnancy

Table 5 shows an appreciable proportion (about 39%), of very young mothers aged <15-16 years, this is an indicator of high vulnerability and exposure to early pregnancy risks. On the other hand a small proportion (about 21%) preferred to have their first pregnancy below 17 years of age while the majority (about 80%) preferred to be pregnant at a later stage i.e 17 years and above. There was a highly significant difference of the actual age at which mothers got their first pregnancy and the prefered age at first pregnancy (p <0.005). Actually most mothers got pregnant earlier than they would have prefered. The majority (69.5%) of the women prefered to have their first pregnancy between 17-20 years of age.
Table 5. Distribution of Respondents by Actual and Preferred Age at First Pregnancy.

\[ n = 240 \]

<table>
<thead>
<tr>
<th>Age</th>
<th>Actual</th>
<th>Preferred</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( n )</td>
<td>( % )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;15-16</td>
<td>94 (39.2)</td>
<td>50 (20.7)</td>
</tr>
<tr>
<td>17-20</td>
<td>118 (49.1)</td>
<td>167 (69.5)</td>
</tr>
<tr>
<td>21+</td>
<td>28 (11.5)</td>
<td>23 (9.8)</td>
</tr>
<tr>
<td>Total</td>
<td>240 (100.0)</td>
<td>240 (100.0)</td>
</tr>
</tbody>
</table>

\( p < 0.005 \)
The present study showed that older mothers aged 35-49 years constituted 29.7% (71). Table 6 shows that of these mothers, more than 70% continued to bear children and had large numbers of pregnancies (5-11+). As expected there was a statistically significant increase in the number of pregnancies with increasing age of mothers (p=0.05).

Table 6. Distribution of Older Mothers by Age and Total Pregnancies

n = 71 (29.7% of total subjects)

<table>
<thead>
<tr>
<th>Age</th>
<th>Total</th>
<th>Total pregnancies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>None 1-4 5-8 11+</td>
</tr>
<tr>
<td>35-39</td>
<td>37</td>
<td>2.8 15.5 28.2 5.6</td>
</tr>
<tr>
<td>40-44</td>
<td>18</td>
<td>0.0  4.2  1.4 19.7</td>
</tr>
<tr>
<td>45-49</td>
<td>16</td>
<td>2.8  4.2  5.6  9.8</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>5.6 23.9 35.2 35.2</td>
</tr>
</tbody>
</table>

p <0.05
5.1.5 Breastfeeding

Table 7 below presents results on duration of breastfeeding preference. It is shown that the majority (about 83%) of the women preferred to breastfeed for 1-2 years. Few preferred to breastfeed for more than two years while none preferred to breastfeed for less than one year. It is noted that significantly more mothers preferred to breastfeed for 1-2 years than longer than 2 years (p < 0.005).

Table 7. Distribution of Respondents by Preferred Breastfeeding Period

<table>
<thead>
<tr>
<th>BF Period (years)</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>&lt; 1</td>
<td>0</td>
</tr>
<tr>
<td>1 - 2</td>
<td>199</td>
</tr>
<tr>
<td>&gt; 2-3</td>
<td>15</td>
</tr>
<tr>
<td>&gt; 3</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
</tr>
</tbody>
</table>

p < 0.005
5.1.6 Age at first pregnancy and offspring mortalities

A total of 71 (29.5%) respondents reported having lost a first pregnancy offspring. Table 8 shows that of the mothers who lost their offsprings more than half (56.4%) were aged <15-16 years at the time of first pregnancy, while slightly more than a third (33.8%) were in the age group 17-20 years when they had their first pregnancy. Statistical analysis results also showed that the difference in offspring mortality among women aged <15-16 and those aged 17-21= was very highly significant (p <0.005).

Table 8. Distribution of Mothers by Age at First Pregnancy and Offspring Mortality

<table>
<thead>
<tr>
<th>Age at first pregnancy</th>
<th>Mothers who lost offsprings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>&lt;15-16</td>
<td>40</td>
</tr>
<tr>
<td>17-20</td>
<td>24</td>
</tr>
<tr>
<td>21+</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
</tr>
</tbody>
</table>

p <0.005
5.1.7 Age and Offspring mortalities

Results presented in Table 9 show that the number of dead offsprings increased with the age of the mothers. High loss of offsprings that is 5 and above was observed from age groups 35-49 years. The mean loss per mother was 2 with a range of 0-9 offsprings.

Table 9. Distribution of Mothers by Age and Offspring Mortalities

<table>
<thead>
<tr>
<th>Age category</th>
<th>Total</th>
<th>Number of dead offsprings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>1-2</td>
</tr>
<tr>
<td>15-19</td>
<td>7</td>
<td>100.0</td>
</tr>
<tr>
<td>20-24</td>
<td>9</td>
<td>88.9</td>
</tr>
<tr>
<td>25-29</td>
<td>17</td>
<td>94.1</td>
</tr>
<tr>
<td>30-34</td>
<td>23</td>
<td>82.6</td>
</tr>
<tr>
<td>35-39</td>
<td>29</td>
<td>72.5</td>
</tr>
<tr>
<td>40-49</td>
<td>33</td>
<td>42.5</td>
</tr>
</tbody>
</table>

n=118 (50.6% of all the mothers)
The total number of pregnancies reported by all the 233 studied mothers was 1001. However, mortalities claimed 231 (23.1%) lives of the offsprings from 141 (50.6%) mothers leaving an average of 3.3 instead of the expected 4.3 surviving offsprings. Losses occurred through miscarriages, still births and deaths after births which contributed 36.4%, 14.7% and 48.9% deaths respectively. These mortalities rendered some (6.4%), of the mothers childless. In addition, as a result of offspring mortality, mothers with more than 7 children were reduced from 17.1% to 9.6%. None of them had more than 9 living children.
5.2 SOCIO-CULTURAL CHARACTERISTICS

The socio-cultural characteristics studied included ethnicity and traditional practices on family planning and child bearing.

5.2.1 Ethnicity

Tribes encountered in the study area were as shown in Table 10. The Zigua and the Kwere were the majority making a proportion of 47.5%. The Doe, Zaramo, Masai and Matumbi made up about 37%. A proportion of about 15% was made up of the other tribes with 1 or 2 respondents.

Table 10. Distribution of the Respondents by Tribes

\[ N = 240 \]

<table>
<thead>
<tr>
<th>Tribe</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zigua</td>
<td>67</td>
<td>27.9</td>
</tr>
<tr>
<td>Kwere</td>
<td>47</td>
<td>19.6</td>
</tr>
<tr>
<td>Doe</td>
<td>31</td>
<td>12.9</td>
</tr>
<tr>
<td>Zaramo</td>
<td>29</td>
<td>12.1</td>
</tr>
<tr>
<td>Masai</td>
<td>22</td>
<td>9.2</td>
</tr>
<tr>
<td>Matumbi</td>
<td>7</td>
<td>2.9</td>
</tr>
<tr>
<td>Others</td>
<td>37</td>
<td>15.4</td>
</tr>
<tr>
<td>total</td>
<td>240</td>
<td>100.0</td>
</tr>
</tbody>
</table>
5.2.2 Socio-cultural practices

The culture of the different tribes in the studied community seems to accept pregnancies at early ages as can be seen in Table 11. In all the tribes the proportion of women who had their first pregnancy at $<15-16$ years was high.

Table 11. Distribution of Respondents by Tribe and Age at First Pregnancy.

<table>
<thead>
<tr>
<th>Age</th>
<th>Tribes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Zigua</td>
</tr>
<tr>
<td></td>
<td>n=67</td>
</tr>
<tr>
<td>&lt;15-16</td>
<td>43.3</td>
</tr>
<tr>
<td>17-18</td>
<td>32.8</td>
</tr>
<tr>
<td>19-20</td>
<td>14.9</td>
</tr>
<tr>
<td>21+</td>
<td>9.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>
5.2.3 Traditional education and child spacing

Traditional instructions for motherhood and child rearing start early at adolescence that is at the onset of the first menstrual cycle. This was reported by 92.5% of the respondents who gave the elderly as the source of traditional FP methods. In reference to "unyago" defined in page xiv, as well as the health authority of the nation recommend a child spacing of 2 years.

Results in Table 12 show that slightly more than half of the mothers (about 53%) space their births for more than two years. In this study about 8.9% of the mothers spaced their births for less than a year.

Table 12. Distribution of Subjects by Child Spacing Intervals (in years)

<table>
<thead>
<tr>
<th>Birth spacing (years)</th>
<th>Subjects</th>
</tr>
</thead>
</table>
|                       | n  | %  | %
| >3                    | 40 | 19.1 | 52.8
| >2-3                  | 71 | 33.7 |
| 1-2                   | 80 | 38.3 |
| < 1                   | 19 | 8.9  |
| Total                 | 210| 100.0 |
5.2.4 Traditional family planning methods familiar to the respondents

The withdrawal method was the most commonly recalled traditional family planning method (Table 13). Other methods recalled are also shown in the table. It is interesting to note that women mentioned breastfeeding as a method for family planning. In general, total recall on traditional methods was high (above 75%).

Table 13. Distribution of Respondents by Type of Recall on Traditional FP methods

<table>
<thead>
<tr>
<th>TFPM</th>
<th>Type of Recall</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spontaneous</td>
<td>Probed</td>
<td>Total</td>
</tr>
<tr>
<td>Calendar</td>
<td>12.5%</td>
<td>63.7%</td>
<td>76.2%</td>
</tr>
<tr>
<td>Abstinence</td>
<td>36.7%</td>
<td>53.7%</td>
<td>90.4%</td>
</tr>
<tr>
<td>Breastfeeding</td>
<td>15.8%</td>
<td>67.1%</td>
<td>82.9%</td>
</tr>
<tr>
<td>Traditional herb</td>
<td>60.4%</td>
<td>27.1%</td>
<td>87.5%</td>
</tr>
<tr>
<td>Observing virginity</td>
<td>23.7%</td>
<td>55.0%</td>
<td>78.7%</td>
</tr>
<tr>
<td>Coitus interruptus</td>
<td>22.9%</td>
<td>75.0%</td>
<td>97.9%</td>
</tr>
<tr>
<td>Polygyny</td>
<td>3.3%</td>
<td>80.8%</td>
<td>84.1%</td>
</tr>
</tbody>
</table>
5.2.5 Traditional family planning practice

About three-quarters (75.1%) of the respondents reported that the major reason for traditional family planning practice was to facilitate child spacing. Other reasons were to delay first pregnancy and to terminate child bearing as reported by 19.1% and 2.4% respectively.

Results in Table 14 show that traditional family planning is achieved mainly by practice of abstinence and withdrawal which were reported by about 45%, and 32% respectively. Breastfeeding polygyny and herbal medicine were practised but to a less extent. The safe period method was not practised at all.

It was reported by 98.9% of the women that practice of abstinence and the withdrawal demands a very high degree of self control and discipline particularly on the part of men. Disharmony between couples caused by stress of over abstaining was reported by 37% of those who ever practised the method.
Table 14. Traditional Family Planning Methods Practised at the Time of survey.

\[ N = 146 \]

<table>
<thead>
<tr>
<th>Traditional FP methods</th>
<th>Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Safe period</td>
<td>0</td>
</tr>
<tr>
<td>Sexual abstinence</td>
<td>65</td>
</tr>
<tr>
<td>Prolonged breastfeeding</td>
<td>25</td>
</tr>
<tr>
<td>Herbal medicine</td>
<td>1</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>46</td>
</tr>
<tr>
<td>Polygyny</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>146</td>
</tr>
</tbody>
</table>

5.2.6 Non-practice of traditional FP methods

At the time of survey 39.2% of the 240 women interviewed were not practising traditional FP. Reasons given for the non-practice were desire to have another pregnancy and using modern methods as reported by 56.4% and 23.4% respectively. Use of herbal medicine was abandoned by all those who ever used it because it has become a commercial commodity sold by persons other than the traditional herbalists. Some young respondents (41%) said that the herbs never work because they have no contraceptive effect.
5.3 SOCIO-ECONOMIC CHARACTERISTICS

The socio-economic characteristics which were studied included the respondents' and their husbands' occupations, incomes and expenditures.

5.3.1 Husbands' occupations

Information on occupation of most husbands was reported by the wives. Slightly more than half (57.3%) of the interviewed husbands were subsistence farmers, 11.2% were pastoralists and the rest were either fisher men, (8.4%) businessmen (6.4%) or employed in the government 10.1% or private sectors 6.2%.

5.3.2 Respondents' occupations, incomes and expenditures

The information obtained on the respondents' incomes and expenditures represented those of the respective households. The major occupation of the respondents was subsistence farming reported by 90.4%. About 8% kept animals, a few operated small businesses or were purely housewives. The modal incomes and expenditures were Tsh 2,000 - 2,999/= per month. Figure 4 shows that households (HH) below the modal figures were about 39% and 22% for
income and expenditure respectively. Those above the mode were 19.6% for income and 32.5% for expenditure.

Figure 4. Distribution of Respondents by Monthly Income and Expenditure. N = 240
5.4 RELIGION

Figure 5 shows that Islam was the major religion in the studied community. A minority of the respondents (17%) were either Christians or non-believers.

Figure 5. Distribution of Respondents by Religion

Moslems 83%
Other Christians 7%
Traditional 3%
Catholics 7%
5.5 EDUCATION

5.5.1 Formal education

Results in Table 15 show that the observed general education level was low among the women. School attendance above the primary level was almost negligible, (below 1%). The total primary school attendance was two thirds while a proportion of over a third of the subjects had never been to school. The school attendance of 65% was much lower than the normal national average of 85%.

<table>
<thead>
<tr>
<th>Years in school</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>None</td>
<td>84</td>
</tr>
<tr>
<td>1-4</td>
<td>27</td>
</tr>
<tr>
<td>5-8</td>
<td>127</td>
</tr>
<tr>
<td>9+</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
</tr>
</tbody>
</table>

Table 15. Distribution of Subjects by Education Level (years of school attendance)
5.5.2 Education level and age

Education level by number of years in school is depicted in Table 16. It is noted that the younger population had completed more years in school than the older age group. For example those aged 15-19 years (63.6%) had attained 5-8 years of schooling whereas only 12.5% of those aged 44-49 years had completed a similar level.

Table 16. Distribution of Respondents by Education Level and Age

\[N = 240\]

<table>
<thead>
<tr>
<th>Age</th>
<th>Total</th>
<th>Education level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>None</td>
</tr>
<tr>
<td>15-19</td>
<td>23</td>
<td>36.4</td>
</tr>
<tr>
<td>20-24</td>
<td>54</td>
<td>16.7</td>
</tr>
<tr>
<td>25-29</td>
<td>62</td>
<td>22.2</td>
</tr>
<tr>
<td>30-34</td>
<td>30</td>
<td>33.3</td>
</tr>
<tr>
<td>35-39</td>
<td>38</td>
<td>56.8</td>
</tr>
<tr>
<td>40-44</td>
<td>17</td>
<td>66.7</td>
</tr>
<tr>
<td>45-49</td>
<td>16</td>
<td>62.5</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td></td>
</tr>
</tbody>
</table>
5.5.3 Education level and age at first pregnancy

Results in Table 17 show that more than half (58.3) of those who had no education got pregnant at an early age (<15 years). Those with education e.g. 5-8 years delayed their first pregnancy to later ages as shown by more than two thirds who had their first pregnancy after age 15-20 years. At age 21 years and above, the level of education was no longer important for first pregnancy since there was already a pregnancy even for those who had been to school for 9 years and above.

Table 17. Distribution of Respondents by Education and Age at First Pregnancy

<table>
<thead>
<tr>
<th>Age at first pregnancy</th>
<th>Education level</th>
<th>None</th>
<th>1-4</th>
<th>5-8</th>
<th>9+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>&lt;15</td>
<td>58.3</td>
<td>16.5</td>
<td>25.2</td>
<td>0.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>15-16</td>
<td>9.2</td>
<td>25.4</td>
<td><strong>65.4</strong></td>
<td>0.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>17-18</td>
<td>19.2</td>
<td>10.8</td>
<td><strong>70.0</strong></td>
<td>0.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>19-20</td>
<td>30.3</td>
<td>4.3</td>
<td><strong>65.4</strong></td>
<td>0.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>21-22</td>
<td>45.4</td>
<td>10.4</td>
<td>39.0</td>
<td>5.2</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>23+</td>
<td>46.0</td>
<td>21.6</td>
<td>26.8</td>
<td>5.2</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

69
5.5.4 Education level and total pregnancies

About 18% (42) of all the 233 mothers had 7 or more pregnancies. The proportion being 10.4% who had never been to school, 4.2% who had attended school for 1-4 years and 3.4% who had been to school for 5-8 years. Statistical testing indicated that the level of education significantly affects the total number of pregnancies a mother has (p < 0.05).

5.5.5 Adult education.

Only two (2.3%) of the 85 women who had never been to school had attended adult education classes and they were able to read as shown by results when they were subjected to read the material in Annex 3.

5.6 PROBLEMS RELATED TO MODERN FAMILY PLANNING

Problems related to modern family planning were studied in order to find out whether or not they influence modern contraceptive use. These included knowledge of methods ever or currently used and preference for future use. Methods which were of interest in this study included all the modern contraceptives that had been introduced in
the country by the time of survey. These are listed below.

1. Oral pills  
2. Injectables  
3. Intra-uterine devices (ICUD).  
4. Condoms  
5. Tube ligation (TL)  
6. Foaming tablets  
7. Diaphragm  
8. Vasectomy

Table 18 shows that the most widely known modern method to the community was the oral pill followed by condoms, the loop and the injectables which were recalled spontaneously by about 62%, 29.%, 24.% and 21% respectively. Spontaneous recall, was low for vasectomy, tubal ligation, foaming tablets and diaphragm. After probing the recall rates increased for tubal ligation, injectables and condoms. Except for the oral contraceptives, the knowledge of the modern methods was low.
Table 18. Distribution of Respondents by Modern FP Recall and Knowledge

<table>
<thead>
<tr>
<th>MFPM</th>
<th>Type of recall</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>spontaneous</td>
<td>after probing</td>
</tr>
<tr>
<td>OC*</td>
<td>62.5</td>
<td>7.9</td>
</tr>
<tr>
<td>INJ*</td>
<td>20.8</td>
<td>42.1</td>
</tr>
<tr>
<td>IUCD*</td>
<td>24.2</td>
<td>32.9</td>
</tr>
<tr>
<td>CND*</td>
<td>29.2</td>
<td>41.7</td>
</tr>
<tr>
<td>TL*</td>
<td>6.3</td>
<td>48.8</td>
</tr>
<tr>
<td>FT*</td>
<td>7.1</td>
<td>33.8</td>
</tr>
<tr>
<td>DPG*</td>
<td>8.3</td>
<td>35.4</td>
</tr>
<tr>
<td>VST*</td>
<td>5.0</td>
<td>39.2</td>
</tr>
</tbody>
</table>

Notation: * OC — Oral contraceptives
INJ — Injectable
IUCD — Intrauterine contraceptive device
CND — Condoms
TL — Tube Ligation
FT — Foaming tablets
DPG — Diaphragm
VST — Vasectomy
5.6.1 Ever used and discontinued modern FP Methods

About 22% (52) of the studied women had used modern FP methods before this survey. There were only three types of methods that were ever used and these were, "the pills", condoms and loops at rates of 75.0% (39), 23.1% (12) and 1.9% (1) respectively. There was a 100% drop out rate for each of the ever practised methods.

The single Lippes loop user needed a child and so had the loop removed. Reasons given for abandoning "the pill" use was non-reliability as reported by about 51% of those who used and became pregnant. The second reason was need for a child which was reported by 17.9%. Side effects such as over bleeding, irregular menses and painful menses were given as a reasons by (15.4%) of the respondents, while (12.8%) reported that they wanted another pregnancy to replace their lost offspring(s). A small proportion of only (5.1%) discontinued the use because they were breastfeeding.
5.6.2 Reasons for not having ever used MFPM

About 69% of the respondents had not used any of the modern FP methods before the survey. Asked why they had not done so, about two thirds (63.8%) said they had not understood the methods. A proportion of about 52% feared health hazards and side effects while about 20% feared their husbands' or partners. A proportion of about 18% said that they had no reason for use while a small proportion of 5.4% said that they had not yet decided on the use.

5.6.3. Current use of modern contraceptives in Bagamoyo district

Modern family planning was studied with the objective of determining the prevalence of modern contraceptive use in the community. The current prevalence is 9.2% as shown in Table 19. Most of the current users 7.5% were on "the pill". The least in use were the injectables, condoms and tubal ligation which were used by 0.8%, 0.4% and 0.4% respectively.

About 91% users obtained the contraceptives from the MCH clinics and the rest from the village health workers.
Table 19. Distribution of Subjects by Current Use of Modern FP methods

<table>
<thead>
<tr>
<th>Modern FP methods</th>
<th>Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Oral pills</td>
<td>18</td>
</tr>
<tr>
<td>Injectables</td>
<td>2</td>
</tr>
<tr>
<td>Condoms</td>
<td>1</td>
</tr>
<tr>
<td>Tube Ligation</td>
<td>1</td>
</tr>
<tr>
<td>Non-users</td>
<td>218</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
</tr>
</tbody>
</table>

5.6.4 Reasons for the current non-use of MFPM

Major reasons given for the non-use included fear that side effects of the contraceptives would threaten fertility of the mother and/or life of the child as reported by 84.8% of the respondents. Other reasons were lack of understanding and breastfeeding as reported by 68.8% and 38.9% of the respondents respectively. Practically all the users reported that they understood the schedule or regimen of use and have no problems except for three (11.1%) who had irregular menses and were suspected to be pregnant. These were advised to report to their respective health centres for further advice.
5.6.5 Characteristics of modern FP users

Results in Table 20. show that at the time of survey:

- Modern family planning was mostly practised by women at 20-34 and 35-49 years of age.
- Those aged 15-19 years did not practice. Married women were the main users of modern family planning methods.
- Half of the subjects who were on current modern FP practice had 3-6 pregnancies and about a third of them had more than 6 pregnancies. A smaller proportion of subjects on contraceptive use had 1-2 pregnancies. None of the subjects who had no pregnancy was practising modern family planning.
- About 50% of those who were on MFPM had not experienced offspring mortality.
- There was no contraceptive use among women who had no living children. The prevalence among women with 1-2 and 3-4 children was slightly lower than among those with more than 4 living children.
- About three quarters of the subjects who were on modern contraception had both male
and female children while a few of those who had either boys or girls only were not using any of contraceptives.

- The MFPM prevalence was very high among the Moslem subjects and very low among the non-moslems.

- About three quarters of the modern contraceptive users had attended school.
Table 20. Characteristics of the Current Modern Family Planning Users

\( n = 22 \)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Modern FP methods users</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>20-34</td>
<td>12</td>
<td>54.5</td>
</tr>
<tr>
<td>35-49</td>
<td>10</td>
<td>45.5</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>15</td>
<td>68.9</td>
</tr>
<tr>
<td>Not married</td>
<td>7</td>
<td>31.1</td>
</tr>
<tr>
<td><strong>Total pregnancies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>1-2</td>
<td>4</td>
<td>18.2</td>
</tr>
<tr>
<td>3-6</td>
<td>11</td>
<td>50.0</td>
</tr>
<tr>
<td>7+</td>
<td>7</td>
<td>31.8</td>
</tr>
<tr>
<td><strong>Offspring mortalities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>11</td>
<td>50.0</td>
</tr>
<tr>
<td>1-2</td>
<td>8</td>
<td>36.4</td>
</tr>
<tr>
<td>3+</td>
<td>3</td>
<td>13.7</td>
</tr>
<tr>
<td><strong>Number of living children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>1-2</td>
<td>7</td>
<td>31.8</td>
</tr>
<tr>
<td>3-4</td>
<td>7</td>
<td>31.8</td>
</tr>
<tr>
<td>5+</td>
<td>8</td>
<td>36.4</td>
</tr>
<tr>
<td><strong>Gender of Living children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girl(s) only</td>
<td>3</td>
<td>13.6</td>
</tr>
<tr>
<td>Boy(s) only</td>
<td>3</td>
<td>13.6</td>
</tr>
<tr>
<td>Both sexes</td>
<td>16</td>
<td>72.8</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moslems</td>
<td>20</td>
<td>90.9</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>9.1</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educated</td>
<td>6</td>
<td>72.7</td>
</tr>
<tr>
<td>Not educated</td>
<td>16</td>
<td>27.3</td>
</tr>
</tbody>
</table>
5.6.6 Family planning situation in Bagamoyo

District

At the time of survey, both traditional and modern family planning methods were being practiced as shown in Figure 6. Results show that the past and present use of traditional methods was higher (about 93% and 39% respectively) than the past and present use of modern methods which was 21.7% and 9.2% respectively. However, preference for future use of modern methods was higher (about 61%) than for the traditional methods (about 12.%).

Figure 6. Current FP Situation in the District
5.6.7. Preference for family planning methods.

Over 90% of the respondents preferred modern FP methods (Table 21). However, 79.7% stressed that one should have at least 2-3 living children before they can attempt to use "the pill", the injectables or the IUCD. They nevertheless expressed fear that the pills, injectables and TL could harm both the mother and the offspring.

A small proportion preferred traditional family planning. Similarly only a few preferred both methods.

Table 21. Distribution of Subjects by Preference for Type of Family Planning.

<table>
<thead>
<tr>
<th>Type of FP</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>TFP</td>
<td>10</td>
</tr>
<tr>
<td>MFP</td>
<td>217</td>
</tr>
<tr>
<td>Both MPP and TP</td>
<td>9</td>
</tr>
<tr>
<td>Do not know</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
</tr>
</tbody>
</table>
5.6.8 Preference for future use of specific MFP methods.

Overall preference for future use of specific modern methods dropped dramatically when the respondents were asked to mention the specific methods they preferred to use in the future. The decline was from 217 (90.4%) subjects who generally preferred MFPM to 147 (61.3%) who opted to use specific MFPM in the near future.

Results presented in Figure 7 show that the pill was the most preferred modern contraceptive. Slightly less than half preferred to use oral pills while about a third preferred injectable contraceptives and quite a number were for the loops and tubal ligation. Foaming tablets, diaphragms and vasectomy, were not opted for despite the additional information afforded by the researcher. The condoms were least preferred.
Table 22 shows the characteristics of the subjects who preferred to use MFPM in the near future.

Preference for use of MFPM in the future was highest among women aged 20-34 years where the proportion was about 2 thirds and lowest among those aged 15-19 years, this was about one eighth. About a quarter of the women aged 35-49 years preferred the use.

About three quarters of the women who preferred to use modern methods were married while
about a quarter were single.

The proportions of those who had 3-4, 5-6 and 7 or more pregnancies were practically not different.

About half of the women who preferred the methods had not lost any offspring. Preference was slightly less among those who lost 1-2 offsprings as shown by the proportion of about 44% and least among those who lost 3 or more offsprings.

Women who had no living children did not wish to use modern methods. Preference for the method among women with at least a child was about one third.

Preference for the methods was higher among women with children of both sexes (as shown by more than half) than among those with children of one sex only.

More than three quarters of those who preferred modern methods were Moslems while a few were from other religions.

Over two thirds of the women who preferred to use the methods had attended school and slightly less than a third had not attended school.
Table 22. Characteristics of Women Who Prefer to Use Modern Family Planning Methods:

\( n = 147 \)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>18</td>
</tr>
<tr>
<td>20-34</td>
<td>92</td>
</tr>
<tr>
<td>35-49</td>
<td>37</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>112</td>
</tr>
<tr>
<td>Not married</td>
<td>35</td>
</tr>
<tr>
<td><strong>Number of pregnancies</strong></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td>1-2</td>
<td>59</td>
</tr>
<tr>
<td>3-4</td>
<td>28</td>
</tr>
<tr>
<td>5-6</td>
<td>32</td>
</tr>
<tr>
<td>7+</td>
<td>28</td>
</tr>
<tr>
<td><strong>Offspring mortalities</strong></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>71</td>
</tr>
<tr>
<td>1-2</td>
<td>62</td>
</tr>
<tr>
<td>3+</td>
<td>14</td>
</tr>
<tr>
<td><strong>Number of living children</strong></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td>1-2</td>
<td>47</td>
</tr>
<tr>
<td>3-4</td>
<td>49</td>
</tr>
<tr>
<td>5+</td>
<td>51</td>
</tr>
<tr>
<td><strong>Gender of living children</strong></td>
<td></td>
</tr>
<tr>
<td>No girls</td>
<td>30</td>
</tr>
<tr>
<td>No boys</td>
<td>32</td>
</tr>
<tr>
<td>Both sexes present</td>
<td>85</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
</tr>
<tr>
<td>Moslems</td>
<td>139</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
</tr>
<tr>
<td>Did not attend school</td>
<td>44</td>
</tr>
<tr>
<td>Attended school</td>
<td>103</td>
</tr>
</tbody>
</table>

84
5.6.9 Reasons for preference of specific MFPM.

When the respondents were asked why they preferred the particular methods they gave different answers (Table 23). Slightly over a half (about 54%) gave ease of use as the most important reason for adopting the method. The next important reason for the use was long action followed by familiarity and keeping the use secret (hidden from children and/or husband) reported by few respondents. Other reasons which included prevention of sexually transmitted diseases, terminating child bearing and fear of pills were given by a minority of the respondents.
Table 23. Distribution of Respondents by Reasons for Choice of Specific MPPM

\[ N = 190 \]

<table>
<thead>
<tr>
<th>Methods</th>
<th>Reasons for preference *</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>OC</td>
<td>36.8%</td>
</tr>
<tr>
<td>INJ</td>
<td>15.8%</td>
</tr>
<tr>
<td>LP</td>
<td>-</td>
</tr>
<tr>
<td>CND</td>
<td>1.1%</td>
</tr>
<tr>
<td>TL</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>53.7%</td>
</tr>
</tbody>
</table>

Notations for reasons:

1. - Easy to use
2. - Used to it (Familiarity)
3. - Keeping secret from husband and children
4. - Long acting
5. - Wish to terminate child bearing
6. - Fear of pills
7. - To prevent sexually transmitted diseases.
5.7 COMPARATIVE RESULTS

After a descriptive presentation of the various parameters influencing acceptance of modern contraception, Analysis by Chi-square was performed on selected characteristics thought important in modern family planning endeavors. Results are shown in Tables 24, 25 and 26.

5.7.1 Demographic Variables

Significant relationships were noted between demographic variables; age, marital status, total pregnancies, offspring life losses, living children, and modern family planning practice as shown in Tables 24.

The present modern contraceptive use was significantly higher among women who were married, had many pregnancies, had lost fewer offsprings or had at least a son than among those who were single, had few pregnancies, lost many offsprings or had girls only, (p < 0.05). Preference for specific modern family planning methods was also significantly higher among the younger respondents than among the older ones (P <0.01). Likewise, preference for the pill among the respondents with fewer pregnancies (1-4) was significantly higher
than among those with very high numbers of pregnancies (9+) who preferred tubal ligation \((P<0.001)\). It was also shown that significantly more women who had lost fewer offsprings preferred to use the modern methods than those who lost many offsprings \((p < 0.01)\).

Table 24. Relationship Between Demographic Variables and Selected Dependent Variables

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Dependent variables</th>
<th>p. values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>- Education level</td>
<td>0.081x10^-6 ****</td>
</tr>
<tr>
<td></td>
<td>- Present FP practice</td>
<td>0.4689</td>
</tr>
<tr>
<td></td>
<td>- Preferred specific MFPM</td>
<td>2.248x10^-7 ****</td>
</tr>
<tr>
<td>Marital status</td>
<td>- Present modern FP practice</td>
<td>0.0401</td>
</tr>
<tr>
<td></td>
<td>- Preferred specific MFPM</td>
<td>0.7896</td>
</tr>
<tr>
<td>Offspring mortalities</td>
<td>- Present FP practice</td>
<td>2.218x10^-3 ***</td>
</tr>
<tr>
<td>Total Pregnancies</td>
<td>- Present FP practice</td>
<td>0.0302 **</td>
</tr>
<tr>
<td></td>
<td>- Preferred specific MFPM</td>
<td>2.33x10^-5 ****</td>
</tr>
<tr>
<td>Living children</td>
<td>- Present FP practice</td>
<td>0.4201</td>
</tr>
<tr>
<td></td>
<td>- Preferred specific MFPM</td>
<td>0.0125 **</td>
</tr>
</tbody>
</table>

Notations for p-values

** ----- significant

*** ---- highly significant

**** --- very highly significant
5.7.2 Socio-cultural and socio-economic variables

The differences in breastfeeding period, preferred number of children and education level among the different tribes was statistically significant ($p < 0.01$) as presented in Table 25.

Preference for shorter breastfeeding periods of less than two years was significantly higher among the Zaramo than among other tribes ($p < 0.025$). Likewise preference for number of surviving children was different among the tribes. It was statistically significant that the Masai preferred to have more living children (7 and above) than other tribes who preferred to have 4-5 children ($0.01 < p < 0.025$).

Education level also differed significantly among the different tribes. The Masai were the least educated compared to other tribes ($p < 0.001$).

There was no statistical significant difference between socioeconomic variables and the selected dependent variables (Table 25).
Table 25. Relationships Between Cultural and Economic Variables and Selected Dependent Variables

<table>
<thead>
<tr>
<th>Cultural variables</th>
<th>Dependent variables</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribes</td>
<td>- Education level</td>
<td>$7.648 \times 10^{-6}$***</td>
</tr>
<tr>
<td></td>
<td>- Age at first pregnancy</td>
<td>0.6310</td>
</tr>
<tr>
<td></td>
<td>- Preferred age at first pregnancy</td>
<td>0.9836</td>
</tr>
<tr>
<td></td>
<td>- Total pregnancies</td>
<td>0.3370</td>
</tr>
<tr>
<td></td>
<td>- Breastfeeding period</td>
<td>$1.974 \times 10^{-3}$**</td>
</tr>
<tr>
<td></td>
<td>- Number of living children</td>
<td>$6.479 \times 10^{-3}$***</td>
</tr>
<tr>
<td></td>
<td>- Preferred number of living children</td>
<td>$1.920 \times 10^{-3}$***</td>
</tr>
<tr>
<td></td>
<td>- Preferred sex of children</td>
<td>0.1365</td>
</tr>
<tr>
<td></td>
<td>- Present family planning practice</td>
<td>0.3873</td>
</tr>
<tr>
<td>Socio-economic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>variables</td>
<td>Dependent variables</td>
<td>p-values</td>
</tr>
<tr>
<td>Income</td>
<td>- Age at first pregnancy</td>
<td>0.7627</td>
</tr>
<tr>
<td></td>
<td>- Offspring mortalities</td>
<td>0.3253</td>
</tr>
<tr>
<td></td>
<td>- Preferred number of children</td>
<td>0.5230</td>
</tr>
<tr>
<td></td>
<td>- Present family planning practice</td>
<td>0.2395</td>
</tr>
<tr>
<td></td>
<td>- Preference for specific MPPM</td>
<td>0.2995</td>
</tr>
</tbody>
</table>

Notations for p-values:

*** ---- Highly significant

**** ---- Very highly significant
5.7.3. Formal education

Table 26 shows the statistical relationship between the education level of the respondents and selected dependent variables.

Preferred breastfeeding period and age at first pregnancy was significantly higher among women who had attended school than among those who had not \((p < 0.01)\). It was also observed that high present practice and preference for future use of modern contraceptives was significantly higher among women who had attended school than among those who had not \((p < 0.05)\). There was also a statistical significant difference between the education level of the respondents and offspring mortality events \((p < 0.03)\).

There was a statistically significant difference between education and preference for breastfeeding period among the women. Women with education preferred to breastfeed for longer periods \((2+\text{ years})\) than those with no education who preferred to breastfeed for shorter periods \((1-2\text{ years})\) \((p < 0.001)\). There was also a statistically significant difference between education of the women and age at first pregnancy preference. Women with education preferred older ages at first
pregnancy (17 years and above) while non-educated women preferred younger ages at first pregnancy (17 years) \( (p < 0.001) \).

Table 26. Relationship Between Education Level and Selected Dependent Variables

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Dependent variables</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Age at first pregnancy</td>
<td>0.0997</td>
</tr>
<tr>
<td></td>
<td>- Total pregnancies</td>
<td>0.2578</td>
</tr>
<tr>
<td></td>
<td>- Preferred breastfeeding period</td>
<td>(2.86 \times 10^{-3} ***)</td>
</tr>
<tr>
<td></td>
<td>- Preferred age at first pregnancy</td>
<td>(1.044 \times 10^{-3} ***)</td>
</tr>
<tr>
<td></td>
<td>- Offspring mortalities</td>
<td>0.5937</td>
</tr>
<tr>
<td></td>
<td>- Number of living children</td>
<td>(7.340 \times 10^{-7} ****)</td>
</tr>
<tr>
<td></td>
<td>- Present MFPM practice</td>
<td>0.0799</td>
</tr>
</tbody>
</table>

Notations for p-values:

*** --------- Highly significant
**** --------- very highly significant
6.0 DISCUSSION

Results from this study have shown a low prevalence of modern contraceptive use (9.2%). This supports observations of other researchers (Caldwell 1975, World Population Report 1985, Parker and Segal 1986). The findings also confirm those of earlier reports by Carrasco (1981), Nortman (1982) and others referenced in respective sections that a diversity of factors directly or indirectly influence modern contraception practice.

6.1. SOCIO-DEMOGRAPHY AND MODERN CONTRACEPTION.

6.1.1 Age

In the present study age has been found to affect modern family planning practice as also reported by Muia (1985) and Trussel (1986). The distribution of the prevalence of modern contraceptive use by age is comparable to that observed by the World Fertility Survey (1982) and Nyange (1990). However, the factors leading to this distribution were much different. While in Bagamoyo the reasons for the differential
contraceptive use among age groups were related to contraceptive aspects, Carrasco (1981) and Nortman 1982) gave low fecundity among the young and old ages and high fecundity among the middle ages as a reason for the differential contraception practice.

6.1.2 Marital status

The high prevalence observed for present and future contraceptive use among the married women than among the non-married is not unique in Bagamoyo. Bongaarts (1978), Joesoef (1988), Khalifa (1988), The National Demographic Survey Report of Kenya (1989) and Moreno and Goldman (1991) made the same observations. According to them the main reasons for more use among the married women were husband support or male domination for decision to use or not use modern contraceptives. This study, however, was not able to identify the type of husband support or disapproval of use, as this was beyond the scope of this work.
6.1.3 Child bearing period and parity

A number of factors and child bearing practices affect the length of child bearing period. Trussel (1986) observed that the mother’s health and child survival are the most important factors influencing child spacing. The factors were also observed in Bagamoyo and these included early onset and lengthy child bearing periods, desired breastfeeding and child spacing intervals. These factors have a bearing on the length of child bearing period given that a certain number is desired. For this study, child bearing period was increased by early pregnancies and late births.

Tendency to bear as many children as possible observed in the present study, may be explained by a number of reasons. These include provision of labour for household tasks and agricultural/pastoral work and offsetting of the effect of offspring mortality as also shown by Betrand (1989), and Oyemade and Ogunmuyiwa (1989). Apart from these reasons, couples and individuals have in mind a desired number of children and balancing of the sexes. In the present study the number was 4-5 children. The desire to have a given number of children has also been made by Jejeebhoy (1984)
6.1.4 Child spacing

In Bagamoyo, breastfeeding and pregnancy intervals of at least two years are desired so as to enhance the health of both mother and child. However, intervals shorter than two years that occurred were most likely intended to replace the lost offsprings. Short intervals of child spacing were also reported in Nigeria by Oyamade and Ogunmuyiwa (1981) where women with widely spaced children were ridiculed because they could end up with few children. The community in Bagamoyo feared that modern contraceptives threaten fertility and for this reason they were discouraged while abstinence from sex was strictly observed.

6.1.5 Sex preference

In rural communities both sexes are required to fulfil different roles as the division of labour is strict. Most of the respondents in the present study expressed this view. Each of the sexes had an important role in land cultivation or livestock keeping. The implication then is that child bearing would continue in an attempt to have both sexes of the children. In this study the present practice of modern contraception and preference for future use of specific modern contraceptives was
lower among women who did not have either a son or a daughter and higher practice among those with both sexes of living children. These results expressed need for a sex that a couple did not have and support those by Elrich and Elrich (1970) and Oyeka (1989), who reported that modern contraceptives were less likely to be used by women with no sons nor daughters in attempt to have a child of a sex they did not have. These results however, differ from those by Bulatao and Fawcett (1983) and Muna (1990) who reported stronger need for sons than daughters and non-use of MFPM in attempt to get a son. Although mothers stressed the need to have at least 2 or 3 children before embarking on modern contraception, preferred sex composition noted by Karki (1988) was not detected in this study.

6.1.6 Offspring mortalities

Ideally, there should not be high infant mortality when health and family planning services are adequate. However, in many societies offspring mortalities reportedly have effect on contraceptive use. In the Bagamoyo community infant mortalities were observed at all ages and increased with age of
mothers. This possibly was one of the major causes of low practice and preference for modern contraception practice.

The report by Betrand (1989) that high parity in the developing countries offsets offspring life losses has been supported by the findings of this study. Spacing intervals were shorter where miscarriage or death of a child occurred at any period before and during breastfeeding. In this case Conception was immediate in attempt to replace the dead offsprings.

The observed low prevalence and preference for future use of modern methods (13.7% and 9.6% respectively) for mothers who had lost more offsprings (3+) compared to those who had lost 1 or 2 offsprings shown by the present study suggests resistance to practice and adoption of MFPM with high mortalities. These findings are supported by those of Casteline (1989).

It is clear that demographic factors which either prevent/limit offspring life losses or encourage/ensure child survival favour traditional family planning methods. Modern family planning methods which are perceived, suspected or believed to threaten life of a child are strongly discredited and avoided. This is noted in the
current study where 84.8% of the respondents gave threat to fertility and health by modern contraceptives as a reason for the current non-practice of modern contraception.

6.2. SOCIAL-CULTURE AND MODERN CONTRACEPTION

Demographic factors discussed above and their effect on modern contraception do to a great extent reinforce socio-cultural practices. The observation that breastfeeding is not adequate for family planning is not confined to this study and neither are the supplementary methods of abstinence and withdrawal (coitus interruptus). Bongaarts (1978), Jain et al (1981) and Eslami (1990) made the same observations.

Important to be noted in this study is that traditional family planning methods were practised in order to aid child spacing rather than to delay first pregnancies. A similar observation has been made by Walle and Walle (1988). With this in mind, low contraceptive use may be explained by the fact that the community does not appreciate the need for modern contraception at earlier and older ages. Since in the earlier ages they still need to achieve the desired family size and in the later
ages fecundity is low.

Higher use of traditional family planning methods than the modern methods reported by Ntonzi and Kabera (1988) has been revealed in this study. This was possible because the traditional methods besides being widely and well known are also considered safe to the health of both mother and child. On the contrary the modern methods are less known and feared to threaten health and life.

Polygynous marriages in the community have contributed not only to low modern contraception practice but also may discourage husband support since it is accepted that sexual abstinence is for women and not for men as also reported by Walle and Walle (1988).

6.3. SOCIO-ECONOMY AND MODERN CONTRACEPTION

The economic activities in Bagamoyo are subsistence farming, cattle rearing in the case of the Masai and fishing along the coastal areas. Most of the women (90%) were subsistence farmers. The subsistence economy requires human labour which over time has lead to dependency on family labour for the activities. With this dependency, pronatalism has become inevitable and part of the
culture of the society. The culture is not likely to change unless better and technological economy replaces it. Increased modern contraceptive use with improvement in economic status has been observed (Baulier 1984, World Fertility Survey Report 984). On the other hand, Gubhaju (1984) and Mbugua (1986) found that women were more likely to continue to depend on children for farm and domestic work if technology did not increase their incomes, an observation which may explain the persistent resistance to modern family planning practice.

6.4. RELIGION AND MODERN CONTRACEPTION

In this study both the Moslem and Christian groups practiced modern contraception. The observation agrees with that made in the National Demographic Survey (1989) in Kenya and those by Ferguson (1990) which showed that religion did not affect contraception practice.

In this same study, the high prevalence of contraceptive use among the Moslems (95%) confirm findings of Moreno and Goldman (1990) who observed that contrary to what is commonly believed, Islam is not of necessity against modern contraceptives.
Traditional type of education was common in the past and in some places still is in African societies. It is expected to be particularly common among rural communities and pastoralist nomads as was observed in this present study where among the indigenous people the proportion getting traditional education was high. Close adherence to "unyago" was evidence given that a higher proportion about (40%) practised traditional family planning than those practising modern family planning which was 9.2%. Great adherence to practice of traditional family planning compared to the modern methods has also been reported in Uganda by Ntonzi and Kabera, (1989). The "unyago" greatly prepares adolescents for motherhood by inculcating in them the expected sexual behaviour although in the case of child spacing the expected intervals are not achieved due to high offspring mortalities which require immediate replacement.

Formal education is reported to influence age at first pregnancy and by extension contraception practices. However, since in Bagamoyo education level is practically up to 8 years only, the effect was not very obvious. Nonetheless a higher
proportion of those who had schooled for up to 8 years preferred to adopt modern contraceptive use.

6.6. PROBLEMS RELATED TO MODERN FAMILY PLANNING AND MODERN CONTRACEPTION PRACTICE

6.6.1 Family Planning Programmes

GTZ had from its inception introduced most of the contraceptives found in most FPP elsewhere and for easier outreach government support has integrated family planning with MCH services. It was also highly strategic that FP services were community based.

Surprising, however, contraceptive use was very low (9.2%). The knowledge of the methods was also low. The observed drop of number of surviving children from 4.3 to 3.3 was contributed by mortalities and practically not by contraceptive use meaning that in Bagamoyo modern contraception practice may not be a priority for the community. A number of findings explain the set back of the programme efforts.

Although the FPP in the studied community had set strategies to attract clients, findings show that the basic needs of the community were overlooked and as a result unmet. This may have
contributed to the unchanged attitude and low acceptance of the contraceptives.

Obvious also in the community was the low knowledge of modern contraceptives. In addition, the seminars conducted and intended to educate the population on issues related to modern family planning did not reach the target population at grassroot level. This was shown by the small number of respondents who ever attended the seminars from the programme. The selected representatives also did not take the acquired knowledge to those whom they represented.

It is highly likely that the MCH personnel are overworked and would be least motivated to have additional work with no additional pay. Under this set up, there are follow up problems. Numerous other problems which may contribute to the low acceptance/practice were observed by the researcher. The village health workers for example were not motivated. They did not have transport and they claimed that they could not reach the clients easily especially considering that the villages cover a large area. One needed at least a bicycle to have a wide coverage. The VHW also indicated that they were not paid by their respective villages as was the agreement. To the
community modern contraception is in no way a priority.

Further, the researcher observed that some of the VHW were too young to deal with sensitive child bearing issues among the elderly. There could be a high possibility that they shied away from playing their role.

6.6.2 Attitudes towards modern contraceptives and their side effects

In the present study little knowledge and the fear for the modern contraceptives were remarkably high. This may also help to explain the low acceptance of the modern contraceptives. It is highly possible that the reported accidental pregnancies and side effects while on contraceptives were caused by mismanagement during practice. These in turn may have created distrust of the contraceptives resulting in high defaulting and low acceptance. Side effects from ICUD and pills have been reported by Stephen and Chamratrithirong (1988). Lianda (1989) also reported that errors in use (sometimes purposive) of the contraceptives contributed to their ineffectiveness and side effects. This study, however, could neither discern the type of error
nor could it establish whether the errors were purposive or not.

Other reasons which may explain the low acceptance include the perceived danger of modern contraceptives on breast milk and the risk the milk may have on the breastfeeding children. Mothers feared to use modern contraceptives during breastfeeding as was also observed by Hull (1981) and WHO (1988). Naturally this is a sufficient cause for negative attitude and non acceptance of the modern methods.

Future use of the methods depended on better knowledge as was shown by mothers who stressed the need to understand these methods better before they could start using them. More interesting, however, was the basis of preference. Convenience of application was the criterion for choice. The pills and the injectables were considered convenient for use. The most inconvenient methods reported were the loops and tubal ligation. Loop application was described to involve too much and unnecessary exposure to the personnel. Tube ligation was feared because it involved anaesthesia and operations. These findings agree with those by Philliber and Philliber (1985) who found out that tubal ligation was feared for the same reasons.
Despite the many obstacles sited which disfavour modern contraception acceptance in Bagamoyo, there are high chances of success of the programme given that after explanation and demonstration of the modern contraceptives there was a higher preference for future use than for the traditional methods.
7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions:

Modern contraceptive prevalence of 9.2% in Bagamoyo district is still low even after two years of FPP. There are underlying, intermediate and immediate problems causing the low modern FP acceptance.

The underlying causes are mainly the effects of socio-economic and socio-cultural factors. The prevailing subsistence economy works against social development efforts. The low incomes make the use of improved agricultural techniques impossible. The community, therefore, continues to depend on family labour for all the agricultural activities and hence the need for many children. Modern contraceptive use is therefore, discouraged for fear of reduction of fertility.

About 40% of the study community accept pregnancy at early ages (<15-16 years) and the Masai's practice of polygyny remove the need for modern family planning. Introduction of sexual
education at adolescence ("unyago"), observance of virginity to marriage, the practice of sexual abstinence during BF period and prolonged breastfeeding, are traditional practices considered safe, not threatening fertility and are preferred to modern family planning contraceptives.

The low level of education is also a major intermediate factor which causes the low modern family planning acceptance in the area. The high non-school attendance (35%), the low formal education level and the negligible adult education hinder the acquiring of knowledge of modern family planning techniques and appreciation of benefits of contraception.

Offspring mortality is an immediate problem leading to low acceptance of MFP. High offspring mortalities have encouraged strong adherence to the traditional FP practices.
7.2 RECOMMENDATIONS

1. Efforts should be made to increase the level of education of women.

2. Education packages should be modeled with the educational background of participants in mind so as to be understood.

3. Methods to improve the economic conditions of the community need to be identified and implemented.

4. Strategy to reduce infant mortality through improvement of health services and continued immunization and therefore increase child survival should be sought.

5. More family planning options e.g. natural family planning (NFP), which may be more suited to and easily accepted by groups of people with varied religious and cultural beliefs and practices and those who for medical reasons do not wish to use the modern methods should be supported, encouraged and incorporated in existing family planning programmes.
REFERENCES


Parker, W., Segal, J. 1986. Prevalence of Contraceptive Use in Developing Countries. Rockefeller Foundation.


Appendix 1: A Map of Bagamoyo District

## Appendix 2: WOMEN’S QUESTIONNAIRE

### IDENTIFICATION

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<tr>
<th>Code</th>
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<td>2</td>
<td>Date of interview</td>
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<td>3</td>
<td>Interview results</td>
</tr>
<tr>
<td>1</td>
<td>Completed</td>
</tr>
<tr>
<td>2</td>
<td>Partly completed</td>
</tr>
<tr>
<td>3</td>
<td>Interviewee not at home</td>
</tr>
<tr>
<td>4</td>
<td>Interview postponed</td>
</tr>
<tr>
<td>5</td>
<td>Refused to be interviewed</td>
</tr>
<tr>
<td>4</td>
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</tr>
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</tr>
<tr>
<td>2</td>
<td>English</td>
</tr>
<tr>
<td>6</td>
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</tr>
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<td>1</td>
<td>Not used at all</td>
</tr>
<tr>
<td>2</td>
<td>Sometimes</td>
</tr>
<tr>
<td>3</td>
<td>Not at all</td>
</tr>
<tr>
<td>7</td>
<td>Division</td>
</tr>
<tr>
<td>8</td>
<td>Sub-division</td>
</tr>
<tr>
<td>9</td>
<td>Village</td>
</tr>
<tr>
<td>10</td>
<td>Rural/urban</td>
</tr>
<tr>
<td>11</td>
<td>Household number</td>
</tr>
</tbody>
</table>

122
Appendix 1: A Map of Bagamoyo District

Source: Ishumi, A. G. M., Community Education and Development
Nairobi, Kenya Literature Bureau, 1981.

Scale = Scale = 1 : 1,000,000
## IDENTIFICATION

1. Interviewer’s name __________________

2. Date of interview __________________

3. Interview results ____________________
   - completed _________________________ 1
   - partly completed ___________________ 2
   - interviewee not at home _____________ 3
   - interview postponed _________________ 4
   - refused to be interviewed ___________ 5

4. Next visit: Date ______ Time _____

5. Language used in interview:
   - Kiswahili _________________________ 1
   - English ________________________ 2

6. Use of translator:
   - not used at all ____________________ 1
   - sometimes ________________________ 2
   - not at all ________________________ 3

7. Division ___________________________

8. Sub-division ______________________

9. Village ___________________________

10. Rural/urban _______________________

11. Household number ___________________
12. Household head
   - Name ____________________________
   - Male _____________________________
   - Female __________________________

13. Husband's/partner's information:
   - Name _____________________________
   - Age (years) _____________________
   - Occupation ______________________

**Respondent's particulars**

14. Full name _______________________

15. Date of birth _____________________

16. Age in years _______________________

**Education**

17. Have you ever attended school?
   - Yes ______________________________ 1
   - No _______________________________ 2

18. If yes, what was the highest class reached?
   - Class ____________________________

19. If no, have you ever attended adult education classes?
   - Yes ______________________________ 1
   - No _______________________________ 2

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20. Can you read posters/news papers?
- Yes ____________________________ 1
- No ______________________________ 2

21. In which language can you read?
- Kiswahili _________________________ 1
- English __________________________ 2
- Other language(s) (specify) _______ 3

Ethnicity
22. What is your tribe?
- Kwere ____________________________ 1
- Zaramo ____________________________ 2
- Zigua _____________________________ 3
- Doe ________________________________ 4
- Masai ______________________________ 5
- Others (specify) ____________________ 6

Religion
23. What is your religion?
- Islam _____________________________ 1
- Catholic __________________________ 2
- Lutheran __________________________ 3
- Anglican __________________________ 4
- Traditional ________________________ 5
- Others (specify) ____________________ 6
24. Are you employed?
- Yes ____________________________ 1
- No ______________________________ 2

25. If yes, what is your employment?
- Mention __________________________

26. If no, what is your occupation?
- Crop farming _______________________ 1
- Animal farming ______________________ 2
- Fishing _____________________________ 3
- Business (specify) _________________ 4
- Others (specify) _________________ 5

27. Estimate your monthly income
(monetary) from all sources in Tsh.
- Less than 1000/= _____________________ 1
- 1000/= to 1999/= ___________________ 2
- 2,000/= to 2,999/= _________________ 3
- 3,000/= to 3,999/= _________________ 4
- 4,000/= to 4,999+___________________ 5

28. Estimate your monthly expenditure
(monetary)
- Less than 1000/= _____________________ 1
- 1000/= to 1999/= ___________________ 2
- 2,000/= to 2,999/= _________________ 3
- 3,000/= to 3,999/= _________________ 4
- 4,000/= to 4,999+___________________ 5
29. Which and how many of the following do you possess?

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
<th>Value in sh.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>______</td>
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<tr>
<td>Bicycle</td>
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<tr>
<td>Sewing machine</td>
<td>______</td>
<td>3</td>
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<td>Cooker:</td>
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<tr>
<td>- Gas</td>
<td>______</td>
<td>4</td>
</tr>
<tr>
<td>- Electric</td>
<td>______</td>
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<td>- Kerosine</td>
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<tr>
<td>- Charcoal</td>
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<tr>
<td>- Fridge</td>
<td>______</td>
<td>8</td>
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<tr>
<td>- M/cycle</td>
<td>______</td>
<td>9</td>
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<tr>
<td>- Boat</td>
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<tr>
<td>- Others</td>
<td>______</td>
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<tr>
<td>(specify)</td>
<td>______</td>
<td>11</td>
</tr>
</tbody>
</table>

Marital status

30. Are you married?
- Yes ____________________________ 1
- No ____________________________ 2

31. If no go to question 34.

32. If yes, what type of marriage?
- Monogamous ____________________ 1
- Polygamous ____________________ 2
33. How many times have you married?
   Mention __________________________

34. If not married, have you ever married before?
   - Yes ______________________________ 1
   - No ______________________________ 2

35. If yes, what happened to your earlier marriage?
   - We separated __________________ 1
   - I was divorced _________________ 2
   - My husband died ________________ 3

36. If not married, with whom do you live?
   - With parents ____________________ 1
   - With my fiance _________________ 2
   - With my friend __________________ 3
   - With my sister __________________ 4
   - With my brother ______________  5
   - Others (specify) ______________  6

Information on child bearing

37. Total pregnancies _____________

38. Age at first pregnancy __________

39. Total Pregnancy losses __________

40. Total deliveries _________________

41. Total still births ________________

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42. Total live births

43. Total deaths after births

44. Number of living children

45. Number of living daughters

47. Number of living sons

Table (i). Information on the respondent’s offsprings
(from the eldest to the youngest)

<table>
<thead>
<tr>
<th>S/N</th>
<th>NAME</th>
<th>SEX</th>
<th>DATE OF BIRTH</th>
<th>LIVING</th>
<th>AGE IN YEARS</th>
<th>MARITAL STATUS</th>
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<td>1</td>
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<td>15</td>
<td></td>
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</tr>
</tbody>
</table>

CODES: Sex:
- Male __ M
- Female __ F

Living status:
- Yes ___ 1
- No ____ 2

Marital status:
- Married ___ 1
- Not married ___ 2

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Information on the respondent's family planning

47. Do you listen to family planning (FP) radio programmes?
   - Yes _____________________________ 1
   - No ______________________________ 2

48. Do you attend seminars organized for women affairs?
   - Yes _____________________________ 1
   - No ______________________________ 2

49 Who organizes these seminars?
   - Village Health Workers _________ 1
   - UMATI ___________________________ 2
   - MCH leaders ______________________ 3
   - UWT ______________________________ 4
   - Others (specify) ___________________ 5

50. Do you discuss FP in the seminars?
   - Yes ______________________________ 1
   - No _______________________________ 2

51. Do you like to participate in seminars and discuss matters on FP?
   - Yes _______________________________ 1
   - No ________________________________ 2
52. Have ever heard anything about FP from sources other than the radio and seminars?
   - Yes __________________________  1
   - No ____________________________  2

53. If yes mention the sources.
   - Government hospital __________  1
   - MCH clinic _____________________  2
   - UMATI __________________________  3
   - VHW ____________________________  4
   - Friend __________________________  5
   - Traditional healer ______________  6
   - Traditional birth attendant ___  7
   - Husband _________________________  8
   - Others (specify) ____________________  9

54. Have you ever taken any measure to avoid pregnancy?
   - Yes _____________________________  1
   - No ______________________________  2

55. If yes, why?
   - To delay the first pregnancy ___  1
   - To space births _________________  2
   - To end child bearing _____________  3
   - Health problems _________________  4
   - Others (specify) _________________  5
56. If no why?
- I take what God gives
- Every child has its own blessings
- It is against my religion's teachings
- It is against the traditional norms
- My husband/partner disapproves
- I need more children
- I need a son
- I need a daughter
- I fear health problems
- I see no reason for doing so
- Other reasons (specify)

57. What is family planning?
Explain as you understand
Traditional Family Planning

There are various traditional FP methods, refer to Table (ii).

Table: (ii) Traditional Family Planning Methods

<table>
<thead>
<tr>
<th>METHODS</th>
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<td>Withdrawal</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Polygyny</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Others (specify)</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

CODES: 201 Methods known spontaneously  
202 Methods recognized after probing  
203 Ever used methods  
204 Discontinued methods  
205 Presently used methods  
206 Preferred methods
58. Do you know any of them?
   - Yes ____________________________ 1
   - No _____________________________ 2

59. If yes, mention them (Interviewer circle code(s) for the mentioned methods in 201 Table (ii)).

60. If no, have you ever heard of any of the following methods? (Interviewer mention and explain each method in Table (ii), then circle codes for any of the methods that are recognized in 202).

61. Have you ever used any of the methods to avoid pregnancy?
   - Yes ____________________________ 1
   - No _____________________________ 2

62. If yes, mention all the methods you have ever used. (Interviewer circle the code(s) for the mentioned methods in 203).

63. Have you ever dropped any of the ever used method(s)?
   - Yes ____________________________ 1
   - No _____________________________ 2
64. If yes, mention them. (Interviewer circle codes of the methods that are mentioned in 204).

65. Why did you discontinue the use?
   - Methods were not reliable ______ 1
   - I needed a child ________________ 2
   - I was breastfeeding _____________ 3
   - It/they caused health problems _ 4
   - Method(s) not easily available all the time ___________________ 5

66. Do you at present practice any of the traditional methods?
   Yes ___________________________________________ 1
   No _____________________________________________ 2

67. If yes, mention the methods.
   (Interviewer circle the code(s) of the mentioned methods in 205).

68 How often do you use these methods?
   - Once in a while (specify method) ___________________________ 1
   - Often (specify method) _________ 2
   - All the time __________________________ 3
69. Do the methods work as expected?
   - Yes _____________________________ 4
   - No ______________________________ 5

70. Where from do you get the TFP services?
   - From the TBA ____________________ 1
   - From the traditional healer ____ 2
   - From my mother _________________ 3
   - My own self discipline _________ 4
   - Other sources (specify) ________ 5

71. If at present you do not use the traditional methods what are your reasons?
   - The methods are not reliable ___ 1
   - Husband/partner/parents disapprove _________________ 2
   - I am pregnant _________________ 3
   - I am breastfeeding _____________ 4
   - I am on MFPM _________________ 5
   - I am trying to get pregnant ___ 6
   - Other reasons (specify) ________ 7

72. Which traditional family planning methods do you prefer?
Mention them. (Interviewer circle the code(s) of the mentioned methods in 206.)
Modern Family Planning

There are also modern methods used to avoid pregnancy, refer to Table (iii).

Table (iii). Modern family planning methods

<table>
<thead>
<tr>
<th>METHODS</th>
<th>301</th>
<th>302</th>
<th>303</th>
<th>304</th>
<th>305</th>
<th>306</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral pills</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Injectables</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Intra-uterine device (IUD)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Condoms</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Foaming tablets</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Tube ligation (TL)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Diaphragm</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Vasectomy</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Others (specify)</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

CODES:

- 301 Methods known spontaneously
- 302 Methods known after probing
- 303 Ever used methods
- 304 Discontinued methods
- 305 Presently used methods
- 306 Preferred methods

73. Do you know any of the methods?

- Yes ________________________________ 1
- No ________________________________ 2

136
74. If yes, mention them. (Interviewer circle the codes of the mentioned methods in 301 Table (iii).

75. If no, have you ever heard any of the following methods? (Interviewer mention and explain each of the listed methods, then circle the codes of the methods that are recognized in 302.

76. Have you ever used any of the MFPM?

- Yes _____________________________ 1
- No ______________________________ 2

77. - If yes, mention them. (Interviewer circle the codes of the methods that are mentioned in 303).

78. Have you ever discontinued any of the methods that you ever used? Mention the methods that you ever discontinued (Interviewer circle the code(s) that are mentioned in 304).
79. Why did you drop the methods?
   - They caused health problems ___ 1
   - The methods were not reliable ___ 2
   - The service outlet was too far from home ____________________________ 3
   - I wanted to try other TFPM _____ 4
   - I was pregnant ________________ 5
   - I was breastfeeding __________ 6
   - I needed a child _______________ 7
   - Other reasons (specify) ________ 8

80. Are you at present using MPPM?
   - Yes _____________________________ 1
   - No _______________________________ 2

81. If yes, mention them. (Interviewer circle the codes of the mentioned methods in 305).

82. How often do you use the methods?
   - Sometimes ________________________ 1
   - Often _____________________________ 2
   - Continuously ______________________ 3

83. Are the methods working as expected?
   - Yes ______________________________ 1
   - No _______________________________ 2
84. If using any modern methods, what is the outlet of the method(s)?
- Government hospital _____________ 1
- MCH clinic ______________________ 2
- Government dispensary _________ 3
- UMATI ___________________________ 4
- VHW ______________________________ 5
- Private pharmacy _____________ 6
- Other sources (specify) ________ 7

85. Why do you use this outlet?
- It is the only one available ___ 1
- The services are good ________ 2
- The method(S) is/are always available _____________________ 3
- It is close home ________________ 4
- The contraceptives are provided free of charge _____________ 5
- Other reasons (specify) ________ 6

86. How long does it take you to reach the source?
- Time: Hours ____ Minutes ___

87. Was/Were the method(s) of your own choice?
- Yes _____________________________ 1
- No ______________________________ 2
88. If yes, why did you prefer it to others?
- The method(s) is/are always available ______________________ 1
- Method(s) does/do not cause health problems ________________ 2
- Method(s) is/are easy to use ___ 3
- Method(s) is/are reliable ______ 4
- Other reasons (specify) _______ 5

89. Which MFPM do you prefer?
Mention them. (Interviewer circle the codes of the mentioned methods in 306).

90. Why the preference?
Reason(s) ______________________

91. What is your opinion about family planning?
- It is time wasting __________ 1
- It is against God’s will ______ 2
- It is against my religion ______ 3
- It is against the traditional norms ________________________ 4
- Others (specify) ____________ 5
92. Which of the following do you prefer?
   - Traditional FP 1
   - Modern FP 2
   - Both traditional and modern FP 3

93. Why this preference?
   - The methods are safe 1
   - The methods are reliable 2
   - The methods convenient in use 3
   - Other reasons (specify) 4

94. What in particular would you like to know about modern family planning?

95. In your opinion, which age do you think is best for first pregnancy?
   - Mention

96. Why this age?
   Reasons

97. For how long do you think a baby should BF before it is completely weaned.
   Period in years

98. Why this period?
   Reasons
99. How many children would you prefer to have?
Number _______________________________

100. Why this number?
Reason ______________________________

101. What is your sex preference for your children?
Girls only ___________________________ 1
Boys only _____________________________ 2
Both sexes ____________________________ 3
Any sex _______________________________ 4

102. Why this preference?
Reasons ___________________________________________________
__________________________________________________________
### Annex 1. A Guide to Methods Used in Modern Family Planning

<table>
<thead>
<tr>
<th>Method</th>
<th>MECHANISM OF USE</th>
<th>FAILURE RATE (%)</th>
<th>ADVANTAGES</th>
<th>DISADVANTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral pills</td>
<td>- swallowing - Suppress ovulation</td>
<td>1-8</td>
<td>- Highly effective - Easy to use - Easily reversible - Independent of intercourse</td>
<td>- Need strict daily use - Causes side effects (nausea, fatigue and depression)</td>
</tr>
<tr>
<td>Injectables</td>
<td>- injected - Inhibits ovulation</td>
<td>&lt; 1</td>
<td>- Highly effective - Long acting - Easy to use - Independent of intercourse</td>
<td>- May cause side effects - Requires timely injections - Delay return of fertility</td>
</tr>
<tr>
<td>Loops (IUDs)</td>
<td>- Placed in the uterus - Immobilizes sperm</td>
<td>&lt; 1</td>
<td>- Highly effective - Long term acting - Highly reversible - Independent of intercourse</td>
<td>- Insertion and removal by trained personnel - May be painful during insertion - May cause irregular or heavy bleeding</td>
</tr>
<tr>
<td>Tube ligation (TL)</td>
<td>- tube cut tied and clipped - Simple surgery</td>
<td>0.2-1</td>
<td>- Highly effective - Permanent and non-reversible</td>
<td>- Permanent and irreversible - May cause pain, discomfort, bleeding and infection</td>
</tr>
<tr>
<td>Vasectomy (male sterilization)</td>
<td>- Tubes cut, tied and clipped - Simple surgery</td>
<td>0.15-1</td>
<td>- Highly effective and safe - No side effects</td>
<td>- May be Permanently and irreversibly - May be painful - May cause bleeding, swelling and infection</td>
</tr>
<tr>
<td>Condoms</td>
<td>- Placed over erect penis before intercourse - Prevents sperm from reaching the vagina</td>
<td>15-20</td>
<td>- Entirely user controlled - Protects against sexually transmitted diseases</td>
<td>- May disrupt activity and reduce pleasure</td>
</tr>
<tr>
<td>Condoms</td>
<td>- Placed over erect penis before intercourse - Prevents sperm from reaching the vagina</td>
<td>15-20</td>
<td>- Entirely user controlled - Protects against sexually transmitted diseases</td>
<td>- May disrupt activity and reduce pleasure</td>
</tr>
<tr>
<td>Diaphragm (Cervical cups)</td>
<td>- Rubber devices inserted in vagina - Prevent sperms from reaching the uterus</td>
<td>5-25</td>
<td>- User controlled</td>
<td>- May cause infection</td>
</tr>
<tr>
<td>Foaming tablets and jellies</td>
<td>- Inserted deep in vagina before intercourse - Inactivate sperms - Block sperms from entering uterus</td>
<td>10-30</td>
<td>- User controlled</td>
<td>- May cause irritation</td>
</tr>
</tbody>
</table>

Source: Population Crisis Committee Washington D. C. USA
Annex 2: Educational Material

MATATIZO YA UZAZI KATIKA UMRI MDOGO

ANZA KUZAA WATOTO UFIKIAPO MIAKA 20
KWA MAISHA BORA
YA KESHO
PANGA UZAZI SASA
Annex 4: A Calendar of Selected Events in Tanzania

1945: End of Second World War
1961: Independence year of Tanganyika
1962: Republic year of Tanganyika
1964: Union Year of Tanganyika and Zanzibar
1967: Year of the Arusha Declaration
1984: Death of the Prime Minister Edward Moringe Sokoine
1985: Mwalimu Julius K. Nyerere resigned from the Presidential post