THE JOHNS HOPKINS SCHOOL OF PUBLIC HEALTH

CENTER FOR COMMUNICATION PROGRAMS

IEC FIELD REPORT NUMBER 2

# Family Planning and Reproductive Health in Zambia Today

*by*

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*January 1996*

*Suggested Citation*:
van den Borne, F., Tweedie, I. A., and Morgan, W. Family Planning and Reproductive Health in Zambia Today. Baltimore, Johns Hopkins School of Public Health, Center for Communication Programs, January 1996.



Prepared by the Johns Hopkins Center for Communication Programs with primary support from the United States Agency for International Development under the Population Communication Services project (DPE-3052-A-00-0014-00).

# Preface and Acknowledgments

This report reflects a comprehensive review of the literature on the current status of family planning and reproductive health in Zambia. An overview such as this provides a sound basis for developing a national information, education, and communication (IEC) program for family planning and reproductive health. It can also inform other, related health-care delivery efforts.

The authors wish to acknowledge the support of the USAID Mission to Zambia and Paul Hartenberger, Population Officer. Signficant contributions were also made by Gary L. Lewis, chief of the Research and Evaluation (R&E) Division, and Susan Krenn, chief of the Africa Division, of the Johns Hopkins University / Center for Communication Programs (JHU / CCP) Population Communication Services (JHU / PCS) in the conceptualization and supervision of this report and for their constructive comments. Laurie Liskin, chief of the New Independent States Division, was a major source of information, and David Awasum and Kirsten Böse provided comprehensive technical review and comments. We also gratefully acknowledge the editorial skills and advice of Johanna Zacharias and Kristina Samson of JHU / CCP and the assistance of Julianne J. Harden, a consultant. Thanks also to Faith Forsythe for her skillful assistance in preparing this document.

The analysis, interpretation, and recommendations are based on the authors' interpretation of available information. This report was written in the R&E Division by Francine van den Borne, a consultant, Ian Tweedie, Research Officer, and Winthrop Morgan, Senior Program Officer / Chief of Party / Zambia Family Services Project.

Preparation of this report was funded under Cooperative Agreement DPE-3052-A-00-0014-00 between the U.S. Agency for International Development (USAID) and JHU / CCP / PCS.

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# Summary

## ■ Zambia's Background and People

Zambia is a landlocked country in southern Africa that borders on Angola, Botswana, Malawi, Mozambique, Namibia, Tanzania, Zaire, and Zimbabwe. Zambia has nine provinces subdivided into 62 districts. Zambia's population of 9.8 million (1995) is linguistically and culturally diverse, with 72 officially recognized ethnolinguistic groups.

Overall, the population of Zambia is young and relatively urban with 68.5 percent younger than age 25 (Gaisie *et al.*,1993). Some 42 percent of all Zambians live in or near cities, making Zambia the most urban sub-Saharan state. Estimates of adult literacy rates in Zambia range from 54 percent to 75 percent—high among sub-Saharan populations.

In the early 1990s the economic situation in Zambia was critical. Since 1992 the economy has improved although the crisis is not over. Dr. Kenneth Kaunda, president of Zambia since independence from Britain in 1964, lost multiparty elections to Frederick Chiluba of the Movement for Multi-party Democracy (MMD) in 1991. Elections are scheduled to be held again in 1996.

## ■ Health Reforms

In late 1991, the government, through its National Health Policy, introduced the Reformed Health Care System to decentralize health services. Some 18 percent of the Ministry of Health (MOH) budget is now directly allocated as grants to the District Health Management Boards (DHMBs). Each DHMB manages all health activities in its service area. The MOH expects DHMBs to use their grants to plan and carry out interventions addressing the most pressing health needs. All health promotion programs are expected to coordinate closely with the Health Reforms Initiative Team (HRIT) to assure that projects are integrated with the reforms initiative and do not revert to the former, more vertical development structure.

## ■ Population and Fertility Issues

With an annual growth rate of 3.2 percent, Zambia's population increase is well above the average rate of 2.9 percent for most sub-Saharan African nations. At this rate, the population is projected to approach 12 million by the year 2000 and 21 million by 2025, unless strong measures are undertaken. Although Zambia's total fertility rate has declined from 7.1 in 1969 to 6.5 today, it remains a serious demographic concern.

The population will continue to increase rapidly in the near future because of:

- A constant high crude birth rate (49.2 in 1980; 49.5 in 1990);
- A declining crude death rate (14.8 in 1980; 11.7 in 1990);
- Population momentum—48 percent of the current population is age 14 and younger, that is, about to enter the reproductive years; 22.1 percent are women of childbearing age.

## ■ HIV/AIDS

Zambia has been extremely hard hit by human immuno-deficiency virus (HIV) / acquired immune deficiency syndrome (AIDS). Between 14 percent and 16 percent of the total adult population is estimated to be HIV-positive. Prevalence is much higher in urban (27 percent) than in rural (10 percent) areas. Some 400 to 500 people are newly infected each day. In 1993 alone, it is estimated that between 40,000 and 50,000 Zambians died of AIDS-related causes. Of these, 30 percent were children, infected by perinatal transmission. The number of annual AIDS-related deaths is likely to double by 1997.

## ■ Maternal and Child Health

The health and survival of women and children in Zambia has deteriorated in the past 15 years. Mortality among children under age five in Zambia *increased* 15 percent over the past 15 years. Hospital admissions caused by maternal complications also show an increase. Since 1990, pregnancy-related complications resulting in hospital admissions have been second only to those caused by malaria.

HIV / AIDS has probably done much to increase mortality rates of children below five years old. Although data are lacking, it may also have contributed to the increase in maternal complications by weakening women's immune systems. HIV / AIDS does not, however, account for the entire increase in below-five mortality. HIV prevalence is much higher in urban than in rural areas, yet children in rural areas face a 33 percent higher risk than urban children of dying before their fifth birthday. One observer asserts that the impact of HIV / AIDS on the increases in child mortality is "limited to worsening the already deteriorating health levels after the early years of the 1980's" (Nsemukila, 1994). Other factors, such as malnutrition, lack of access to clean water, and the inability to control fertility resulting in large families and short intervals between births, also contribute significantly to these alarming trends.

Most Zambian women and children are at increased risk of morbidity and mortality because of the fertility-related factors of large families, close birth intervals, and/or child-bearing when younger than 18 or older than 34 years. During infancy, children in Zambia born less than two years after a previous birth are three times more likely to die than babies born four or more years after the previous birth.

Some 63 percent of Zambian children were at a particularly high risk of mortality as a result of their parents' fertility behavior; 43 percent of births fell into a single high-risk category and 19 percent into more than one high-risk category. Specifically:

- Almost one-half (47 percent) were at risk because their mothers had previously given birth to three or more children;
- 15 percent of the babies were at high mortality risk because they were born less than 24 months after their mothers' previous deliveries;
- 13 percent were at risk because their mothers were older than 34;
- Another 10 percent were at risk because their mothers were younger than age 18 at the time of giving birth.

The same fertility factors—high parity, short birth intervals, and/or pregnancy when younger than 18 or older than 34 years of age—place women at high risk of maternal mortality and morbidity. Overall, almost one in five births in Zambia occurs less than 24 months after the mother's previous delivery. Young women are at particularly high risk as about 40 percent of mothers ages 15 to 19 had birth intervals of less than 24 months.

Poorly performed abortions carried out under unsafe conditions are a major cause of maternal mortality in Zambia. Under the 1972 Termination of Pregnancy Act, Zambia legalized abortion. Safe abortion is not readily available, however, and services and information are almost inaccessible, especially to the young. Death rates from deliveries and abortions are especially high among those younger than 18 years.

Increased use of family planning methods will, over time, reduce the proportion of women and children exposed to these fertility-related risk factors by enabling individuals and couples to exercise more control over their fertility.

## ■ Contraceptive Use and Awareness

The 1992 Zambia Demographic and Health Survey (ZDHS) reports that current contraceptive use is 15 percent. Some 9 percent of women are using modern methods,

while 6 percent use traditional methods. Approximately 90 percent of sexually active women report being aware of at least one modern contraceptive method. Most women are aware of the pill (85 percent), condom (73 percent), and female sterilization (71 percent). Many women are also aware of traditional methods such as withdrawal (59 percent) and periodic abstinence (40 percent).

## ■ Unmet Need and Demand for Family Planning

Of all married women, 33 percent have an unmet need for family planning services (21 percent for spacing reasons and 12 percent for limiting births). If this figure is added to the 15 percent of married women currently using a contraceptive method, then almost half (48 percent) of married women can be characterized as having a demand for family planning. Among married women who do not now use any contraceptive method, 47 percent report that they intend to use a method in the future.

## ■ Family Planning Services

Of the women using modern contraceptives, more than 56 percent receive supplies or procedures from government health facilities, 36 percent from private medical facilities, and the remaining 8 percent from other private sources such as shops, friends, or relatives. Although the pill is the modern contraceptive most commonly used, access to it is still limited.

Many service providers have limited knowledge of and skills in providing family planning services. More than 50 percent of 75 service providers at the University Teaching Hospital in Lusaka revealed that they did not feel confident about counseling women on contraception. This condition is worse in rural areas.

## ■ Young People

Traditional social institutions that once constrained sexual activity have diminished. Thus, although girls today marry later than their predecessors did, many are sexually active before marriage. Sexually active girls face a high risk of becoming pregnant. Contraceptive prevalence among women ages 15 to 19 is 3.5 percent; 1.5 percent use a modern method, and 2 percent use a traditional method. By age 17, one-third of adolescent girls have become pregnant. In 1988, one of every seven girls attending school had her first pregnancy while in school. The risk of HIV/AIDS to this age group is extremely severe given that only about 5 percent of girls ages 15 to 19 report that their partners use condoms.

## ■ Men

Although family planning professionals in Zambia recognize the need to involve men in family planning to a greater degree than in the past, little is known about men's knowledge, attitudes, and practices with regard to family planning. The ZDHS in 1992 did not interview men, and studies that have included men are few and small.

According to 1992 ZDHS data, contraceptive methods that require the participation of men– condom, withdrawal, and periodic abstinence – make up 35 percent of all contraceptive use among women. Because of difficulties supporting large families in a period of economic crisis, family planning specialists anticipate an increase in male support for contraceptive use.

## ■ Communication Channels

In response to the liberalization of media policy and legislation, more privately owned newspapers, magazines, and radio and television stations are appearing. These information channels are available mainly to the general public living in the urban areas of the Copperbelt, Central, and Lusaka provinces.

Radio is a prime source for news and entertainment. There are about 1 million radio sets in Zambia with an estimated 3.5 million listeners. In urban areas, 18 percent of all households own TV sets and 1 percent in rural areas. It is estimated that about 900,000 adult Zambians (ages 15 and above) watch the one national television station regularly. Zambia has two daily, one biweekly, and four weekly newspapers. Folk media play an increasingly important role in health communication activities. Virtually every township has an amateur community drama troupe coordinated by the Theatre and Arts Association. Many have professional troupes with interests in theater for development.

## ■ IEC Activities

To date, very little systematic coordination, documentation, or evaluation of the various family planning and reproductive health communication projects have been carried out. Relatively little has been published about the information, education, and communi-cation (IEC) components of family planning and reproductive health programs. IEC activities in Zambia have been constrained by:

- Lack of trained professional IEC personnel at national, provincial, and district levels;
- Weak coordination and collaboration among organizations and agencies involved in IEC activities;

- IEC activities carried out as isolated projects without adequate institutional bases;
- Shortages of transportation and equipment;
- Inadequate local funding;
- Lack of baseline data for designing population IEC interventions; and
- Lack of systematic monitoring and evaluation mechanisms.

In sum, to maximize and sustain the impact on health programs and strengthen gains in contraceptive use, Zambia will need to increase and coordinate IEC activities for family planning and health, emphasize institutional and human resource capacity building at both the national and local levels, and involve men and young people, as well as women, in culturally appropriate ways.

# Chapter I
# Background

## The Land and Climate

Zambia is a landlocked country in southern Africa with an area of 752,614 square kilometers that makes up 2.5 percent of Africa's total area. The country sits between 9 and 18 degrees south of the equator and shares borders with eight countries: Angola, Botswana, Malawi, Mozambique, Namibia, Tanzania, Zaire, and Zimbabwe. Zambia itself is divided into nine provinces: Central, Copperbelt, Eastern, Luapula, Lusaka, Northern, Northwestern, Southern, and Western. It is further subdivided into 62 districts.

The terrain, part of the Central African Plateau, is mostly woodland savannah with trees and tall grass typical of the Plateau. The country's average altitude is 1,127 meters above sea level. The topography changes significantly only along the northern Plateau edges, where lakes such as Tanganyika, Mwer, and Bangweulu are located, and in the west along the Zambezi River plains. Mountainous areas border Zambia in Tanzania to the north and Malawi to the east.

About 24 million hectares of Zambia's area are classified as Class 1 and 2 arable lands, although only 5 percent is cultivated. Southern and Lusaka Provinces are predominantly the maize-producing areas. Recent droughts, however, have reduced their yields. Although Northwestern and Northern Provinces are arable, they are mostly forested. Grasslands are common in the Western Province.

Zambia has a tropical climate characterized by four seasons: a rainy season from November through March, a transitional season from April to May, a cool dry period from June to August with mean temperatures between 14 and 30 degrees centigrade, and a hot dry season during September and October with mean daytime temperatures between 29 and 32 degrees centigrade in the north and northwest and 35 degrees centigrade in most of the west (MOH, 1992).

## The People

Zambia has been populated for many millennia. The earliest known fossil, the Rhodesian Man found at Broken Hill (now Kabwe) in 1921, is estimated to be between 30,000 (Kaplan, 1974) and 125,000 (Burdette, 1988) years old. According to archeologists, agriculture, cattle, and metal tools became common as long as 2,000 years ago (Fagan, 1966).

The people of Zambia are linguistically and culturally diverse. The nation has 72 officially recognized ethnolinguistic groups of the Bantu line. The major groups are the Bemba (36.2 percent), the Nyanja (17.6 percent), the Tonga (15.1 percent), the Lozi (8.2 percent), and the Northwestern group (10 percent) that includes the Kaonde, the Lunda, and the Luvale speakers. Although each of the nine provinces is multi-ethnic, the Bemba live mainly in Northern, Copperbelt, and Luapula Provinces, the Nyanja predominantly in Eastern and Central Provinces, the Tonga in Southern Province, the Lozi in Western Province, the Luvale, the Lunda, and the Kaonde in Northwestern Province, and the Lenje in Central Province (Burdette, 1988; U.S. State Dept., 1992).

The total population of Zambia today is approximately 9.8 million (1995), more than double the population in 1969 (see Table 1). Population growth continues to be rapid. Direct and tangible evidence of population pressure is currently most notable in the Lusaka and Copperbelt provinces, where more than 40 percent of the population lives. The majority of the population in these regions was attracted by economic developments along the rail line connecting the formerly wealthy Copperbelt mines with the capital city, Lusaka. Most residents lack access to adequate public services (Gaisie *et al.*, 1993). Elsewhere in the country land is plentiful, population density low, and public services minimal.

The current government has established goals to develop rural areas. Efforts to do so are hindered, however, by limited government funds and the concurrent need to rehabilitate densely populated, decaying urban infrastructures. The World Bank estimates show that during 1985-1992 the gross national product (GNP) per capita decreased at an average annual rate of 2.1 percent. During the same period the population increased by an annual average of 3.5 percent (Europe World Year Book, 1994). This situation tremendously strains the country's development efforts and negatively impacts health, education, housing, employment, food, agriculture, and the environment (MIBS, 1994).

**Table 1. Population Growth in Zambia, 1963-1990**

| Years | Population (million) | Population Growth Rate (percents) | Total Feritility Rate |
|---|---|---|---|
| 1963 | 3.5 | 3.1 | --- |
| 1969 | 4.0 | 2.8 | 7.1 |
| 1980 | 5.7 | 3.3 | 7.2 |
| 1990 | 7.8 | 3.6[a] | 7.0 |

SOURCE: ZDHS 1992.
NOTE: [a]Estimate-based projection of census data.

With an annual population increase of 3.2 percent,[1] Zambia's growth rate is well above the average of 2.9 percent for most sub-Saharan African nations. The growth rate varies from 2 percent to 6 percent among the nine provinces (Gaisie *et al.*, 1993). Although Zambia's total fertility rate (TFR—see also page 61 for abbreviations) declined from 7.1 to 6.5[2,3] between 1969 and 1992 (ZDHS 1992), it remains a serious demographic problem.

The population will continue to increase rapidly in the near future because of:

- A constant high crude birth rate (49.2 in 1980; 49.5 in 1990);
- A declining crude death rate (14.8 in 1980; 11.7 in 1990);
- Population momentum—48 percent of the current population are 14 years of age and younger and are about to enter the reproductive years (Gaisie *et al.*, 1993), and 22.1 percent are women of childbearing age (World Bank Report, 1994).

Unless strong interventions are made, the population of Zambia will reach 11.8 million by the year 2000 and 21 million by the year 2025 (Population Reference Bureau, 1993).

**Table 2. Percent Distribution of Zambian Population, by Age**

| Age Group | Percent |
|---|---|
| 0-14 | 47.3 |
| 15-24 | 21.2 |
| 25-34 | 13.6 |
| 35-44 | 7.6 |
| 45-54 | 5.3 |
| 55-64 | 3.6 |
| 65+ | 2.6 |

SOURCE: ZDHS 1992
-NOTE: N=33,933

Overall, the population of Zambia is young and urbanized. More than two-thirds (68.5 percent) of Zambians are younger than 25 years of age (see Table 2). Only 3 percent of the people are over the age of 64 (Gaisie *et al.*,1993). There is one dependent person for each adult in the population, which is a dependency rate similar to that of other sub-Saharan African countries.

[1] Projection based on the 1990 Census.
[2] Total fertility rate is the number of births per woman's lifetime.
[3] The 1992 ZDHS does not explain the decline in TFR from 7 in 1990 to 6.5 in 1992.

Some 42 percent of the people live in urban areas, making Zambia the most urbanized sub-Saharan African state. Projections indicate that this proportion will rise to 77.9 percent by the year 2025 if no interventions are undertaken. The 1989 Population Policy expressed the government's commitment to improve the living standard and quality of life for all Zambians by reducing overall population growth and rural to urban migration (Chipoma, 1990).

Most Zambians profess Christianity, although traditional, indigenous religions also thrive, and there are no strict boundaries separating the belief systems (Gaisie *et al.*, 1993). Of the organized Christian denominations, the Roman Catholic Church is the largest, with more than 2.4 million members. Other denominations that are well established include the United Church of Zambia (1 million members), the Reformed Church of Zambia (200,000), the African Methodist Episcopal Church (80,000), Seventh-Day Adventists (67,000), and the Anglican Church (40,000). Additional active denominations include a large and growing number of Christian fundamentalist groups. There are some Muslims and adherents of the Baha'i faith as well.

## Recent Political History

Called Northern Rhodesia while a colony of the British Empire, Zambia acquired independence on October 24, 1964. Dr. Kenneth Kaunda, leader of the United National Independence Party (UNIP), won Zambia's first democratic election, becoming the country's first president. In December 1972 Zambia was declared a one-party state. Not until December 1990 did Zambia become a multiparty state again. Kaunda and UNIP remained in power until October 31, 1991, when Frederick Chiluba of the Movement for Multi-party Democracy (MMD) was elected to the presidency (Europe World Yearbook, 1994). Elections are scheduled to be held again in 1996.

## The Government

Under the provisions of a new Constitution, which was approved by the National Assembly in August 1991, Zambia is a multi-party state. Executive power is vested in the President, who is the constitutional Head of State. Legislative power is vested in a National Assembly, which comprises 150 members. The President and the National Assembly are elected simultaneously by universal adult suffrage for a five-year term. The President governs with the assistance of a Vice-President and a Cabinet, whom the president appoints from members of the National Assembly. The Constitution also provides for a 27-member body, known as the House of Chiefs, which represents traditional tribal authorities. Each of Zambia's nine provinces has a minister, who is appointed by the President (Europe World Yearbook, 1994).

## The Economy

The United Nations General Assembly lists Zambia as one of the least developed countries in the world. The World Bank also classifies Zambia as a low-income country. At present , the state-owned copper mining industry is the nation's only economic base, providing more than 90 percent of Zambia's foreign exchange earnings and one-third to one-half of government revenues. The sharp decline in copper prices in the 1980s seriously affected the country's economy and its development in general (U.S. State Dept., 1992).

Peasant farming remains the dominant type of agriculture for half of the population. Maize is the main crop, both for staple food and cash. Other crops include millet, cassava, sugar, groundnuts, sorghum, wheat, and tobacco. Because of a shortage of capital, poor access to export markets, and shortage of foreign exchange, however, only a small fraction of Zambia's arable land is cultivated for commercial purposes.

In the early 1990s the economic situation in Zambia was critical. By the end of 1992 the inflation rate was approximately 200 percent per year, and the gross domestic product (GDP) was $4.2 billion (per capita GDP = $380) and declining annually by 4 percent. The country had an international debt in excess of US $7 billion. Budget deficits were widening and foreign exchange was essentially unavailable. In 1992, the situation was compounded by droughts.

As a result, the government undertook aggressive restructuring measures. Since 1992 the economy has undergone a fundamental shift through massive divestiture and privatization of publicly owned companies. In addition, the government, in collaboration with the World Bank, embarked on a belt-tightening Structural Adjustment Programme and introduced a value added taxation system in July 1995. These efforts were intended to reduce the high inflation rate, encourage development of local private industries, and diversify the country's economic base. Although the Adjustment Programme has also provided assistance under the Economic Recovery Credit Programme since 1992, the country's foreign debt remains in excess of US $7 billion (U.S. State Dept., 1992).

The economic reform plan includes privatization of most government-owned enterprises. The government does, however, retain an interest in several key sectors through a system of parastatal companies coordinated by the Zambia Industrial and Mining Company (ZIMCO). The more than 100 companies within ZIMCO contribute more than 50 percent of Zambia's GDP (U.S. State Dept., 1992).

Bilateral economic aid is provided by the United States of America, the United Kingdom, The Netherlands, Japan, Germany, several Scandinavian countries, and the European Community. In early 1992 Zambia qualified for new assistance from the World Bank based on economic reform programs. Seventeen other UN organizations and at least 25 multilateral and nongovernmental organizations (NGOs) also provide economic aid (U.S. State Dept., 1992).

## Education and Literacy

A large proportion of adults in Zambia have attended school and are literate in comparison to those in other sub-Saharan African nations. At present, however, 24 percent of girls and 15 percent of boys age 6 and older have no formal education. In 1990 UNESCO estimated the adult literacy rate at 75 percent among men and 65 percent among women (Europe World Year Book, 1994). A 1992 U.S. Department of State publication on Zambia, *Background Notes*, reported literacy at 54 percent. Some 60 percent of men and women went to primary school, while 22 percent of men and 13 percent of women attended secondary school[4,5]. Only 2 percent of men and 1 percent of women have achieved higher than secondary level education. Literacy rates are lower in rural areas, and rural residents (30 percent) are more than three times as likely as urban dwellers never to have attended school (9 percent). The Eastern Province has the highest proportion of men and women without formal education (32 percent), while the Copperbelt Province has the lowest (7 percent) (Gaisie *et al*., 1993). Zambia's Fourth National Development Plan (1989-1993) attempts to achieve universal primary education by the year 2000 (Gaisie *et al*., 1993).

## Communication Channels

In response to the liberalization of media policy and legislation, more privately owned newspapers, magazines, and radio and television stations are appearing in Zambia. The main recipients of these information channels are urban residents of Copperbelt, Central, and Lusaka Provinces (see Table 3).

Radio is a primary source for news and entertainment in urban areas, but it is less accessible in rural areas. Some 77 percent of women in urban and 36 percent in rural areas listen to a radio at least once a week (see Table 3). There are about one million radio sets in Zambia with an estimated 3.5 million listeners. The government is now extending radio coverage from 40 percent to 90 percent of the population by increasing the number of radio transmitters, but it is unclear when these transmitters will be

[4] The ZDHS 1992 provides only data on " highest level of education attended" and not on "highest level of education completed".
[5] Formal education consists of seven years in primary school and five years in secondary school (two years junior and three years senior)..

operational. Radio broadcasts are currently in English as well as in the seven major local languages: Bemba, Nyanja, Lozi, Tonga, Kaonde, Lundu, and Luvale (MIBS, 1994).

**Table 3. Percent Distribution of Zambian Women's Access to Mass Media, by Sociodemographic Characteristics**

| Demographic Characteristic | Read Newspaper Weekly | Watch Television Weekly | Listen to Radio Weekly |
|---|---|---|---|
| **Age** | | | |
| 15-19 | 43.0 | 27.4 | 56.4 |
| 20-24 | 44.3 | 21.1 | 60.2 |
| 25-29 | 43.9 | 22.4 | 60.9 |
| 30-34 | 45.2 | 20.7 | 56.7 |
| 35-39 | 42.9 | 20.7 | 56.7 |
| 40-44 | 32.3 | 12.9 | 46.5 |
| 45-49 | 21.7 | 4.8 | 38.4 |
| **Education** | | | |
| None | 1.9 | 3.6 | 27.5 |
| Primary | 37.5 | 16.1 | 55.0 |
| Secondary | 79.0 | 45.6 | 80.3 |
| Higher | 92.2 | 72.8 | 96.5 |
| **Residence** | | | |
| Urban | 59.2 | 38.5 | 76.7 |
| Rural | 23.3 | 3.5 | 35.6 |
| **Province** | | | |
| Central | 44.7 | 15.8 | 54.2 |
| Copperbelt | 59.1 | 39.6 | 75.1 |
| Eastern | 23.8 | 5.4 | 36.2 |
| Luapula | 32.9 | 5.9 | 38.2 |
| Lusaka | 62.9 | 41.2 | 81.7 |
| Northern | 26.7 | 3.0 | 33.4 |
| Northwestern | 30.8 | 8.2 | 49.9 |
| Southern | 23.6 | 9.6 | 41.7 |
| Western | 17.0 | 5.9 | 43.3 |
| ALL WOMEN | 41.8 | 21.5 | 56.8 |

SOURCE: ZDHS 1992.
NOTE: N=7,060

There are about 271,000 television sets in Zambia, most owned by people of higher socioeconomic status who live in urban areas; 18 percent of households in urban areas and 1 percent in rural areas own televisions. An estimated 900,000 adult Zambians (ages 15 and above) watch the one national television station "regularly"[6] (MIBS, 1994). In August 1995, pay-TV service was introduced to the Lusaka area. This service will feature programs from South Africa based stations MNET, BOP-TV, SuperSport, and

[6] The definition of "regularly" is not specified.

KTV (children's programming) channels, all rebroadcast via encoded microwave. There are plans for expanding the pay-TV service to the Copperbelt Province by the end of the year. Facilities for producing radio and television programs exist at the Zambia National Broadcasting Corporation, Zambia Information Services (ZIS), Multimedia Zambia, Zambia Institute for Mass Communication, and a number of privately owned video and film studios (Jabani, 1995).

Little information is available from the Ministry of Information on the use of cinema and video halls. Cinema vans, used extensively in the 1980s for development education and political propaganda, are no longer in general use. The vans have broken down, and their equipment has become outdated. Following changes in political leadership in the early 1990s, film projectors and films were retired indefinitely as most films featured the outgoing party. The ZIS plans to acquire six new video projector vans prior to the 1996 elections to encourage voter registration. Management of ZIS also has expressed interest in showing development education videos addressing family planning and other reproductive health issues (Jabani, 1995).

Virtually every township has an amateur community drama troupe coordinated by the Theatre and Arts Association (Jabani, 1995). Many have professional troupes with an interest in theater for development (MIBS, 1994). Folk media play an increasingly important role in information, education, and communication (IEC) activities. With support from United Nations Population Fund (UNFPA), United States Agency for International Development (USAID), and UNICEF, theater groups such as the Twatasha Theatre and the Ngoma Theatre in Lusaka and the Ntanda Theatre Troupe in Livingstone produced and performed several plays with reproductive health messages.

Zambia has two daily newspapers: *The Times of Zambia* (circulation 65,000) and *The Zambia Daily Mail* (40,000). Weekly newspapers are *The Sunday Times of Zambia* (78,000), *National Mirror* (40,000), *The Sun* (30,000), and *Crime News* (20,000). The *Weekly Post* is now called *The Post* and is published twice weekly. There are also bimonthly periodicals: *The National Mirror* (40,000), *Speak Out* (40,000), *The Sun, Crime News,* and *Voices of Women* (8,000). In addition, the ZIS produces monthly vernacular papers: *Tsopano* (15,000), *Intanda* (6,000), *Liseli* (7,700), *Lukanga News* (5,500), *Ngoma* (3,000), and *Imbila* (20,000). Monthly papers include the Catholic publication *Icengelo* (56,000), the *Mining Mirror* (50,000) (Europe World Year Book, 1994), *Profit* (2,000), and *Z Magazine* (15,000) (Jabani, 1995). Reading newspapers is more common in urban areas and among people with secondary and higher education (see Table 3) (Gaisie *et al.*, 1993).

# Chapter II
# Zambia's Population Policy and Programs

## Historical Background

Since Zambia's independence, government policies and programs have vacillated between opposition to and support of family planning (FP) activities. During the 1960s and 1970s, official policy was pro-natalist and opposed to contraception. Organized population programs and modern family planning devices were largely unavailable. Thus despite realtively high literacy levels, few copules used modern contraception.

In the Transitional Development Plan (1965-1966), the Government of the Republic of Zambia (GRZ) acknowledged that the population growth rate was high, but this was not perceived as a problem to be addressed by national development plans. This view continued during the First National Development Plan (1966-1970). The Second National Development Plan (1972-1976) considered population factors in greater detail using the newly available 1969 population census results. Again the projected increase in population was not considered problematic for the country's socioeconomic development. The Third National Development Plan (1979-1983) identified rural-to-urban migration as a problem.

As international copper prices plummeted and the national economy began to falter in the early 1980s, government policies and the people's perspective on population began to change. During 1983-1986, the World Bank Structural Adjustment Program replaced the National Development Plan as the blueprint for the nation's development. Although population issues did not figure prominently in this program, many leaders began to question whether the high growth rate was indeed healthy for the country (NCDP, 1993).

The turning point for population policy in Zambia was 1984, when a high-powered, pro-natalist delegation attended the United Nations Conference on Population and Development in Mexico. They returned with an antinatalist stance and spread the rationale for population policy, using health and human rights arguments rather than national socio-economic and demographic arguments to support new policy. This health and human rights approach helped to increase the acceptability of voluntary contraception among both the leaders of the GRZ and the general public (NCDP, 1993).

The government endorsed the Kilimanjaro Program of Action on Population to draft a population policy. The National Commission for Development Planning was to guide the process and was given the mandate to initiate a draft national population policy document. In the Interim National Development Plan (1987-1988), a strong recommendation was made that the government should plan, formulate, and adopt a

comprehensive population policy that would integrate population factors into socioeconomic development guidelines. The worsening economic situation and fast-growing population shifted Zambia's political climate away from pronatalist or *laissez-faire* attitudes toward more proactive policies to slow population growth (Goliber, 1989).

Zambia officially adopted its population policy in 1989 (Chipoma, 1990; NCDP, 1993). The Fourth National Development Plan (1989-1993) made a systematic attempt to address population and development issues, focusing on regulating the population growth rate (Chipoma, 1990; MOH, 1992). Policies and programs were designed to provide adequate family planning services and to influence people's fertility behavior. Subsequently, an Inter-agency Technical Committee on Population (ITCP) was established to take the lead in the design and development of a national population program for the effective implementation of the population policy. The ITCP membership was drawn from heads of population-related agencies in the country. Among other activities, this ITCP developed a national population information, education, and communication (IEC) program in 1994.

Today, Zambia's Social Policy Framework (1993-1995) reaffirms that family planning programs form the core of a national population policy. The goal is to reduce the population growth rate through providing IEC on relationships between family size and material well-being (NCDP, 1993). IEC is now recognized as a crucial element in the country's plans to meet its population goals.

## Population Policy Objectives and Strategies

In an address to the nation on World Population Day in 1995, President Chiluba noted that "the negative impact of past increases in size and growth rate of our population on the Government's ability to maintain, not to mention improve upon, the existing living standard and quality of life of our people is self-evident." He further stated that while the GRZ does "acknowledge, and will continue to promote, the fundamental right of every Zambian to decide freely and responsibly the number and spacing of children, [w]e shall also encourage our people to consider the negative and other implications for our children and their mothers of very early childbearing, of too closely spaced births, and of having too many children."

To improve the living standards and quality of life for all Zambians, the government established the 1989 Population Policy with the following goals:

- To initiate, improve, and sustain measures to curtail the nation's high population growth rate and stem rural to urban migration;

- To promote health and welfare and prevent premature death and illness, especially among high risk women and children;
- To integrate population factors into the nation's development planning;
- To ensure that all couples and individuals have the information, education, and means to decide freely and responsibly the number and spacing of their children;
- To regulate migration from rural to urban regions; and
- To expand and maintain the nation's population database (Chipoma, 1990; Gaisie *et al*., 1993).

Specific population objectives are:

- To reduce the population growth rate from 3.7 percent to 3.4 percent by the year 2000 and to 2.5 percent by 2015;
- To reduce the total fertility rate to 6 by 2000 and to 4 by 2015;
- To reduce infant mortality from 97 per 1,000 live births to 65 by 2000 and to 50 by 2015; and
- To provide family planning services to at least 30 percent of all adults in need of them by 2000 (Gaisie *et al*., 1993; Mutambo, 1989).[7,8]

Strategies for achieving these objectives include:

- Providing maternal and child health care, as well as family planning services, to reduce infant, child, and maternal morbidity and mortality;
- Providing information, education, and communication on the advantages of small family size for the individual as well as for the nation;
- Improving women's status;

[7] The authors do not specify the term "adults." The Health Education Unit of the Ministry of Health defines adults as people 15 years and older (MIBS, 1994).\

[8] For more information on "unmet need", see Chapter IV.

- Addressing issues relevant to youth and children; and

- Evaluation, monitoring, research, and training (Gaisie *et al.*, 1993; Mutambo, 1989).

According to a Contraceptive Needs Assessment conducted by the Ministry of Health in May 1995, there is a widespread lack of awareness of existing policies. Clinic-based providers, for example, often expressed surprise at learning that spousal or parental consent was no longer required before clients could receive contraceptive services. One of the most important factors contributing to this lack of awareness is the lack of communication among levels of the formal health sector (MOH, 1995).

## Health Reform Process

Over the last decade, total government health expenditures in Zambia have increased from 6 percent to 13 percent of its budget (World Bank Report, 1994). In comparison, some African countries with lower gross national product (GNP) per capita have achieved lower infant mortality rates (see Table 4). To improve provision of health services for all, the Ministry of Health (MOH) reallocated scanty resources to the following priority areas: management and accountability, community participation, public/private partnerships, and human resource development. In late 1991 the government introduced the Reformed Health Care System to decentralize health services as part of its National Health Policy (World Bank Report, 1994).

**Table 4. Comparative Expenditures on Health and Health Performance**

| Country | GNP/Capita (in US$) | Infant Mortality Rate[a] | Life Expectancy (years) | Malnutrition[b] | Total Fertility Rate[c] |
|---|---|---|---|---|---|
| Zambia | 420 | 113 | 56 | 25 | 6.5 |
| Kenya | 340 | 51 | 59 | 18 | 5.4 |
| Benin | 380 | 88 | 46 | 35 | 6.3 |
| Togo | 410 | 86 | 55 | 24 | 6.4 |

SOURCE: World Bank Report 1994.

NOTES: a: The number of infant deaths in a given year per 1,000 children born.
b: Measured by weight for age.
c: The average number of live births per year per 1,000 women of reproductive age.

District and health center staff play a key role in the decentralization process now underway. Under the Reformed Health Care System, 18 percent of the MOH budget is now directly allocated as grants to the District Health Management Boards (DHMBs). These Boards are in charge of all health activities in their service areas. The MOH authorizes DHMBs to use their grants to plan and implement interventions addressing the most pressing health needs in their district. DHMB members require training in areas such as management and IEC skills to prepare them for these new responsibilities (World Bank Report, 1994).

The structure of donor support for the health reform process differs significantly from previous models of foreign assistance. Some donors have agreed to provide recurrent cost support to a central fund from which money is disbursed to the districts. The districts, therefore, may not necessarily know the specific source of their funding. District grants are weighted by relative population densities; areas with fewer than 10 people per square kilometer receive proportionately more *per capita* than those in which the population density is greater than 150 people per square kilometer. Poverty indicators also are being used to adjust the MOH allocations to each district.

To date, the following donor agencies have pledged to provide support to the health reform process: British Overseas Development Agency (ODA), Danish International Development Agency (DANIDA), European Community, the Dutch Government, the Swedish International Development Authority, UNFPA, UNICEF, World Health Organization (WHO), and the World Bank (World Bank Report, 1994).

As of 1995, all health promotion programs are required to coordinate closely with the Health Reforms Initiative Team (HRIT) to assure that projects are integrated with the reforms initiative. This will help maintain the decentralized model of health care delivery and prevent a regression to the former, more vertical development structure.

## Some Problems

Although the Health Reforms Initiative is generally regarded within the donor community as very successful, it is not without problems. Under the Health Reforms Initiative guidelines, all plans and programs must be initiated at the district level rather than at the national or provincial level. This has resulted in confusion, particularly in the provinces. The Provincial Medical Officers (PMOs) are still expected to "coordinate" district activities, yet their authority and responsibilities are unclear. Early in 1995, the HRIT attempted to address this problem by incorporating the PMOs in a more meaningful manner.

Confusion also arose at national and district levels. Managers of national programs found it challenging to adapt to the role of the District Health Management Boards (DHMBs). At the same time, district level managers were not fully aware of assistance available from national and international sources.

## Draft National Family Planning Program

During the period 1990-1992 the government began to develop a formal national family planning program. A draft version of "Family Planning Policy Guidelines and Standards" was released in July 1992 (MOH, 1992). This document focused primarily

on fertility regulation and did not address other reproductive health issues. The government requested and received assistance from the Population Council to revise the draft. As of August 1995, it was still undergoing review and revision.

Under the Reformed Health Care System, the districts will receive funds for integrated care instead of funds for vertical programs. Family health, including maternal and child health (MCH) and family planning are the major MOH priorities. Therefore, some donors expect that more resources will be allocated to these activities (World Bank Report, 1994). Ultimately, however, DHMBs are to decide how to allocate their funds. Rapid IEC Assessment in 11 of 62 districts revealed that family planning is actually the fourth or fifth priority of most of the 11 DHMBs.

## Early Family Planning Activities and Initial Opposition

During the early 1960s modern family planning services were offered only in a few hospitals situated in the most highly urbanized areas of the country. In 1969 the MOH established its first MCH Unit, with family planning services integrated into its range of services. The MCH/FP Unit later expanded this range of services to all clinics in the country (MOH, 1989). In support of family planning, the Family Planning and Welfare Association of Zambia (FPWAZ) was founded in March 1972. This organization changed its name to the Planned Parenthood Association of Zambia (PPAZ) in 1979 (Mutambo, 1990) and has since worked closely with the MOH, often providing family planning services in MOH clinics.

There was considerable opposition to family planning programs initially. Nurses were harassed when providing family planning services without the consent of clients' spouses, and family planning literature and contraceptives were confiscated and burned. Throughout the 1970s the United National Independence Party Women's League campaigned actively against family planning programs. In 1980 the Family Life Movement of Zambia (FLMZ) was formed to promote natural family planning (NFP) and to discourage modern contraceptive use. The national FLMZ policy has since changed its position. It now promotes informed choice and, therefore, neither encourages nor discourages use of modern contraceptives (Jabani, 1995).

The Pro-Life Society of Zambia, part of a global network associated with Human Life International, was established in Zambia in 1986. The Society opposes abortion and contraceptive use. Initially, the organization gained considerable support. In the late

1980s it publicly opposed PPAZ's activities (Mutambo, 1990). When the GRZ began to promote modern family planning contraceptive use, the Society ceased to attract a significant following. As of 1995, there is no evidence that it is still active, nor is there any apparent public opposition to contraception.

The National Population Policy emphasizes voluntary acceptance of family planning methods in accordance with fundamental human rights. Several religious groups support opposing views, however. The Roman Catholic Church opposes modern contraceptives and induced abortion. The Church promotes NFP methods, however, based on fertility awareness and periodic abstinence.

## Assistance Organizations

Zambian population activities continue to be donor-driven. USAID, UNFPA, WHO, International Labor Organization (ILO), UNICEF, United Nations Educational, Scientific, and Cultural Organization (UNESCO), United Nations Development Programs (UNDP), the John D. and Catherine T. MacArthur Foundation, the Swedish International Development Agency (SIDA), British Overseas Development Administration (ODA), and Norwegian Overseas AIDS Development (NORAD) have been donor partners with Zambia for quite some time. UNFPA, however, has provided the greatest and most extensive assistance. In addition, numerous other organizations assist in implementing family planning activities in collaboration with the GRZ. Organizations providing technical assistance for USAID projects include JHU/CCP/PCS, Pathfinder, John Snow International (JSI), Population Services International (PSI), and Population Council. In addition, at least 25 international nongovernmental organizations (NGOs) such as CARE, International Planned Parenthood Federation (IPPF), Family Planning International Assistance (FPIA), and the International Federation for Family Life Promotion (IFFLP) support population programs. Zambian NGOs specifically addressing population issues include PPAZ, Family Life Movement of Zambia, Pharmaceutical Society of Zambia (PSZ), Makeni Ecumenical Center, Kabwe Dorcas Family Planning Programme, the Seventh Day Adventist Church, the Environment and Population Centre, Anti-AIDS Project, and the Zambia Environment Education Programme.

## Inter-agency Technical Committee on Population IEC Sub-Committee

Coordinating the great number of agencies and forms of international assistance is now an important challenge for the Government of the Republic of Zambia (GRZ). The government established the Inter-agency Technical Committee on Population (ITCP) to coordinate population activities (Chipoma, 1990). Its total estimated budget for the six-year program period (1994-2000) is US $11,350,000 (MIBS, 1994).

The IEC Sub-Committee, under chairmanship of the Zambia Information Services Director, coordinates the planning, implementation, and evaluation of population IEC programs. Twelve ministries and organizations are members of the IEC Sub-Committee:

- Population Communication Unit, Ministry of Information and Broadcasting Services;
- Family Welfare Unit, Ministry of Labor and Social Security;
- Family Health Unit, Ministry of Health;
- Health Education Unit, Ministry of Health;
- Population Education Unit, Ministry of Education;
- National Agriculture Information Services, Ministry of Agriculture, Food, and Fisheries;
- Department of Extension Services, Ministry of Agriculture, Food, and Fisheries;
- Women in Development Department, National Commission for Development Planning;
- Environment and Population Centre;
- Family Life Movement of Zambia;
- Planned Parenthood Association of Zambia; and
- Ministry of Community Development and Social Services (MIBS 1994).

The IEC Sub-Committee is empowered to appoint or enlist any other specialized IEC-related institutions or persons as appropriate. It is planned that a representative of

communication training institutions will be added to the list (MBIS, 1994). The IEC Sub-Committee's mandates are as follows:

- To coordinate all program activities relating to population IEC.
- To regulate, review, and monitor all IEC program activities and provide relevant technical advice to ITCP.
- To identify IEC program activities geared to achieving the objectives of the National Population IEC Program.
- To plan and coordinate provision of training programs for more effective program implementation.
- To identify potential human, material, and financial resources and utilize them effectively (MIBS, 1994).

# Chapter III
# Reproductive Health Issues

The Ministry of Health (MOH) recognizes reproductive health as a high-priority issue to be addressed in its health services development. The program approach to reproductive health for women is based on the reproductive maturation sequence: conception, pregnancy, childbirth, infancy, adolescence, and adulthood (Likwa, 1993). (Chapters III and IV detail several aspects of reproductive health in Zambia: maternal and child health care, abortion, fertility issues, contraceptive practices, and family planning services.)

## Maternal and Child Health

There are many characteristics that serve as important indicators of maternal and child health and mortality discussed in the literature. It is important to recognize that minimizing complications during gestation and delivery by means of practices such as antenatal care services, proper care during delivery, child spacing, and limiting births has a significant and positive effect on outcome for both mothers and babies.

Key factors that affect the health of mothers and their children are considered here in two groups:

- Factors that depend on access to and use of health-care service, including antenatal care, antenatal tetanus vaccination, place of delivery, and assistance during delivery;

- Factors that do not result solely from access to and use of health-care services including nutritional status of women, breast-feeding practices, and intervals between births.

### Factors Dependent on Health-Care Service Access and Use

***Antenatal care.*** Ninety-four percent of pregnant women received some antenatal care (ANC), according to Gaisie's 1993 report. Antenatal visits were much fewer, however, and started later in gestation than WHO recommends. Although the first ANC visit should take place before the third month of pregnancy, the median gestational stage at first antenatal visit in the study was 5.6 months. More than one-third (36 percent) of women came for their first ANC visit when they had been pregnant for more than five months.

In 69 percent of the births recorded in the study, the mothers had made four or more antenatal visits. This indicates that women were aware of the importance of regular

care. Of all pregnant women, however, 20 percent made fewer than four visits and 6.3 percent did not have any ANC at all. In addition, the median number of visits was five, although the WHO recommendation is 12 (Gaisie *et al.*, 1993).

Nine pregnant women in 10 received ANC from a doctor, trained nurse, or midwife. ANC coverage varies by province and by urban *versus* rural location, however. Some 21.3 percent in Northern Province, 10.8 percent in Central Province, and 10 percent in Luapula and Western Provinces received no ANC. About 1.8 percent of urban and 10.2 percent of rural women received no ANC (Gaisie *et al.*, 1993).

Educational level and receipt of ANC from a physician were found to be closely associated. Only 2 percent of women with no education received ANC from a doctor, compared with 20 percent of women with more than secondary education. However, there was little variation in the level of education among women who received ANC from a trained nurse/midwife. About 80 percent of women with no education or more than secondary education and about 90 percent of those with primary or secondary education obtained ANC from a nurse/midwife (Gaisie *et al.*, 1993).

***Antenatal tetanus vaccination.*** Some 39 percent of women sought the protection of two or more doses of tetanus toxoid during gestation; 42 percent received only one dose and 19 percent received none. These percentages are low, considering that 89 percent of pregnant women had two or more ANC visits. In the Northern Province, 38 percent of women who gave birth received no antenatal tetanus vaccination, although 75 percent claimed to have received ANC from a trained nurse/midwife (Gaisie *et al.*, 1993).

As the level of education among women rose, so did their full vaccination status. Only 30 percent of women with no formal education were fully vaccinated, while 58 percent of women with more than secondary education had received both doses of tetanus toxoid (Gaisie *et al.*, 1993).

***Place of delivery.*** A strong relationship between formal education of mothers and place of delivery was found. Almost one-half of the births (48.7 percent) occurred at home. The proportion of deliveries in a health facility increased steadily from 22 percent among women with no formal education to 96 percent among those with higher than secondary education. In urban areas, eight of 10 women were delivered in health facilities, compared with 26 percent for women in rural areas (Gaisie *et al.*, 1993). Women who had received ANC were more likely to give birth in clinics or hospitals than those who did not. Of those who went to health facilities four or more times for ANC, 61 percent delivered in health facilities. Only 3 percent of those who never received ANC were delivered in health facilities.

The 1992 ZDHS reported variations among women of different educational levels in their maternal and child health behaviors. There may be a systematic relationship between levels of education and availability of these services based on urban/rural location. Thus it is important to note that, although there are more people of low educational levels and fewer health services in the rural areas, it is not evident which of these factors is responsible for health behaviors. Place of delivery and other factors may be influenced both by access to health care and by other issues such as educational level. The level of analysis required to confirm or refute these relationships is beyond the scope of this paper.

***Assistance during delivery.*** Women giving birth in health facilities were more likely to be delivered by trained medical personnel (Gaisie *et al.*, 1993). Overall, there was considerable variation between provinces in attendance by medical personnel. Copperbelt and Lusaka Provinces had much higher proportions of births attended by trained medical personnel—80 percent and 76 percent, respectively—compared with the other provinces (Gaisie *et al.*, 1993).

Northwestern Province had a distinctly higher proportion (27 percent)[9] of births attended by traditional birth attendants (TBAs) than other provinces, in which TBAs attended about 10 percent or fewer. Relatives or other persons not classified as TBAs attended in at least 40 percent of births in six of the nine provinces (Central, 40 percent; Eastern, 42 percent; Luapula, 44 percent; Northern, 61 percent; Southern, 45 percent; and Western, 57 percent). Some 10 percent of women in rural areas were delivered with no one attending, compared with 4 percent in urban areas (Gaisie *et al.*, 1993).

### Factors Not Solely Dependent on Health-Care Service Access and Use

***Nutritional status of women.*** Poor nutritional status of women has a negative effect on pregnancy outcomes. Women's nutritional status is not so significant a contributing factor to maternal morbidity and mortality in Zambia as it is in other African countries, however. Only 1.5 percent and 10.3 percent of women in Zambia are below the adequate height and body mass index (BMI)[10] levels, respectively (Gaisie *et al.*, 1993). Although the mean BMI is 22.5—well above the high-risk point of 18.5—more than 18.5 percent of the women had a borderline BMI of 18.5 to 19.0.

It is important to note that certain provinces and socioeconomic groups have higher proportions of women at risk of poor nutrition. In Western Province, 20 percent of

[9] It is unclear whether TBAs in this province are trained, supervised, and supported in Primary Health Care and social mobilization.

[10] BMI: body mass indices, also referred to as the Quetelet index, is defined as weight in kilograms divided by the square of the height in meters (Gaisie *et al.*, 1993).

women fall below the adequate BMI level. In addition, Kwofie's survey on nutritional status of pregnant women in Zambia showed a widespread prevalence of serious protein deficiency. Malnutrition and fetal deaths are highly concentrated among subsistence farmers living in dispersed rural communities (Kwofie *et al.*, 1983).

***Breastfeeding practices.*** Breastfeeding is nearly universal in Zambia. Most babies start on the day of birth and continue for at least a year. Some 87 percent of infants were breast-fed within 24 hours of birth. Overall, about 40 percent of infants were breastfed within an hour of birth. This percentage was highest in Northwestern Province (62 percent) and lowest in Western Province (25 percent). The median period of breastfeeding was 19 months. Children in Northwestern Province were breastfed for an average of 22 months, and those in Western Province for 23 months. About one-fourth of two-year-olds received breastmilk combined with supplements (Gaisie *et al.*, 1993). These are positive influences on a child's nutritional status.

They are tempered, however, by the fact that *exclusive* breast-feeding is uncommon. In Gaisie's study, only 16 percent of infants under two months of age were fed only breast-milk. Some 68 percent of infants under two months of age were fully breastfed *and* given water (Gaisie *et al.*, 1993). Where the water is contaminated, this poses additional health risks.

In general, rural children were slightly more likely than urban children to be breastfed within the first hour or first day of birth. Babies born at home or delivered by non-medically trained attendants were more likely to be breastfed sooner after delivery than those born at health facilities. Bottlefeeding was rare: only 3 percent of babies 0 to 3 months old were bottlefed in addition to being breastfed (Gaisie *et al.*, 1993).

***Birth intervals.*** The number of births and the intervals between them strongly influence the impact of a pregnancy and birth on a woman's health. In addition, children born too soon after a previous birth have a higher risk of death. The risk to both mother and child is particularly high when the birth interval is less than 24 months (Gaisie *et al.*, 1993). Overall, almost one in five births in Zambia occurs less than 24 months after the previous birth. There are important sub-groups at high risk, particularly young mothers. About 40 percent of mothers ages 15 to 19 had birth intervals of less than 24 months. Another sub-group at risk is women whose previous babies have died. The ZDHS data indicated that about 40 percent of women whose babies died became pregnant again in less than 24 months (Gaisie *et al.*, 1993).

The 1992 ZDHS data indicated that provinces that did not score well in other reproductive health issues had a high median number of months since previous birth. In Western Province this was 35.9 months, in Northwestern Province it was

32.4 months, and in Eastern Province it was 31.8 months (Gaisie *et al.*, 1993).

## Infant and Child Mortality

Zambia is one of the few countries in the world where child mortality rates have increased considerably during the past 15 years, contrary to the trend worldwide. From the period 1977-1981 to 1987-1991, mortality among children under five years of age increased 15 percent from 152 to 191 per 1,000 live births.[11] Infant mortality increased from 80 to 107.2[12] per 1,000 live births according to 1980 census estimates. Neonatal and post-neonatal mortality increased by 35 percent in the 15-year period before the 1992 ZDHS data were collected (see Table 5) (Gaisie *et al.*, 1993).

**Table 5. Infant and Child Mortality Rates, by Five-Year Periods Preceding 1992 ZDHS**

| Years Preceding Survey | Neonatal Mortality[a] | Post-neonatal Mortality[b] | Infant Mortality[c] | Child Mortality[d] | Under-five Mortality[e] |
|---|---|---|---|---|---|
| 0-4 | 42.5 | 64.7 | 107.2 | 93.6 | 190.7 |
| 5-9 | 37.1 | 50.5 | 87.6 | 81.7 | 162.2 |
| 10-14 | 31.6 | 47.9 | 79.8 | 78.8 | 151.9 |

SOURCE: ZDHS 1992.
NOTES: a. The probability of dying within the first month of life.
b. Postneonatal mortality: the difference between infant and neonatal mortality.
c. The probability of dying before the first birthday.
d. The probability of dying between the first and fifth birthday.
e. The probability of dying between birth and fifth birthday.

One in 13 infants in urban areas and one in nine infants in rural areas died before their first birthdays, according to 1992 data. Children in rural areas had a 33 percent greater risk of dying before their fifth birthday than urban children. The highest childhood mortality rates were in the Northern and Luapula Provinces. In these areas, almost 25 percent of children died before the age of five (see Table 6) (Gaisie *et al.*, 1993).

Childhood mortality rates are also highly correlated with the level of mothers' education and maternal care during pregnancy and delivery. Infants and children stand a greater chance of dying if they are: born to mothers who are younger than 18 years or older than 34 years at the time of delivery; born less than 24 months after the previous child; or born to mothers who had previously given birth to three or more children (see Table 7) (Gaisie *et al.*, 1993).

[11] In 1989 the Child Mortality Rate in Europe was estimated to be 5 per 1,000 live births (Mbacke *et al.*, 1990).

[12] In 1989 the Infant Mortality Rate was estimated to be 10 per 1,000 live births in North America, 12 per 1,000 in Europe, and 55 per 1,000 in Latin America (Mbacke *et al.*, 1990).

**Table 6. Infant and Child Mortality Rates in Zambia, by Sociodemographic Characteristics**

| Sociodemographic Characteristic | Neonatal Mortality | Post-neonatal Mortality | Infant Mortality | Child Mortality | Under-five Mortality |
|---|---|---|---|---|---|
| **Residence** | | | | | |
| Urban | 31.7 | 46.3 | 78.0 | 78.9 | 150.8 |
| Rural | 47.3 | 68.5 | 115.8 | 96.6 | 201.2 |
| **Provinces** | | | | | |
| Copperbelt | 22.3 | 46.6 | 68.9 | 80.8 | 144.2 |
| Eastern, Central | 50.6 | 63.5 | 114.1 | 108.2 | 210.0 |
| Lusaka | 32.0 | 44.7 | 76.8 | 69.3 | 140.8 |
| Luapula, | 55.1 | 93.4 | 148.5 | 112.6 | 244.4 |
| Northern | 33.7 | 36.8 | 70.5 | 68.5 | 134.2 |
| Southern | 59.9 | 72.1 | 132.0 | 90.2 | 210.3 |
| Northwestern, Western | | | | | |
| **Education** | 46.7 | 68.1 | 114.9 | 101.2 | 204.4 |
| No formal | 39.5 | 59.2 | 98.7 | 92.1 | 181.7 |
| education | 35.0 | 44.3 | 79.4 | 60.2 | 134.8 |
| Primary | | | | | |
| Secondary+ | | | | | |
| **Antenatal (A)** | (79.9)[b] | (108.9) | (188.8) | c | (299.5) |
| **and Delivery** | 41.8 | 62.3 | 104.1 | 88.9 | 183.7 |
| **(D) Care** | 38.2 | 63.1 | 101.3 | 83.0 | 175.8 |
| No A or D | | | | | |
| Either A or D | | | | | |
| Both A and D | | | | | |
| NATIONAL | 40.0 | 58.2 | 98.2 | 88.1 | 177.6 |

SOURCE: ZDHS 1992.

NOTES: a. Rates for the five-year period before survey. Care provided by a doctor, nurse, trained midwife, or received in a hospital, clinic, or health center (Gaisie *et al*., 1993).
b. Rates based on 250-499 cases (exposed children) appear in parentheses.
c. Rates based on fewer than 250 cases are suppressed.

Some 63 percent of children were at an elevated risk of mortality because of their mothers' fertility behavior: 43 percent of births fell into a single high-risk category and 19 percent were in more than one high-risk category. Specifically:

- Almost one-half (47 percent) were at risk because their mothers had previously given birth to three or more children;
- 15 percent of the babies had an elevated risk because they were born less than 24 months after the previous birth;
- 13 percent were at risk because their mothers were older than 34; and
- 10 percent were at risk because their mothers were younger than 18 at the time of delivery (see Table 7) (Gaisie *et al*., 1993).

**Table 7. Infant and Child Mortality Rates for the Ten-Year Period Preceding 1992 ZDHS, by Sociodemographic Characteristics**

| Sociodemographic Characteristic | Neonatal Mortality | Post-neonatal Mortality | Infant Mortality | Child Mortality | Under-five Mortality |
|---|---|---|---|---|---|
| **Gender of child** | | | | | |
| Male | 46.3 | 59.9 | 106.2 | 91.3 | 187.8 |
| Female | 33.9 | 56.5 | 90.3 | 85.1 | 167.8 |
| **Age of mother** | | | | | |
| below 20 | 53.3 | 69.8 | 123.2 | 110.1 | 219.7 |
| 20-29 | 36.0 | 56.4 | 92.4 | 85.0 | 169.5 |
| 30-39 | 34.4 | 52.7 | 87.1 | 76.2 | 156.6 |
| 40-49 | 53.8 | 47.7 | 101.5 | 79.8 | 173.2 |
| **Birth order** | | | | | |
| 1 | 50.8 | 70.8 | 121.5 | 104.6 | 213.4 |
| 2-3 | 35.2 | 60.9 | 96.2 | 92.6 | 179.8 |
| 4-6 | 35.3 | 50.7 | 86.0 | 74.8 | 154.4 |
| 7 and more | 42.6 | 51.3 | 93.9 | 84.9 | 170.8 |
| **Interval from previous birth** | 70.0 | 85.8 | 155.8 | 104.5 | 244.0 |
| Less than 2 years | 28.3 | 48.2 | 76.5 | 80.1 | 150.5 |
| 2-3 | 20.1 | 36.0 | 56.1 | 69.5 | 121.7 |
| 4 years or more | | | | | |
| **Size at birth**[a] | * | * | * | * | * |
| Very small[b] | 122.2 | (78.3)[c] | (200.5)[c] | (131.6)[c] | 305.8 |
| Smaller than average | 28.4 | 64.1 | 92.4 | 84.4 | 169.0 |
| Average or larger | | | | | |

SOURCE: ZDHS 1992.

NOTES: a. Rates for the five-year period preceding the survey.
b. Rates based on fewer than 250 cases are suppressed.
c. Rates based on 250-499 cases (exposed children) are enclosed in parentheses.

## HIV/AIDS and Mortality Among Children Under Five Years Old

Zambia has been extremely hard hit by HIV/AIDS. HIV prevalence is estimated to be between 14 and 16 percent of the adult population. It is estimated that 400 to 500 people are newly infected by HIV each day. In 1993 alone, it is estimated that between 40,000 and 50,000 people died of AIDS-related causes in Zambia. Because of perinatal transmission, 30 percent of these were children. The number of annual AIDS-related deaths is likely to double by 1997 (Fylkesnes *et al.*, 1994).

Though the AIDS epidemic has probably played the major role in the increase in infant and child mortality, other factors, such as malnutrition, lack of access to clean water, lack of family planning services, and the combination of large families and short birth intervals between children, also contribute significantly to this alarming trend. HIV prevalence is 27 percent in urban areas compared with 10 percent in rural areas

(Fylkesnes *et al*., 1994), yet children in rural areas experience 33 percent higher risk of dying before their fifth birthday than urban children (Gaisie *et al*., 1993).

## Maternal Mortality

Zambia's maternal mortality ratio (MMR)[13] is estimated to be 202 deaths per 100,000 live births (GRZ, 1993). There are strong regional differences, and in several parts of the country the maternal mortality ratio is much higher. For the period 1983-1987 the WHO Factbook on Maternal Mortality reports an institutional maternal mortality ratio of 272 for Mansa District, 294 for Kawamba District, 334 for Luapula Province, 461 for Nchelenge District, and 577 for Samfya District (WHO, 1992). A 1992-1993 community study in Mongu District (Western Province) estimated the maternal mortality ratio at 889 maternal deaths per 100,000 live births (Kafuna *et al*., 1993). In comparison, a 1982-1983 study conducted at the University Teaching Hospital (UTH) in Lusaka estimated the maternal mortality ratio to be 118 per 100,000 live births (Mhango *et al*., 1986).

Data from Zambian hospitals showed an increase in hospital admissions caused by childbearing complications (Sikazwe, 1989). During the period 1985-1988, pregnancy-related complications were the third highest reason for hospital admissions among people of both sexes over 15 years of age. Since 1990, pregnancy-related complications have been second only to malaria as causes of hospital admissions (Nsemukila, 1994).

In general, maternal mortality in Zambia is five times higher for women ages 35 and older than for younger women. It is twice as high among women with parity greater than four (Nsemukila, 1994) as among women with fewer children. Young women ages 17 or younger are at a higher risk of maternal mortality than older women (Likwa, 1994b). Likwa refers to an MOH report from 1988 indicating that preeclampsia/eclampsia, abortion, anemia, and parasite infection accounted for 70 percent of maternal deaths during the antenatal period. Puerperal sepsis, postpartum hemorrhage, pre-eclampsia/eclampsia, and ruptured uterus accounted for 82 percent of maternal deaths during the postpartum period (Likwa, 1989).

A contributing factor to the high MMR is lack of access to and poor utilization of antenatal and postnatal care (Nsemukila, 1994). Low utilization of maternal health services often results from:

[13] MMR is measured in two ways: maternal mortality *rate* and maternal mortality *ratio*. Maternal mortality *rate* is defined as the number of pregnancy-related deaths per 100,000 women of reproductive age in a given year. Maternal mortality *ratio* is defined as the number of maternal deaths per 100,000 live births. The ratio measures the risk of death experienced by expecting mothers within the same population. Ratio is also useful for comparing mortality risks related to pregnancy among female populations with different levels of fertility (Boerma, 1987).

- *Lack of decision-making power* by women in need of reproductive health care (other persons such as a woman's husband, brother, or mother-in-law decide whether or not to seek professional care for her);
- *Delayed decision* to seek care because of distance, transportation, illness factors, cost, quality of care, position of woman in the community, socioeconomic factors, and educational status of woman;

- *Delayed arrival* at a health center caused by distance, transportation, weak community organization, or death en route;

- *Delayed provision* of adequate care caused by poor quality of care, low staff morale, or understaffed or underequipped facilities (Likwa, 1994a).

The MOH recognizes that maternal mortality is a serious threat to women, surviving children, families, and communities. In 1987 Zambia pledged support with 44 other countries for the Safe Motherhood Initiative, which strives to strengthen family planning activities. This initiative, however, operates within selected health centers in only four provinces of Zambia: Lusaka, Southern, Central, and Western (Likwa, 1994a).

## Adolescent Sexual Practices

Although Zambian girls today marry at older ages than did those of previous generations, many are sexually active before marriage. Traditional social institutions that constrained sexual behavior in the past have become largely ineffective (Likwa, 1994b; Meekers, 1994). Sexually active adolescents face high risk of pregnancy because they rarely use contraceptives (Gaisie *et al*., 1993). Contraceptive prevalence among women ages 15 to 19 is the lowest among women of reproductive age (see Table 8).

Sexual activity is relatively common among Zambian young people. A survey among 516 female urban high school students ages 13 to 20 in the Provinces of Lusaka, Central, and Copperbelt found that 31 percent of 17-year-old girls were sexually active. Overall, 71 percent had boyfriends and 67 percent had steady or close relationships. One-third of those ages 13 to 16 and about one-fourth of those ages 17 to 20 reported intercourse more than "very rarely." These trends are similar to results of a survey among second-ary school girls in Nairobi, Kenya, where 23.8 percent reported sexual activity. In a Nigerian study, sexual activity was reported to be 28 percent (Pillai *et al*., 1993).

A study conducted in 1990 in Lusaka and Copperbelt Provinces among 503 female secondary students ages 13 to 21 found that one-half (49 percent) reported "kissing, fondling, and intercourse" *at some time* during the previous two months. Some 40

percent reported "kissing, fondling, and intercourse" *very often* or *often*. Although 64.4 percent said they had heard of modern contraceptives, only 4.2 percent reported ever using them. Seven young women said they had become pregnant and three had given birth (Palka, 1992).

The PSI survey on condom use showed that about 78 percent of male youths ages 13 to 18 reported having had sexual intercourse at least once. For girls in the same age group, condom use was much lower at 59 percent (PSI, 1993).

**Table 8. Percent of Ever Use and Current Use of Contraceptives, by Age**

| | Ever Use | | | Current Use | | |
|---|---|---|---|---|---|---|
| Age group | Any Method | Any Modern Method | Any Traditional Method | Any Method | Any Modern Method | Any Traditional Method |
| 15-19 | 12.9 | 7.3 | 8.4 | 3.5 | 1.5 | 2.0 |
| 20-24 | 41.6 | 24.1 | 28.7 | 11.2 | 7.1 | 4.1 |
| 25-29 | 53.5 | 32.3 | 35.8 | 15.0 | 9.0 | 6.0 |
| 30-34 | 55.2 | 31.7 | 38.4 | 17.5 | 10.7 | 6.8 |
| 35-39 | 58.9 | 36.0 | 39.8 | 20.6 | 12.7 | 7.9 |
| 40-44 | 52.1 | 27.3 | 36.7 | 15.7 | 10.1 | 5.6 |
| 45-49 | 47.1 | 20.9 | 36.9 | 9.4 | 6.4 | 3.0 |
| ALL WOMEN | 39.9 | 22.9 | 27.5 | 11.6 | 7.0 | 4.6 |

SOURCE: ZDHS 1992.
NOTE: N=7,060

There are significant differences in the sexual behavior of in-school youth and that of their out-of-school peers (PSI, 1993). More out-of-school than in-school young people report sexual activity (see Table 9).

**Table 9. Percent of Young Adults, Ages 13-18, Who Are Sexually Active, by Gender and School Status[a]**

| School Status | Female | Male |
|---|---|---|
| In School | 46 | 73 |
| Out of School | 82 | 88 |
| ALL YOUNG ADULTS | 59 | 79 |

SOURCE: PSI 1993.
NOTES: Females n=371; males n=353
a. Having sexual intercourse at least once (self-reported).

About a quarter of a million children in Zambia between ages 7 and 14 do not attend school. Of those who enter school, about 100,000 fail to complete grade seven each year. In rural areas, some 15,000 leave school at grade four each year (Ministry of Information and Broadcasting Services, 1994).

## Adolescent Pregnancies

By age 17, one-third of adolescent Zambian girls have become pregnant (Gaisie *et al.*, 1993). Pregnancy at a young age causes substantial risks to the health of both mother and child. Death rates from both deliveries and abortions are especially high among women younger than age 18 (Likwa, 1989). Miscarriages were reported at 10 percent among those ages 15 to 19. Young girls who become pregnant also face an increased risk of hemorrhage, cephalopelvic disproportion,[14] infections, vesica vaginal fistula,[15] premature labor, low birth weight babies, and subsequent increased fertility (Pillai *et al.*, 1993). No information is available on complications during pregnancy and/or childbirth among girls younger than 15 years.

Pregnancy during the school years has far-reaching social consequences for girls. According to 1988 data, one out of seven Zambian girls attending school had her first pregnancy while in school (Lucas, 1992). School managers generally expel pregnant girls, thus destroying the girls' chances for further education and other aspirations. While most parents encourage their pregnant daughters to carry the pregnancies to term (Likwa and Whitaker, 1994), many young women resort to unsafe abortion to save any future prospects.

A qualitative study conducted in Lusaka in 1987 of 80 pregnant, unwed[16] young women revealed that only 6 percent of them desired a child at that time. At the time of their pregnancies, 68 percent were in school; 29 percent dropped out of school before the end of the pregnancy.

The most common motives cited for becoming pregnant were:

- Seeking economic support from boyfriend (85 percent),
- Being "in love" and hoping for marriage in the near future (67 percent),
- Peer pressure (54 percent),
- Testing of fertility, identification with the mother role (26 percent), and
- Pleasure and experimentation (15 percent) (Peltzer and Likwa, 1993).

[14] Cephalopelvic disproportion, meaning the mother's pelvic opening is too small for the infant's head to pass; can delay or prevent vaginal delivery.

[15] Vesica vaginal fistula, a tear between the vagina and rectum or urinary tract, allows leakage of urine or feces.

[16] "Unwed" was defined as not having received a bride price.

Of the young women surveyed, 55 percent indicated that having children was very important to them, while 46 percent said that getting married was very important (Palka, 1992). The study did not, however, ask the girls *when* they wanted to become pregnant.

To address these motivations and to reduce adolescent childbearing, Zambia's former President Kenneth Kaunda made the following recommendations:

- Offer family education and family planning counseling to all, including teenagers;
- Provide education and employment opportunities as alternatives to adolescent pregnancy;
- Increase public awareness of fertility-related problems facing young adults; and
- Support all programs designed specifically for young women (Kaunda, 1989).

## Induced Abortion

Abortion is legal in Zambia under the 1972 Termination of Pregnancy Act. A legal—hence safe—abortion is not easily available, however, and services and information are almost inaccessible to most young girls. Until recently, a woman could have a legal abortion only if three physicians, one of whom was a specialist in a branch of medicine related to the woman's reason for seeking an abortion, could certify her need. Certifiable need was demonstrated when a woman's physical health or the mental health of her children was threatened or if there was a strong likelihood of congenital abnormalities (Pillai *et al*., 1993). Many hospitals did not have three doctors at any given time or did not have a gynecologist on staff (Bradley *et al*., 1991). Although this requirement has now been rescinded, conditions throughout the country are such that access to safe abortion is still limited (Jabani, 1995).

Unsafe and poorly performed abortions are a major cause of maternal mortality in Zambia (Castle *et al*., 1990). In a study of 288 maternal deaths in Zambian hospitals between 1990 and 1993, approximately 30 percent were associated with poorly performed abortions (Likwa, 1994c). Hospital records alone, however, do not reflect the full extent of mortality and morbidity caused by abortion because many abortion-related maternal deaths occur outside health facilities and never appear in formal records.

Treatment of abortion-related complications remains inadequate despite some recent improvements. A 1988 study at UTH's gynecological emergency ward indicated that one-third of women seeking treatment for abortion-related complications completed their abortions on the floor or on their way to a toilet. Nurses reported that the average patient waited 12 hours in crowded conditions for treatment. Staff members did not give patients food, water, or medications because of expected administration of general anesthesia. There were no sanitary supplies or blankets. Patients with illegally induced abortions were placed at the end of the roster after scheduled cases. Because of blood supply shortages, very few women received transfusions (Castle, 1989).

Some 80 percent of the women who were admitted to hospitals with induced abortion-related complications were younger than 19 (Likwa, 1989). Young women are more likely than older women to undergo illegal unsafe abortion. A study conducted to determine sociodemographic differences between 199 women who obtained *legal abortions* and 65 who were hospitalized with complications after *illegal abortions* revealed that women who succeeded in obtaining *legal abortions* tended to be between ages 20 and 29 (55 percent), had some secondary education (60 percent), and had children (71 percent). Most women undergoing *illegal abortions* were between ages 15 and 19 (60 percent), had some secondary education (55 percent), were unmarried (80 percent), and had had no prior pregnancies (63 percent). Of those who resorted to illegal abortions, 81 percent were students who wanted to continue their education.

In the illegal abortion group of 65 women, the most common method (33 percent) used was insertion of a cassava root into the cervix. Four deaths occurred among women in this group. None occurred in the group receiving legal abortions. Only 12 percent of the women resorting to illegal abortions and 27 percent of those who received legal abortions had ever used modern contraceptives (Likwa *et al*., 1994).

Despite the relatively lower risk of abortion early in pregnancy, many adolescents and women of lower socioeconomic status delayed abortion procedures until the second trimester. This may be a result of lack of information, fear, or hesitation on religious grounds. For young girls, this could also be failure to recognize signs of pregnancy, refusal to face the situation, or hope for spontaneous abortion (Castle *et al*., 1990).

The MOH reported that doctors in Zambia's hospitals performed 1,164 legal abortions in 1993. The same source shows that 17,977 women were treated in hospitals for complications of illegal abortion during the same year (Likwa *et al*., 1994). This figure does not reflect the total number of unsafe abortions because some hospital records are intentionally changed to avoid contradicting the official doctrine or law on abortion. This substantial difference between the recorded legal abortions and the implicit evidence of illegal abortions can be explained partly by the inaccessibility of legal abortion services.

To improve abortion care, the UTH in Lusaka in the 1980s began a three-year training and in-service delivery program on the use of manual vacuum aspiration (MVA) in place of dilatation and curettage. (The MVA method reduces recovery time and thus allows women greater privacy when explaining absences to families, schools, or employers [Bradley *et al.*, 1991]). Reports have shown that MVA reduces the likelihood of complications from hemorrhage and sepsis. Treatment is safer, more timely, and less traumatic. The quality of patient-staff interactions has improved as a result of the training program. Demand for the hospital's main operating room for abortion services has decreased, and this has permitted use of space, time, and resources for other gynecological treatments. Family planning counselors at the UTH now provide full-time pre- and post- abortion services to clients (Bradley *et al.*, 1991).

# Chapter IV
# Fertility, Family Planning, and Contraceptive Practices

## Fertility

In Zambia, as elsewhere in sub-Saharan African societies, children have always been important and valued. Besides being a source of joy, children help with household duties and help care for ill or aging relatives. Children are socialized with the important value of continuing the family lineage and remembering their ancestors. Having children is perceived as a blessing and sign of wealth and well-being.

**Total fertility rate**. Zambia's total fertility rate in 1992 was 6.5. Strong regional differences exist, however, with fertility rates highest in Luapula and Northern Provinces (7.4) and lowest in Lusaka (5.5) and Copperbelt (6.0) Provinces. Urban women currently have a TFR of 5.8; the TFR is 7.1 for rural women (see Table 10).

**Table 10. Fertility by Sociodemographic Characteristics: Total Fertility Rate for the Three Years Preceding 1992 ZDHS**

| Sociodemographic Characteristic | Total Fertility Rate[a] |
|---|---|
| **Residence** | |
| Urban | 5.8 |
| Rural | 7.1 |
| **Province** | |
| Copperbelt | 6.2 |
| Eastern, Central | 6.8 |
| Lusaka | 5.5 |
| Luapula, Northern | 7.4 |
| Southern | 7.1 |
| Northwestern, Western | 6.0 |
| **Education** | |
| No education | 7.1 |
| Primary | 6.8 |
| Beyond secondary | 4.9 |
| NATIONAL | 6.5 |

SOURCE: ZDHS, 1992
NOTE: [a] Women ages 15 to 49 years

There is a correlation between educational level and TFR. The TFR for women with no formal schooling is 7.1. Those with more than a primary education have a TFR of 6.8; those with secondary or higher education have the lowest TFR, 4.9 (Gaisie *et al.*, 1993).

The 1992 ZDHS provides evidence of a fertility decline over the past 20 years. A comparison of the current TFR for all age groups (6.5) to the TFR of women ages 40 to 49 (7.7) indicates a decline of one child per woman. Age-specific fertility rates for five-year periods prior to the survey also show a fertility decline when compared with most other previous five-year periods (Gaisie *et al.*, 1993).

**Unwanted fertility**. Although family size norms in Zambia are high, there is evidence of unwanted fertility. The total wanted fertility (TWF) rate is 5.4 births. This is 1.1 births fewer than the actual TFR of 6.5. Women report that 7 percent of births are not desired and 26 percent are mistimed. Variations in TWF and TFR exist between age groups, parity groups, and provinces. Unwanted fertility is most common in women older than 40 and in women with four or more children. In the Northwestern and Western Provinces the differences between TWF and TFR are smaller because the TWF is higher (Gaisie *et al.*, 1993).

Of those women who have five children, 17 percent said they would prefer to have four. Of women who have six or more children, 25 percent said they would prefer to have five or fewer (Gaisie *et al.*, 1993). In a 1984 study conducted in urban and rural Lusaka and Ndola districts, respondents' average ideal number of children was 7.1 (Ali, 1984). This decreased slightly to 7.0 in 1988, according to a study conducted in Kabwe (Ondolo *et al.*, 1990), and the TWF has continued to decrease since the 1980s. These estimates are much higher than the 5.4 indicated in the 1992 ZDHS. This difference may be caused by a combination of a change over time in TWF and sampling differences. As the ZDHS is a nationally representative sample, it can be assumed to yield a more reliable estimate.

**Young women's fertility patterns**. Zambian women today tend to marry later than their mothers did. 1992 ZDHS data suggest that younger women postpone childbearing longer than older cohorts did. Median age at first birth for women in their early twenties is slightly higher (19.1) than that of women in their late twenties (18.8) and older (below 18.5).[17] The proportion of women who delivered before age 20 declined from 76 percent among the cohort of women currently ages 35 to 39 to 61 percent among the cohort currently ages 20 to 24 (Gaisie *et al.*, 1993).

[17]Other DHS reports show similar trends in most Asian and North African countries.

While the TFR may be declining, the total number of births among young adults will continue to be high because of the increased number of women now entering their reproductive years. Between 1980 and 1992 , the proportion of women ages 15 to 19 has increased from 24.6 percent to 28.1 percent. This age group is now the country's largest cohort of women of reproductive age (Gaisie *et al.*, 1993). Many are sexually active and have little knowledge of and access to family planning (Lucas, 1992; Meekers, 1994).

Over the same 12 years, young adults' proportional contribution to the TFR has increased from 11.1 percent to 12.3 percent (Likwa, 1994). In comparison, the TFR for this age group in Kenya remained constant at 11.3 percent between 1979 and 1989 (Mowa, 1994).

## Contraceptive Awareness

According to the ZDHS 1992, approximately 90 percent of sexually active women[18] report being aware[19] of at least one modern contraceptive method. Most married women are aware of the pill (85 percent), condom (73 percent), and female sterilization (71 percent). Many women are also aware of traditional methods such as withdrawal (59 percent) and periodic abstinence (40 percent) (see Table 11) (Gaisie *et al.*, 1993).

**Table 11. Zambian Women's Awareness of Contraceptive Methods and Source, in Percents, by Method**

| | Aware of a Method[a] | | Aware of a Source | |
|---|---|---|---|---|
| Contraceptive Method | All Women[b] | Married Women[c] | All Women[b] | Married Women[c] |

[18] "Sexually active women" in the ZDHS 1992 study were regarded as "currently married women."

[19] In the literature the terms "knowledge," "familiarity," and "awareness" are often used interchangeably. It is important to distinguish them, however, in the 1992 ZDHS survey, only one question is asked to assess women's "knowledge" of contraceptives: [There are] various ways or methods that a couple can use to delay or avoid pregnancy. Which ways or methods have you heard about? (question #301) (Gaisie *et al.*, 1993). Respondents score for each method spontaneously mentioned, but they also score when recognizing a methodafter probing. In this report, this "knowledge" will be referred to as "awareness."

**Table 11. Zambian Women's Awareness of Contraceptive Methods and Source, in Percents, by Method**

| | Aware of a Method[a] | | Aware of a Source | |
|---|---|---|---|---|
| Any method | 89.4 | 93.7 | 81.4 | 87.5 |
| Any modern | 87.1 | 90.7 | 81.1 | 87.2 |
| method | 78.1 | 84.7 | 71.1 | 79.0 |
| Pill | 43.0 | 49.2 | 38.1 | 44.0 |
| IUD | 38.1 | 42.9 | 24.3 | 39.0 |
| Injection | 23.8 | 26.7 | 21.5 | 24.6 |
| Diaphragm/foam/je | 72.0 | 73.3 | 60.7 | 64.4 |
| lly | 63.6 | 71.0 | 58.4 | 66.0 |
| Condom | 17.9 | 20.8 | 16.8 | 19.7 |
| Female | 66.4 | 77.6 | NA | NA |
| Sterilization | 36.1 | 40.3 | 29.0 | 33.0 |
| Male Sterilization | 47.8 | 58.5 | NA | NA |
| Any Traditional | 34.7 | 42.7 | NA | NA |
| Method | | | | |
| Periodic Abstinence | | | | |
| Withdrawal | | | | |
| Other | | | | |
| NUMBER OF | 7,060 | 4,457 | 7,060 | 4,457 |
| WOMEN | | | | |

SOURCE: ZDHS 1992.

NOTES: NA=Not applicable
a. Spontaneous and assisted awareness,
b. N=7,060
c. N=4,457

In a 1984 survey among 300 married men and women in urban and rural Lusaka and Ndola, 90 percent mentioned having heard about modern contraceptives. Only 62 percent could name the pill, however; 36 percent named injectables, 21 percent the IUD, and 14 percent condoms. Scores for traditional methods were 41 percent for *mphimphi*[20] and 36 percent for the *mankwala*[21] method (Ali, 1984).

Contraceptive awareness was high in Copperbelt (97.0 percent), Lusaka (91.0 percent), and Southern Provinces (90.3 percent). Central Province had the lowest awareness (66.4 percent), followed by Western (78.3 percent) and Eastern (84.7 percent) Provinces (Gaisie *et al*., 1993).

[20] *Mphimphi* is an external traditional medicine made of beads of different colors tied with fibers around the woman's waist. This medicine is not removed during sexual intercourse. *Mphimphi* can be also taken internally as an herbal potion (Ali, 1984). The MOH also mentions traditional family planning methods as waistbands made of knotted fibers (*kaumbu*) or *matepo a chamba* (cannabis leaves) (MOH, 1995).

[21] *Mankwala* is another traditional medicine and also tied around the woman's waist with fibers. It is removed during menstruation and re-tied upon completion. This medicine is not removed during sexual intercourse either. There is also a Mankwala medicine that women drink. It is thought that the number of days they drink it corresponds to the number of years for contraceptive protection (Ali, 1984).

In 1986, Pillai conducted a study among 85 randomly selected male workers of the University of Zambia. All were married, literate, and had low-paying jobs. Although the sample size was small, the study provided evidence that the wife's educational level had a significant and positive effect on the husband's awareness of family planning methods. The awareness level among husbands increased as wives' education level increased. These results suggest that educated women play a significant role in the diffusion of family planning information (Pillai, 1992, 1993). Among these men, the pill (43.5 percent), IUD (41.2 percent), and diaphragm (32.9 percent) were the three modern female methods mentioned most often; 22 percent mentioned the condom, 8 percent vasectomy, 30.6 percent rhythm, and 31.8 percent natural method. Abstinence (71.8 percent) was the method most often mentioned overall (Pillai, 1992).

## Attitudes Toward Family Planning

Despite the fact that the culture has supported the notion of child spacing for generations, modern family planning has not been universally accepted. About 80 percent of married women who are aware of a contraceptive method approve of family planning. This means that about one out of five disapproves. This may be caused by a number of perceived or real disadvantages of family planning.

In a study conducted in Lusaka and Ndola districts (n = 300), respondents mentioned the following disadvantages of modern contraceptives:

- They have bad side effects (41.3 percent);
- They cause infertility (27.3 percent);
- They encourage prostitution and female promiscuity (3 percent);
- They are unnatural, and their use is against religious doctrine (2 percent); and
- They are unreliable (1.7 percent).

Most of the 19.7 percent who disapproved of family planning did so because they think it is against their religion (12.7) or they want more children (4.3 percent)[22] (Ali, 1984).

Eighty percent of respondents, however, felt that they needed more information and expressed interest in knowing more about family planning. They suggested that the

[22] Spousal disapproval is not mentioned in Ali's 1984 study.

government introduce family planning information and services programs. About the same percentage said that they would visit family planning clinics established near their homes (Ali, 1984).

Women between 45 and 49 years of age approved of family planning less than did younger cohorts. Women from urban areas and those who lived in Western, Central, or Northern Provinces were more likely to approve of family planning than others (Gaisie *et al.*, 1993). In Ali's study, the main reasons for respondents' approval of family planning were:

- It helps limit or space births (49.3 percent);
- It promotes adequate support for the family (14.7 percent); and
- The cost of living is high (5.4 percent).

Approximately 67.4 percent said that modern contraceptives were hygienic, reliable, safe, and effective. Some 35 percent felt that traditional family planning was reliable. Almost two-thirds (62 percent) reported that traditional contraceptives were unreliable, unhealthy, unhygienic, and unsafe or poisonous (Ali, 1984).

In the 1992 ZDHS women ages 15 to 29 who did not intend to use contraceptives in the future gave the following reasons: some 51 percent wanted to become pregnant, 15 percent felt they lacked the knowledge to make an informed decision, 11 percent reported difficulty getting pregnant, and 6 percent mentioned side effects or general health concerns (see Table 12). The most frequently reported reasons for women ages 30 to 49 were: difficulty getting pregnant (27.3 percent), wanting a child (25.2 percent), menopause (19.4 percent), and lack of knowledge (6.9 percent) (see Table 12) (Gaisie *et al.*, 1993). The high percentages given for "difficult[23] to get pregnant" in both age groups is surprising. Further research is needed to determine how best to help those respondents achieve their desired family size. Among women who did not intend to use family planning, only 2.8 percent said they were opposed to family planning. Others perceived or experienced opposition from their partner (1.5 percent), religion (1.3 percent), or other people (0.3 percent) (see Table 12) (Gaisie *et al.*, 1993).

[23] The term "difficult" is subjective and is not further defined in the ZDHS 1992 questionnaire or the report.

**Table 12. Zambian Women's Reasons for Not Using Contraceptives, in Percents, by Age**

| Reasons | Ages 15-29[a] | Ages 30-49[b] | Total[c] |
|---|---|---|---|
| Want children | 50.7 | 25.2 | 36.7 |
| Lack of knowledge | 15.2 | 6.9 | 10.6 |
| Difficult to get pregnant | 11.5 | 27.3 | 20.2 |
| Partner opposed | 3.5 | 3.8 | 1.5 |
| Side effects | 6.0 | 3.3 | 4.5 |
| Cost too much | 0.1 | 0.3 | 0.2 |
| Health concerns | 1.2 | 1.7 | 1.5 |
| Hard to get | 1.2 | 0.4 | 0.8 |
| Religion | 0.7 | 1.9 | 1.3 |
| Opposed to FP | 2.4 | 3.1 | 2.8 |
| Fatalistic | 0.3 | 0.9 | 0.6 |
| Other people opposed | 0.4 | 0.1 | 0.3 |
| Infrequent sex | 0.3 | 1.0 | 0.7 |
| Menopausal/had | 0.1 | 19.4 | 10.7 |
| hysterectomy | 0.9 | 1.1 | 1.0 |
| Inconvenient | 2.3 | 2.6 | 2.4 |
| Other | 3.1 | 1.0 | 1.9 |
| Don't know | 0.1 | 0.0 | 0.1 |
| Missing | | | |
| TOTAL | 100.0 | 100.0 | 100.0 |

SOURCE: ZDHS 1992.

NOTES: a. N=763
b. N=930
c. N=1,693

Pillai's study among the 85 Catholic and non-Catholic male workers indicated that, although Catholics are less likely to use contraceptives, their attitudes toward family planning are favorable. Almost 82 percent of Catholic respondents had never used contraceptives; 58 percent of them did not intend to use family planning in the future, compared to 49 percent of non-Catholics. A higher proportion of Catholics than non-Catholics, however, responded that they would like their wives to practice family planning (Pillai, 1992).[24] Although the correlation between religion and family planning use was only weakly significant ($r=0.24$, $p < 0.05$) and Catholics showed a positive attitude toward family planning, those attitudes have not resulted in family planning use or in discussing family planning methods with friends and spouses (Pillai, 1992). The small sample size, however, suggests caution in interpreting these findings.

[24] In this article Roman Catholic respondents are not asked about natural family planning (NFP). Although NFP is not practiced by Roman Catholics only, it is the only family planning method approved by the Church.

Of women who intended to use contraceptives, 59 percent said that they would most likely use the pill (Gaisie *et al.*, 1993). Previous studies showed a similar preference for the pill. Brown suggests, however, that a greater proportion of women would prefer to use other methods if they knew about and had access to them (Brown *et al*., 1987). Female sterilization was the next most popular method (8 percent). Women who are uncertain about when they will begin family planning use are also uncertain about which method they might choose (Gaisie *et al*., 1993).

Male contraceptive methods are unpopular in Zambia. Men complained that condoms reduce sensation and their wives often considered them a nuisance. Vasectomy is unpopular in most African countries. In Zambia, men commonly believe that the procedure leaves them impotent (Chirambo, 1992).

## Contraceptive Practices

There is a large gap between level of family planning awareness and modern family planning practices (see Table 13).

ZDHS 1992 reported that current contraceptive use among married women is 15 percent. Nine percent of women use modern methods and 6 percent use traditional methods. Forty percent of all women respondents indicated "ever use"; of those, 23 percent used modern methods (see Table 14) (Gaisie *et al*., 1993). Although the pill is the modern contraceptive most commonly used (see Table 15), access to it is still limited. Because service delivery points receive their stocks of pills from a variety of sources, at least eight different brands of pills are available across the country. This profusion of pill-types has not meant an expansion of contraceptive choice, rather it has prompted providers and users to select and use one or two brands they recognize at the expense of the others (MOH, 1995).

**Table 13. Current Awareness and Use of Family Planning Methods by Zambian Women, in Percents, by Method**

| | Awareness | | Use | |
|---|---|---|---|---|
| | All Women[a] | Married Women[b] | All Women | Married Women |
| Any method | 89.4 | 93.7 | 11.6 | 15.2 |
| Modern method | 87.1 | 90.7 | 7.0 | 8.9 |
| Pill | 78.1 | 84.7 | 3.5 | 4.3 |
| IUD | 43.0 | 49.2 | 0.4 | 0.5 |
| Injection | 38.1 | 42.9 | 0.1 | 0.1 |
| Female sterilization | 63.6 | 71.0 | 1.5 | 2.1 |
| Male sterilization | 63.6 | 71.0 | 1.5 | 2.1 |
| Foam/jelly/diaphragm | 23.8 | 26.7 | 0.1 | 0.1 |
| Condom | 72.0 | 73.3 | 1.4 | 1.8 |
| Any traditional method | 66.4 | 77.6 | 4.6 | 6.3 |
| Period abstinence | 36.1 | 40.1 | 0.8 | 0.9 |
| Withdrawal | 47.8 | 58.5 | 1.9 | 3.0 |

SOURCE: ZDHS, 1992.
NOTES: a. N=7,060
b. N=4,457

**Table 14. Ever and Current Contraceptive Use by Zambian Women, in Percents**

| Method type | All Women[a] | | Married Women[b] | |
|---|---|---|---|---|
| | Ever User | Current User | Ever User | Current User |
| Modern methods | 22.9 | 7.0 | 27.1 | 8.9 |
| Traditional methods | 27.1 | 4.6 | 34.9 | 6.3 |
| Any method | 39.9 | 11.6 | 49.2 | 15.2 |

SOURCE: ZDHS 1992.
NOTES: [a] N=7,060
[b] N=4,457

Older women tend to use more effective, long-term methods (see Table 15). The most commonly used contraceptive methods are withdrawal (24 percent among women ages 25 to 35), and the pill (19 percent among women between 25 to 39). About 6 percent of sexually active women above the age of 35 are sterilized (Gaisie *et al.*, 1993).

Current family planning use is lowest among women ages 15 to 19 (3.5 percent), although it is slightly higher among married women within this age group (8.7 percent). Women between the ages of 45 and 49 years also have low contraceptive prevalence (9 percent). Contraceptive use is highest among women in their late 30s (23 percent). Women in urban areas (20.8 percent) have a higher contraceptive prevalence

than the national contraceptive prevalence rate (CPR), as do women in Northern (17.5 percent) and Western (17.8 percent) Provinces (Gaisie *et al*., 1993). Women with more than four children (19.7 percent) and those who have primary (12.8 percent), secondary (27 percent), or higher (58 percent) education have CPRs above the national average.

**Table 15. Modern Contraceptive Use among Currently Married Women in Zambia, in Percents, by Sociodemographic Characteristics**

| Sociodemographic Characteristic | Any Method | Any Modern Method | Pill | IUD | Injection | Vaginal Methods[a] | Condoms | Female Sterilization[b] |
|---|---|---|---|---|---|---|---|---|
| **Residence** | | | | | | | | |
| Urban | 20.8 | 15.3 | 7.9 | 1.0 | 0.3 | 0.3 | 2.6 | 3.3 |
| Rural | 10.3 | 3.2 | 1.1 | 0.0 | 0.0 | 0.0 | 1.1 | 1.0 |
| **Province** | | | | | | | | |
| Central | 9.2 | 6.8 | 4.2 | 0.0 | 0.0 | 0.0 | 1.6 | 0.8 |
| Copperbelt | 19.0 | 13.6 | 7.1 | 0.7 | 0.4 | 0.1 | 1.7 | 3.5 |
| Eastern | 9.7 | 4.7 | 1.2 | 0.2 | 0.0 | 0.2 | 1.7 | 1.5 |
| Luapula | 9.5 | 6.0 | 2.8 | 0.0 | 0.0 | 1.2 | 1.2 | 0.9 |
| Lusaka | 24.2 | 17.6 | 8.1 | 1.3 | 0.1 | 0.1 | 4.3 | 3.7 |
| Northern | 17.5 | 3.1 | 1.8 | 0.0 | 0.0 | 0.1 | 0.3 | 1.0 |
| Northwestern | 10.4 | 5.9 | 1.8 | 0.0 | 0.0 | 0.0 | 1.3 | 2.8 |
| Southern | 8.5 | 4.2 | 2.3 | 0.2 | 0.0 | 0.0 | 1.2 | 0.7 |
| Western | 17.8 | 2.9 | 0.3 | 0.5 | 0.5 | 0.0 | 0.6 | 1.1 |
| **Education** | | | | | | | | |
| No formal | 8.0 | 2.7 | 0.9 | 0.0 | 0.1 | 0.0 | 0.4 | 1.2 |
| Primary | 12.8 | 6.3 | 3.1 | 0.1 | 0.2 | 0.0 | 1.4 | 1.4 |
| Secondary | 27.1 | 20.7 | 10.6 | 1.5 | 0.1 | 0.4 | 4.1 | 3.8 |
| Higher | 58.5 | 49.6 | 19.3 | 7.0 | 0.0 | 2.3 | 7.0 | 14.0 |
| **Age** | | | | | | | | |
| 15-19 | 8.7 | 3.4 | 1.8 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 |
| 20-24 | 13.1 | 7.7 | 4.3 | 0.1 | 0.1 | 0.0 | 3.0 | 0.1 |
| 25-29 | 15.3 | 8.6 | 6.0 | 0.5 | 0.1 | 0.0 | 1.8 | 0.2 |
| 30-34 | 18.3 | 10.7 | 5.5 | 1.3 | 0.1 | 0.4 | 2.0 | 1.3 |
| 35-39 | 22.5 | 14.1 | 6.0 | 0.2 | 0.2 | 0.4 | 1.0 | 6.1 |
| 40-44 | 17.4 | 11.0 | 1.3 | 1.1 | 0.3 | 0.3 | 0.8 | 7.3 |
| 45-49 | 9.0 | 6.3 | 0.6 | 0.0 | 0.4 | 0.0 | 0.0 | 5.3 |
| ALL MARRIED WOMEN | 15.2 | 8.9 | 4.3 | 0.5 | 0.1 | 0.1 | 1.8 | 2.1 |

SOURCE: ZDHS 1992.
NOTE: N=4,457
a. Vaginal methods are foaming tablets, diaphragm, foam, and jelly.
b. Male sterilization is omitted because of its low prevalence (0%).

Urban women are twice as likely as women in rural areas to use contraceptives (21 percent versus 10 percent). In addition, urban women are considerably more likely to use modern methods than rural residents (15.3 percent *versus* 3.2 percent). Most rural women rely on traditional methods such as withdrawal (3.6 percent), periodic abstinence (0.5 percent), and other methods (2.8 percent) such as wearing waistbands or ingesting herbs (Gaisie *et al*., 1993).

The Kabwe study surveyed 206 mothers, 97 percent of whom were peasant farmers who had children under 3 years of age. Results indicated the following:

- About 22 percent did not want any more children; only 9 percent of these women, however, practiced family planning.

- Grandmothers with five or more children still wished to have more children and therefore did not use contraceptives. None of the women with this many children practiced family planning.

- One-third did not use family planning because of maternal factors (just delivered, breastfeeding, wanted more children).

- More than half (55 percent) lacked information about family planning; 24 percent knew no method, 14 percent knew no reason to practice family planning, 12 percent did not respond, and 5 percent feared side effects (Ondolo *et al.*, 1990).

Ali's survey showed that several variables are correlated with family planning use: urban residence, education, and access to radio and television (Ali, 1984). Education was also an important factor in Pillai's study among 38 Catholic and 47 non-Catholic male workers in the University of Zambia; that study indicated that more women who have more than a primary school education (36 percent) practice family planning than women with primary or less education (12 percent) (Pillai, 1992). These findings are confirmed by the 1992 ZDHS data. Current use of any method rises with level of education. Women with no formal education have a contraceptive prevalence of 8 percent, and the CPR is 58.5 percent among women with more than a secondary education (Gaisie *et al.*, 1993). [25,26]

Although natural family planning is not widely used in Africa (Sheon and Stanton, 1989), it may be culturally acceptable because it is compatible with traditional birth-spacing practices such as postpartum sexual abstinence and prolonged breastfeeding (Gray *et al.*, 1993). Few women in Zambia, however, have the basic knowledge required to use these methods successfully.

Using NFP successfully requires that a woman recognize the fertile days in her menstrual cycle and that she abstain from intercourse during those days. In the 1992 ZDHS, one-half of all women and about one-sixth of ever-users of periodic abstinence could not indicate the fertile days of the menstrual cycle. Many incorrectly believed that

[25] This group constitutes 17 percent of the 1992 ZDHS sample.
[26] These women are only 2 percent of the 1992 ZDHS sample.

there is no particular time at which conception is more likely to occur, or they did not know when the fertile period occurs. Others thought that fertile days occur during menstrua-tion (Gaisie *et al.*, 1993). Ever-users of periodic abstinence are more knowledgeable about the monthly cycle than other women; 30 percent of ever-users correctly identified the fertile time as a span roughly midway between two menstruations, but 70 percent did not know (Gaisie *et al*., 1993). In a 1987 study among 80 adolescents, 28 percent of young women reported knowing about "counting days"; only 1 percent, however, knew how to do it (Peltzer and Likwa, 1993).

Several groups in Zambia promote NFP. These include the Family Life Promotion Committee (FLPC), the International Federation for Family Life Promotion (IFFLP), and the Family Life Movement of Zambia (FLMZ) (Cremins, 1985). These organizations distribute NFP materials published in English, Bemba, and Nyanja (Muchindu and Cremins, 1984).

## Potential Demand and Unmet Need

Zambia has a large potential demand for family planning services. The 1992 ZDHS data from a sample of 7,060 women between 15 and 49 years of age reported that about one-third (33.4 percent) of married women had an unmet need for family planning services. Twenty-one percent had a need for spacing reasons and 12 percent for limiting births. Unmet need was similar in urban and rural areas, where the demand was 34.4 percent and 32.6 percent, respectively (see Table 16) (Gaisie *et al*., 1993). This ZDHS estimate most likely would have been higher if sexually active girls under 15 years of age were included. (There is need for more study of very young teenagers' sexual activity.)

The total potential demand for family planning services refers to the combined met need (those already using a contraceptive) and unmet need for contraception. Women who have unmet need are those who:

- Are fecund and exposed to risk of conception, regardless of marital status;
- Want no more children (limiting) or want to wait two or more years before having another child (spacing); and
- Do not use any contraception or, if pregnant or postpartum amenorrheic, those whose last pregnancy or birth was unwanted or mistimed (Gaisie *et al*., 1993).

Women with more than secondary education had a contraceptive prevalence of 58.5 percent, compared with only 8 percent for those with no formal education. It is

important to note, however, that only 2 percent of the survey sample had more than secondary education while 17 percent of women had no formal education. Unmet need among women with no formal education is much higher (34.6 percent) than among better educated (11.2 percent). The proportion of those in need of family planning for spacing and limiting purposes varies by region (see Table 16) (Gaisie *et al.*, 1993).

**Table 16. Zambian Women's Unmet Need for Family Planning, in Percents, by Sociodemographic Characteristics**

| Sociodemographic Characteristic | For Spacing | For Limiting | Total |
|---|---|---|---|
| **Age Group** | | | |
| 15-19 | 23.9 | 3.9 | 27.8 |
| 20-24 | 25.9 | 3.0 | 28.9 |
| 25-29 | 26.1 | 5.4 | 31.5 |
| 30-34 | 23.0 | 10.2 | 33.2 |
| 35-39 | 16.9 | 22.6 | 39.5 |
| 40-44 | 9.9 | 32.4 | 42.4 |
| 45-49 | 6.6 | 35.5 | 42.1 |
| **Residence** | | | |
| Urban | 22.3 | 12.1 | 34.4 |
| Rural | 20.5 | 12.1 | 32.6 |
| **Province** | | | |
| Central | 14.4 | 12.1 | 26.6 |
| Copperbelt | 26.2 | 13.1 | 39.3 |
| Eastern | 23.6 | 11.6 | 35.1 |
| Luapula | 17.1 | 8.4 | 25.6 |
| Lusaka | 18.3 | 12.2 | 30.5 |
| Northern | 24.1 | 11.0 | 35.1 |
| Northwestern | 20.3 | 14.1 | 34.5 |
| Southern | 25.0 | 12.2 | 37.1 |
| Western | 8.2 | 13.0 | 21.2 |
| **Education** | | | |
| No formal | 17.3 | 17.3 | 34.6 |
| Primary | 22.9 | 11.9 | 34.7 |
| Secondary | 22.4 | 7.8 | 30.2 |
| Higher | 6.5 | 4.7 | 11.2 |
| ALL WOMEN | 21.4 | 12.1 | 33.4 |

SOURCE: ZDHS 1992.

The 1992 ZDHS study indicated that 63 percent of Zambian women want to delay a next pregnancy or stop childbearing altogether (Gaisie *et al.*, 1993). Data showed that 67 percent of married respondents want another child, 26 percent want another child soon, and 41 percent wish to delay a next birth for at least two years. Another 22 percent of respondents said that they did not want more children.

The proportion who desire a child within two years declined rapidly with the number of living children: 77 percent of those with no children, 36 percent of those with one child, and 7 percent of those with six or more children wished to have another. The desire to stop bearing children rose quickly with age from 2 percent of women ages 15 to 19 to 61.4 percent of those ages 45 to 49. Conversely, the desire to space births decreased with age from 59.8 percent of women ages 15 to 19 to 2.6 percent of those ages 45 to 49 (Gaisie *et al.*, 1993).

## Sources of Information

In the early 1980s, the primary sources of information about family planning for women in urban areas were friends (71 percent), doctors (42.7 percent), and nurses (38 percent). In rural areas, midwives (30 percent) and traditional healers (18.3 percent) were the most frequently cited sources of information on family planning. Radio (17 percent) was more popular than newspapers (5 percent) as a source. (Ali, 1984).

## Sources of Family Planning Methods

Most women who are aware of a modern contraceptive method know where to obtain supplies and information. There is still a gap, however, between awareness of a method and knowledge of its source. This gap is most apparent with condoms: 73 percent of married respondents have heard about condoms, but only 64 percent know where to get them (see Table 11). Awareness of their source is more widespread in urban (94 percent) than in rural (81 percent) areas (Gaisie *et al.*, 1993). A 1988 survey of 206 mothers in Kabwe District showed that 82 percent of all participants wanted more information about family planning methods. Only 57 percent knew where to obtain services or supplies (Ondolo *et al.*, 1990).

Over half (56 percent) of the women who use contraceptives most often receive their family planning supplies and services from government health facilities, 36 percent from private hospitals and clinics, and 7 percent from other sources(Gaisie *et al.*, 1993). The 1992 ZDHS data showed that about one-half of pill users obtained their contraceptives from a government health center and that about one-sixth (17.6 percent) received them from a government hospital. Female sterilization procedures were more often performed in private institutions (54 percent) than in government hospitals (45 percent) (Gaisie *et al.*, 1993).

One study reported that government facilities provided 42 percent of the condoms distributed, pharmacies 24 percent, and shops 16 percent. Fewer than 2 percent of users received condoms from friends or relatives (Gaisie *et al.*, 1993). In Manda's study among 400 male workers in Lusaka, 40 percent of users obtained condoms from

pharmacies, 26 percent from company clinics, 6 percent from hospitals, and 3 percent from friends. Most respondents believed that condoms should be available at hospitals, clinics, and places of employment (Manda, 1989).

The 1992 ZDHS questionnaire asked women who were practicing family planning how long it takes to travel (one way) from their home to the place where they obtain their contraceptives. Forty-four percent lived within 30 minutes of a family planning provider. Another 27 percent reported travel time of 30 minutes to one hour. About one-fourth were more than one hour away from their provider (Gaisie *et al*., 1993). This information reflects only one facet of accessibility, however. Other difficulties such as transportation and costs affect family planning accessibility, as does waiting time at the health facility and quality of care.

## Quality of Family Planning Services

Zambians today effectively have access to only two reversible contraceptive methods: the pill and condom. There are a number of reasons for this limited choice of methods including providers' biases, users' lack of information, inadequate provider training, and poor commodity distribution (MOH, 1995).

Many service providers have limited knowledge of and skills in providing family planning services. These limits are greatest in rural areas (Siamwiza, 1989). More than 50 percent of 75 service providers at the UTH in Lusaka revealed that they did not feel confident enough to counsel women on contraception (Freund, 1993). The MOH acknowledges that service providers are not qualified to counsel potential clients and that providers need training in this area (Ministry of Health, 1989). Family planning providers rarely ask their clients, most of whom are women, what their family planning needs and concerns are. This impersonal approach has had a negative affect on contraceptive prevalence and on women's health in general (Ministry of Health, 1995).

There are conflicting reports of the quality of service provision. Siamwiza's study showed that family planning providers were ready to help any client coming in for contraceptives, regardless of age and marital status (Siamwiza, 1989). In the Rapid Evaluation Methodology of MCH/FP (REM-Zambia) study conducted in 1989, however, most service providers (82.5 percent) expressed concern about helping unmarried women and teenagers with family planning services. Only 36.1 percent of health workers were willing to provide contraceptives to teenagers; 73.2 percent supported family planning education, and 62.9 percent agreed to counsel adolescents (MOH, 1989). Many did not seem to be very concerned about their roles as family

planning providers. Others had not mastered the basic family planning counseling techniques.

All medical personnel respondents felt that advocacy is to be supported only in a clinical environment (Siamwiza, 1989). This observation contradicts the 1992 ZDHS data that 73.2 percent of respondents find it acceptable to use mass media to disseminate family planning messages (Gaisie *et al.*, 1993), indicating that medical personnel tend to be more conservative than the public.

The limited number of family planning options offered is another hindrance to contraceptive use. Norplant is not widely available and injectables have not been popular nor widely available. The REM-Zambia study assessed the quality of MCH/FP services and clients' satisfaction. The study indicated that the most commonly used method was the pill (92.5 percent); 2.5 percent used foam tablets, and 2.5 percent used condoms (MOH, 1989). No clinic provided NFP information or counseling. This limited number of options prevents clients from making fully informed choices and selecting a method they find appropriate.

To improve family planning service provision, Siamwiza recommends the following steps: upgrading in-service programs, enhancing service providers' counseling skills, developing and maintaining a health information system, using service monitoring tools, and coordinating communication interventions (Siamwiza, 1989). The 1992 ZDHS questionnaire did not ask respondents about quality of services rendered, their level of client satisfaction, or, if applicable, reasons for discontinuation of family planning use. More research is needed in the area of quality of care to determine how in-service training, support, and supervision for family planning providers can be realized most effectively, to assess service providers' needs, to develop training curricula, to identify supply needs, and to promote providers.

## Integration of Services

Integration of family planning services with other MCH activities, a stated objective of the government, has not yet been achieved. This is a result primarily of the relatively little prestige given to family planning issues among many Ministry of Health personnel. Lack of incentives and of performance measures regarding family planning services point to the low priority given to the integration of family planning services (MOH, 1995).

## Discontinuation of Family Planning Use

No national data are available to determine why Zambian women discontinue family planning use. An evaluation study conducted in 1984, however, provides some useful information about this issue. The study examined characteristics of 500 contraceptive acceptors from family planning clinics in Lusaka Province. About 42 percent of acceptors had previously used modern methods. More than one-fourth (26 percent) of the acceptors did not return to the clinic within one calender year of their initial visit; 31 percent returned only once or twice (Brown *et al*., 1987). One-fourth of the clients made three or more visits to the clinic. Another 18 percent returned five or more times because of complications or because providers had given them small quantities of supplies. The high proportion (43 percent) of clients who made three or more visits to the clinic within a year indicated a high level of motivation to use family planning. Only 24 percent, however, were still using family planning after 12 months (Brown *et al*., 1987).

The most common reasons for discontinuation of family planning methods were inadequate supplies and experienced or perceived side effects. A PPAZ evaluation study randomly selected and interviewed 50 percent of discontinuers from a family planning clinic in Lusaka and compared them with continuers. Data showed no significant differences in sociodemographic characteristics between the two groups. Approximately 18 months after they had discontinued, 64 percent of those respondents were not using any form of contraception, although they were still at risk of pregnancy. Some 60 percent said, when asked, that they intended to return immediately to the health center they had formerly visited (PPAZ, 1986).

The study identified the need for improvements in inventory management, staff training in attitude, motivation, and counseling skills, clinic hours of operation, educating clients on possible side effects and postpartum contraception, and male involvement in family planning practice (PPAZ, 1986).

## Male Involvement in Family Planning

At all socio-economic levels and throughout all regions of the country, family planning is viewed as a woman's responsibility. In contrast, certain cultural institutions such as *lobola*, or bride-price, place reproductive rights and decision-making directly under the control of men (MOH, 1995).

Although family planning professionals in Zambia recognize the need to involve men in decision-making to a greater degree than has been done in the past, little is now known about men's knowledge, attitudes, and practices with regard to family planning. The 1992 ZDHS did not interview men, and the studies that have included men are few and small.

According to 1992 ZDHS data, contraceptive methods that require the participation of men during use—condoms, withdrawal, and periodic abstinence—make up 38 percent of all contraceptive use among married women and 35 percent among all women. Because of difficulties supporting large families in a period of economic crisis, family planning specialists anticipate an increase in male support for contraceptive use (Chirambo, 1992).

Two studies in the late 1980s indicated that friends have been a major source of information for men. In a study in Samfya (Luapula Province), about 57 percent of informants heard about family planning from their friends (Manda, 1988). In a survey about knowledge, attitudes, and practices regarding condom use among 400 male workers in Lusaka, Manda observed that friends were the primary source of information for ever-users (47 percent) and for nonusers (56 percent) (Manda, 1989). Unfortunately, there are insufficient data to measure trends over time.

The PPAZ has been the lead implementing organization in bringing family planning issues to the attention of men. It has a male counseling program serving rural communities along the railroad line from the northern Copperbelt Province to the urban centers in the south. The PPAZ also provides family planning services to companies. The following is an overview of current findings related to men's involvement in various aspects of family planning.

**Condom use, a male method.** Data on condom use are limited. The data that are available indicate that condom use is relatively low and few people use condoms consistently. Just over 10 percent of married women in the ZDHS reported that their sexual partners *ever* used condoms. The percent of married women reporting current use of condoms was 1.8 percent in 1992 (Gaisie *et al*., 1993).

A PSI survey was conducted at six work sites in Lusaka between June 1988 and September 1989 with 400 men (200 ever-users and 200 nonusers of condoms) ages 20 to 49 years to examine their knowledge, attitudes, and practices with regard to condom use. All respondents in agricultural work, in police work, and in the armed forces had used condoms at least once. More than 50 percent of those who worked in professional, clerical, and "other" white collar positions had used condoms. More than 50 percent of unskilled laborers, however, had never used condoms (Manda, 1989).

About 36 percent of ever-users reported current condom use, although how consistently was not determined. Of ever-users, 59 percent used condoms to prevent sexually transmitted diseases (STDs) and 36 percent to prevent pregnancy. Five percent used condoms for both purposes (Manda, 1989). Reasons given by ever-users who had discontinued use were cost (12 percent), desire to have a child (12 percent),

pregnancy (11 percent), and inadequate supply (10 percent). Further research is needed to clarify programmatic and research issues on male involvement.

In Chirambo's study (1992), 30 percent of men who said they used condoms were more likely to use them outside their marriage than with their wives. A social marketing project for distribution of MAXIMUM condoms has been operated by PSI and the Pharmaceutical Society of Zambia (PSZ) since December 1992. The program focuses on promoting condom use for AIDS prevention and not necessarily for family planning (PSI, 1993). This marketing approach is in response to the reported need for AIDS protection in nonmarital relationships.

**Husbands' approval**. The 1992 ZDHS recorded women's perceptions of their husbands' approval of family planning. Results indicated that:

- Of women who *approve* of family planning, 62 percent say that their husbands also approve; 20 percent who say that they approve of family planning indicate that their husbands do not; about 18 percent of women who approve are not sure about their partners' opinion on this matter.

- Of women who *disapprove* of family planning, 15 percent report that their husbands approve; 58 percent report their husbands' disapproval, and 27 percent are not sure of their partners' opinion (Gaisie *et al*., 1993).

DHS data from Tanzania showed that a large percentage of women have the wrong perception of their husband's family planning approval status, generally under-estimating the percent of those husbands who approve (Ngallaba *et al*., 1993). Because partners in Zambia were not interviewed in the 1992 ZDHS, this cannot be verified for Zambia. Given the low levels of husband-wife communication, it can be assumed that there were significant misperceptions.

The level of perceived certainty about husband's approval of family planning rises with level of education, as does level of spousal communication. Some 20 percent of women with no education who approve of family planning are uncertain about their partners' attitudes, compared with 3 percent of those with higher education. The same pattern exists among women who disapprove of family planning. Ten percent of women with no education who are opposed to family planning are unsure of their husbands' opinion, compared with none among those with higher than secondary education.

# Chapter V
# Mass Media, Community-Based, and Interpersonal Communication on Family Planning

To date, very little systematic coordination, documentation, or evaluation of the various family planning and reproductive health information, education, and communication (IEC) projects has been carried out (MIBS, 1994). Relatively little has been published about the IEC components of family planning programs. Therefore, information about previous IEC campaign designs, the areas of operation, message content, and audiences for which they were developed is limited. Available evidence in the literature suggests that IEC activities on family planning have been sporadic. Family planning IEC in the country has been beset by many constraints.

## The National IEC Communication Programme, 1994-2000

The shortcomings mentioned above have been recognized by the government which has instituted the National Population Information, Education, and Communication Programme, 1994-2000, to help achieve the National Population Policy objectives (see Chapter 2). The program is intended to bring direction and coherence to the population IEC activities implemented independently by diverse organizations. The National IEC program will be based on:

- Identification and segmentation of target audiences to guide design and development of culturally appropriate messages, choice of channels, and methods;

- Involvement of target audience(s) in planning and developing the design, message, and material;

- A multimedia approach with use of mass media, traditional media, and interpersonal communication;

- Coordination of efforts, linkages with service deliveries, institutionalization, and sustainability of activities; and

- Systematic output monitoring and impact evaluation (MBIS, 1994).

The National Population IEC Programme performance indicators for the year 2000 are:

- Increased level of awareness of modern family planning methods from 87 percent in 1992 to 98 percent among women ages 15 to 45;

- Increased awareness of family planning among adult men to 100 percent;

- Extended coverage of population education in science, home economics, and social studies curricula in all primary and secondary schools and in all teacher training colleges; and

- Increased awareness of population issues among out-of-school youth by at least 50 percent (MIBS, 1994).

According to the National Population IEC Programme document, the population activities undertaken by the various government and nongovernmental organizations have consisted mainly of production and dissemination of IEC materials, training of community leaders in population and development issues, the teaching of population education in pilot schools and teacher training colleges, training of teachers, nurses, and clinical officers, journalists, and workers in the organized sector.

A significant achievement was the formation in 1991 of the IEC Sub-committee of the Inter-technical Committee for Population. This Sub-committee has responsibility for coordinating family planning IEC activities.

Factors that have constrained IEC activities in the past present challenges for future programs. These include:

- Lack of professional and trained IEC personnel at national, provincial, and district levels;

- Weak coordination and collaboration among organizations and agencies involved in population IEC activities;

- Population IEC activities carried out as projects, without an adequate institutional base;

- Shortages of transportation and equipment;

- Inadequate local funding;

- Lack of baseline data for designing population IEC interventions; and

- Lack of systematic monitoring and evaluation mechanisms (Ministry of Information and Broadcasting Services, 1994).

## Exposure and Acceptability of Family Planning Messages in the Media

Low levels of family planning IEC activities are reflected in the low levels of exposure among the population to family planning messages in the media. The 1992 ZDHS asked respondents if they had heard family planning messages on the radio or television during the month preceding the survey. In rural areas 93 percent had not heard anything about family planning on radio or TV in the past month. Only 6 percent had heard messages on the radio. In urban areas, two-thirds had not heard anything. Women with higher education were more likely to have heard a family planning message than those with primary education or no formal education at all (Gaisie *et al.*, 1993).

These low exposure levels reported by 1992 ZDHS, however, may be in part due to the fact that the survey asked about exposure during the previous month only, as opposed to the past year, as is more commonly done.

The 1992 ZDHS also asked women whether they believed that it is acceptable to broadcast family planning messages on radio and television. Nearly three-fourths of the respondents found it acceptable, with some difference between the urban (78.9 percent) and rural (67.1 percent) areas. About 55 percent of women in Eastern and 43 percent of those in Southern Province, however, reported that mass media coverage of family planning is unacceptable. Here again, more educated women accepted family planning messages on radio and television than women who attended school for only a few years or not at all. The women with lower educational levels also had less access to radio, television, and print media (Gaisie *et al.*, 1993).

Television and newspapers in Zambia largely serve the needs of the urban population and people living along the rail line. Approximately 58 percent of the total population lives in rural areas, where they are excluded from both of these sources of information. Because newsprint prices and linguistic diversity often limit the reach of print media[27] (Nyirenda, 1986), radio appears to be the most effective mass-media channel for reaching rural populations. Respondents in focus group discussions identified radio as an important source of information. Early mornings and late nights were identified as the most popular listening times (MOH / CCP / AIDSCOM, 1990).

## Interpersonal Communication About Family Planning

[27] According to estimates by UNESCO, the average rate of adult illiteracy was 27.2 percent (males 19.2 percent and females 34.7 percent) (Europe World Year Book, 1994).

**Intergenerational communication within families**. A study among 516 female higher secondary school students revealed that the girls' mothers were a more important source of information than their fathers. Girls reported that their mothers provided information about issues related to sexuality spontaneously (52.2 percent) or when asked (24.0 percent) (Palka, 1992). About 30 percent say that it was easy to discuss sexual matters with their mothers (Pillai *et al*., 1993). In Palka's study, 23.8 percent reported that their mothers did not provide sex education. Only 23.4 percent of fathers volunteered information and 15.1 percent provided it when asked; 61.5 percent of respondents said their fathers did not provide any information. Virtually all teenage girls (91.1 percent) reported that it was not easy to discuss sexual matters with their fathers, and 49.7 percent said the same about their mothers (Palka, 1992).

Among students 17 years of age and older, 46 percent learned about sex through the traditional initiation ceremony (Pillai *et al*., 1993). Advocates of this practice suggest that the issue of adolescent sexuality be addressed in ways that include the whole family so that the family may retain its position in guiding values (Palka, 1992). Although Palka is not specific, members of the extended family such as mother's sisters and father's brothers may be encouraged in their role as communicators on matters regarding sexuality with their nieces and nephews, rather than with their own children.

**Couple communication and family planning responsibilities**. Family planning discussion between spouses in Zambia is more common among more highly educated and urban couples (Gaisie *et al*.,1993; PSI ,1993). A number of studies have indicated that husband-wife communication about family planning and their actual use of contraception are closely related (Baah-Boakye, 1988; Hardee-Cleaveland, 1992; Nyblade and Menken, 1993; Traore *et al*., 1989). In the 1992 ZDHS, women were asked how many times family planning was discussed with their husbands in the year preceding the survey. About one-third (31 percent) said they had discussed the topic once or twice. One-fourth reported having discussed the issue of family planning more often. Women in their twenties and thirties discussed family planning with their spouses more often than older and younger women (see Table 17) (Gaisie *et al*., 1993). In 1990, 10 focus group discussions with men and women between the ages of 16 and 39 in Lusaka, Kabwe, and Kasama revealed that couples rarely discussed AIDS and condom use (Chirwa *et al*., 1991).

**Table 17. Frequency of Zambian Couples' Family Planning Discussion During Previous Year as Reported by Women, in Percents, by Age**

| Age Group | Never | Once or Twice | Three or More | Not Ascertained |
|---|---|---|---|---|
| 15-19 | 51.6 | 30.8 | 17.1 | 0.5 |
| 20-24 | 38.9 | 35.3 | 25.5 | 0.1 |
| 25-29 | 37.9 | 31.7 | 30.1 | 0.2 |
| 30-34 | 38.4 | 32.9 | 28.2 | 0.4 |
| 35-39 | 38.4 | 27.0 | 34.4 | 0.1 |
| 40-44 | 45.2 | 38.9 | 25.6 | 0.3 |
| 45-49 | 60.2 | 22.9 | 16.9 | 0.0 |
| ALL WOMEN | 41.8 | 31.3 | 26.6 | 0.2 |

SOURCE: ZDHS 1992.

In Ali's survey in Lusaka and Ndola regions, 61 percent of respondents said that they talked with their spouses about contraceptive use while 38 percent did not. Respondents between 20 and 30 years of age discussed family planning more often than older respondents (Ali, 1984). Those who had attended school discussed sexual matters with their spouses more often than those without a formal education, and urban residents discussed desired family size more than rural respondents (Ali, 1984). Pillai's study among 85 male workers in the University of Zambia indicated that about 78 percent of respondents discussed family planning matters with their wives and 47 percent reported discussing family planning with friends. Thirty-three percent of non-Catholics reported discussing family planning with their wives "often," compared with 22 percent of Catholics (Pillai, 1992).

Almost one-third (29 percent) of Pillai's male respondents considered family planning to be a woman's responsibility (Pillai, 1992). The respondents' interpretation of this responsibility and whether or not it included partners' approval or financial support was not clear, however.

In Ondolo's study conducted in Kabwe, 61 percent of 176 married women surveyed reported not having talked with their husbands about how many children they both would like to have. "Husband factors"[28] accounted for 11 percent of the stated reasons for nonuse of contraceptives. Approximately 56 percent, however, had no idea how many children their husbands wanted. Of couples who did discuss family size, most disagreed on the desired number (Ondolo *et al.*, 1990). Neither the Kabwe study nor 1992 ZDHS sought comparable information from men.

[28] "Husband factors" are husbands opposed to family planning (4 percent), husband away (3.4 percent), and not married (3.9 percent) (Ondolo *et al.*, 1990).

Data suggest a very low level of interpersonal communication on the topic of family planning between young sexual partners. In Peltzer's study in 1993 of 80 pregnant young women in Lusaka, many girls reported that their boyfriends had asked them about their days of menstruation. The young women did not know, however, why their partners were interested, suggesting that girls never asked boys why they wanted to know this. Results show that 67 percent of male partners had a negative reaction to a pregnancy and that 16 percent of partners rejected responsibility for the pregnancy (Peltzer and Likwa, 1993).

**Sex education for young people.** Young Zambians are sexually active (see chapter 3), but their contraceptive use is the lowest of all age groups (3.5 percent) (Gaisie *et al.*, 1993). There is a need for more information, education, and counseling on reproductive health issues for young people. Proponents of sex education suggest that school curricula include sex and family life education (Likwa, 1989). Although a pilot In-school Population and Education curriculum was conducted from 1987 until 1992 (Ministry of Education, 1992), sex education was not part of the package.

Justification for school-based sex education classes include several important facts:

- Premarital sexual activity is common;
- Communication between children and parents is limited;
- Access to and use of contraception among young people is limited; and
- Traditional channels of communication are breaking down;

School-based sex education is thought to hold promise for facilitating inter-generational communication and providing accurate information to help young people control their fertility and reduce the spread of STDs, including HIV / AIDS (Pillai *et al.*, 1993). Additional recommendations are that:

- Teenagers be given access to welfare services that promote health and offer sex education and family planning services;
- Parents be given guidance in instructing and advising their teenage children, nephews, and nieces;
- Peer group programs be used to distribute information and offer emotional support; and
- Family planning policy and services emphasize the important role of family and peers and support traditional channels of communication (Pillai *et al.*, 1993).

## IEC Activities on CDD and HIV/AIDS

Innovative and comprehensive IEC campaigns on other health issues have been mounted in Zambia in the past. Two notable examples are the Control of Diarrheal Diseases (CDD) campaign in the late 1980s and the HIV/AIDS campaign during the early 1990s. The CDD campaign is interesting for its use of popular theater. The HIV/AIDS campaigns were more comprehensive and better documented than other IEC activities.

**Popular theater.** Street theater is sometimes used to publicize health messages. There is, however, little literature that describes the planning, implementation, and evaluation of these interventions. The Zambian Control of Diarrheal Diseases (CDD) Program is an exception, however. This program worked with two popular theater groups to develop a play on using oral rehydration therapy (ORT) to prevent dehydration resulting from diarrhea, the importance of breastfeeding, continued feeding during diarrhea episodes, and use of other liquids. The groups performed in 40 highly populated communities in Lusaka six times each week for a period of three months. Each session lasted 35-40 minutes and included singing and dancing.

Before each play, one group went from door to door to inform people about the upcoming event. If people could not attend, facilitators explained ORT directly. After each performance the audience was encouraged to discuss with actors what they had learned. Misconceptions about ORT were corrected. The groups always performed in locations convenient to women such as marketplaces, outside clinics, and schools. Several plays were recorded and aired on local language radio programs to increase ORT awareness.

In 1988, the population communication unit of the Ministry of Information and Broadcasting Services (MIBS) organized workshops on population and child-spacing issues for performing artists. The MIBS felt that both theater and dance events were useful ways to communicate with chiefs, councils of elders, and others. Although the MIBS project was to stage street theater in markets and other public places and to broadcast them on radio and television (Kamphodza, 1988), no documentation of the project outcomes emerged.

**IEC on HIV/AIDS.** IEC activities have succeeded in raising awareness of AIDS (Chirwa *et al.*, 1988). At present, most Zambians (95 percent) have heard of AIDS and know that it is a fatal disease (Gaisie *et al.*, 1993; PSI, 1993). In 1986 formal IEC activities were organized by the MOH and several NGOs to raise HIV/AIDS awareness (Chirwa *et al.*, 1988).

The first major production was a booklet on AIDS for secondary school students, developed by one of the NGOs. It advocates abstinence before marriage and condom use by persons who are already sexually active. The campaign included posters and leaflets in local languages, newspapers articles, radio and television programs, live song, dance, and drama performances in rural areas. There were also efforts to enlist the support of traditional healers. MOH workers and National AIDS Prevention and Control Program (NAPCP) staff members distributed posters and leaflets in bars and hotels to high-risk groups. The content opened a public debate that resulted in most religious groups' withdrawing their criticisms of condom promotion (Mouli, 1992).

During 1988-1989 the MOH launched a US $4 million mass-media AIDS education and prevention campaign. In urban areas the *Times of Zambia* and the *Zambia Daily Mail* carried AIDS educational messages on their front pages. In rural areas people were reached through marketplace performances and primary health care programs. In addition, health workers were extensively trained in counseling AIDS patients and their relatives and how to trace the sexual contacts of HIV-positive people (Kapilikisha, 1990). In 1991, the MOH Health Education Unit engaged the Zambia National Broadcasting Corporation to produce and broadcast a 39-episode, 30-minute weekly radio soap opera called *Nshilakamona* (I have not seen it). The theme reflects public denial of the AIDS epidemic (Chirwa *et al.*, 1991). Broadcasting began in August 1991 and continued for nine months. The drama portrayed two families in Lusaka and their friends. It showed how individuals cope with friendships, economic concerns, sexual relationships, problems related to raising teenagers, and AIDS. The scriptwriters embedded the following messages:

- Everyone is at risk of HIV / AIDS;
- One can prevent HIV / AIDS transmission;
- People should talk with their spouses and children about HIV / AIDS;
- Condoms protect against HIV / AIDS transmission; and
- It is safer to have only one sex partner (Yoder *et al.*, 1993).

Communication analysts point to the carefully planned, coordinated, and evaluated communication activities carried out in 1991 as useful models for future IEC efforts (Chirwa *et al.*, 1991). After pretesting, the soap opera was aired on Sunday evenings at 8. It was produced in Bemba, the most widely spoken Zambian tribal language. At the end of each episode, listeners were told where they could get more information on AIDS. The radio program was promoted with advertisements and feature articles in newspapers. There were also spots, interviews, and discussion programs on radio and television. Programmers encouraged listeners to write to them with questions on the

topic. Two contests elicited more than 2,500 letters to the station from eight of the nine Zambian provinces; some letters were randomly selected to be read and answered on the radio.

An impact evaluation of the *Nshilakamona* radio drama on knowledge and behavior relating to AIDS among Bemba speakers in northern Zambia was conducted. Before and after the radio drama was aired, researchers randomly selected and questioned more than 1,600 men and women, ages 15 to 45, about their knowledge of transmission and prevention of AIDS, condom use, attitudes toward condoms, and behavior related to reducing the risk of HIV transmission. Although it was observed that overall knowledge of AIDS and the importance of taking measures to prevent transmission increased between 1991 and 1992, the proportions of men and women stating that they had sexual partners outside marriage did not decline from the baseline survey to the postcampaign survey. There was, however, an increase in condom use. The evaluators suggested that the increasing knowledge of AIDS in the population of northern Zambia could be attributed to exposure to multiple sources of information over time, including the *Nshilakamona* drama (Yoder *et al*., 1993).

## IEC and Family Planning

Despite the relative lack of systematic and coordinated IEC activities on family planning in the past, there are excellent possibilities for improvement in the future. The existence of the National Population Information, Education, and Communication Programme, 1994-2000 and the formation of the IEC Sub-committee of the ITCP indicates serious interest and commitment to make improvements in this area. The population is relatively urban, educated, and literate as compared with other African nations, making them easier to reach with family planning messages. The liberalization of media policy and legislation has led to an increase in mass media outlets. Improvements in the economy over the past few years eases implementation of IEC activities. Zambia seems to be poised for vast improvements in IEC in the near future.

To maximize and sustain the impact on health programs and strengthen gains in contraceptive use, Zambia will need to increase and coordinate IEC activities for family planning and health, emphasize institutional and human resource capacity building at both the national and local levels, and involve men and young people, as well as women, in culturally appropriate ways.

## Abbreviations

| | |
|---|---|
| AIDS | acquired immune deficiency syndrome |
| ANC | antenatal care |
| BBT | basal body temperature |
| BMI | body mass index |
| CDD | control of diarrheal diseases |
| CPR | contraceptive prevalence rate |
| CYP | couple years protection |
| DANIDA | Danish International Development Agency |
| DHMB | District Health Management Board |
| FLMZ | Family Life Movement of Zambia |
| FLPC | Family Life Promotion Committee |
| FP | family planning |
| FPIA | Family Planning International Assistance |
| FPWAZ | Family Planning and Welfare Association of Zambia |
| GRZ | Government of the Republic of Zambia |
| HEU | Health Education Unit |
| HIV | human immunodeficiency virus |
| IEC | information, education, and communication |
| IFFLP | International Federation for Family Life Promotion |
| ILO | International Labor Organization |
| IMR | infant mortality rate |
| IPPF | International Planned Parenthood Federation |
| ITCP | Inter-agency Technical Committee on Population |
| IUD | intrauterine device |
| JHU/CCP | Johns Hopkins Center for Communication Programs |
| JHU/PCS | Johns Hopkins Population Communication Services |
| MCH | mother and child health |
| MMR | maternal mortality ratio |
| MOH | Ministry of Health |
| MVA | manual vacuum aspiration |

| | |
|---|---|
| NA | not applicable |
| NAPCP | National AIDS Prevention and Control Program |
| NFP | natural family planning |
| NGO | nongovernmental organization |
| NORAD | Norwegian Overseas AIDS Development |
| OC | oral contraceptives |
| ODA | Overseas Development Administration |
| ORT | oral rehydration therapy |
| PPAZ | Planned Parenthood Association of Zambia |
| PSI | Population Services International |
| PSZ | Pharmaceutical Society of Zambia |
| REM | Rapid Evaluation Methodology of MCH/FP in Zambia |
| SIDA | Swedish International Development Agency |
| SMI | Safe Motherhood Initiative |
| STD | sexually transmitted disease |
| TBA | traditional birth attendant |
| TFR | total fertility rate |
| TWF | total wanted fertility |
| UNESCO | United Nations Educational, Scientific, and Cultural Organization |
| UNDP | United Nations Development Programs |
| UNFPA | United Nations Population Fund |
| UNICEF | United Nations International Children's Fund |
| UNIP | United National Independence Party |
| USAID | United States Agency for International Development |
| U.S. State Dept. | United States Department of State |
| UTH | University Teaching Hospital |
| WHO | World Health Organization |
| ZDHS | Zambia Demographic and Health Survey |
| ZIS | Zambia Information System |

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