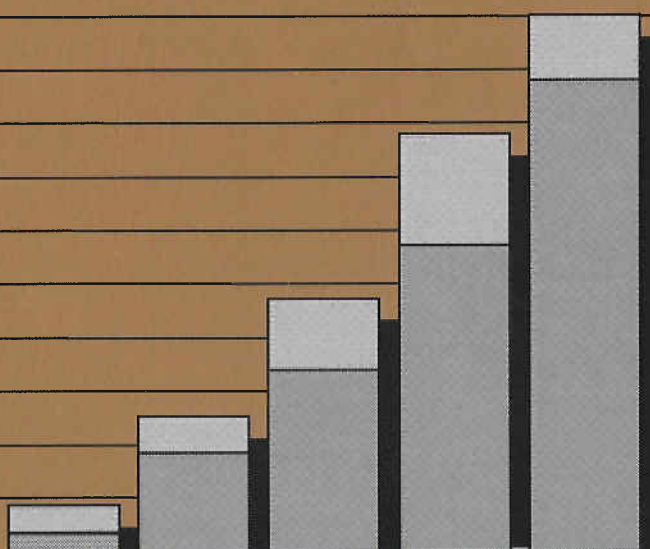


# Zambia



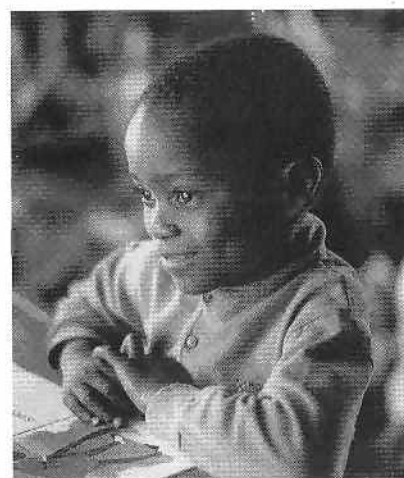
## Demographic and Health Survey 1996

SUMMARY REPORT

# ZAMBIA DEMOGRAPHIC AND HEALTH SURVEY 1996

## SUMMARY REPORT

<b>Background .....</b>	<b>3</b>
<b>Fertility .....</b>	<b>4</b>
Fertility Levels and Trends .....	4
Marriage and Exposure to Risk of Pregnancy .....	6
Fertility Preferences .....	7
<b>Family Planning .....</b>	<b>8</b>
Knowledge and Use of Contraception .....	8
Unmet Need for Family Planning Services .....	10
<b>Maternal and Child Health .....</b>	<b>11</b>
Maternity Care .....	11
Childhood Immunisations .....	12
Treatment of Childhood Diseases .....	13
Infant Feeding Practices .....	13
Nutritional Status of Children .....	14
Infant and Child Mortality .....	15
<b>AIDS-Related Knowledge and Behaviour .....</b>	<b>16</b>
<b>Conclusions .....</b>	<b>17</b>
<b>Fact Sheet .....</b>	<b>19</b>



Central Statistical Office  
P.O. Box 31908  
Lusaka, Zambia

September 1997

*Photographs: UNICEF/Pirozzi*

This report summarises the findings of the 1996 Zambia Demographic and Health Survey (ZDHS) conducted by the Central Statistical Office. Macro International Inc. provided technical assistance. Funding was provided by the U.S. Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the Swedish International Development Agency (SIDA) and the Government of Zambia.

The ZDHS is part of the worldwide Demographic and Health Surveys (DHS) programme, which is designed to collect data on fertility, family planning, and maternal and child health. Additional information about the ZDHS may be obtained from the Central Statistical Office, P.O. Box 31908, Lusaka, Zambia (Telephone: 251-377/380/381/385, 252-575, 250-195; Fax: 253-528). Additional information about the DHS programme may be obtained by writing to: DHS, Macro International Inc., 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (Telephone: 301-572-0200; Fax: 301-572-0999; E-mail: [reports@macroint.com](mailto:reports@macroint.com); Internet: <http://www.macroint.com/dhs/>).

## Background

The Zambia Demographic and Health Survey (ZDHS) is a nationally representative survey of 8,021 women age 15-49 and 1,849 men age 15-59. Fieldwork for the ZDHS took place from mid-July 1996 until early January 1997. The survey is a follow-up to the 1992 ZDHS.

As in the 1992 ZDHS, the main purpose of the 1996 ZDHS is to provide policymakers and planners with detailed information on fertility, infant and child mortality, family planning, and maternal and child health and nutrition. In addition, the 1996 ZDHS included questions to measure maternal mortality, as well as a special questionnaire for men.

The ZDHS was implemented by the Central Statistical Office at the request of the Ministry of Health. Macro International Inc. provided financial and technical assistance to the project through the international Demographic and Health Surveys (DHS) programme funded by the U.S. Agency for International Development (USAID). Additional funding was provided by the United Nations Population Fund (UNFPA), the Swedish International Development Agency (SIDA) and the Government of Zambia.

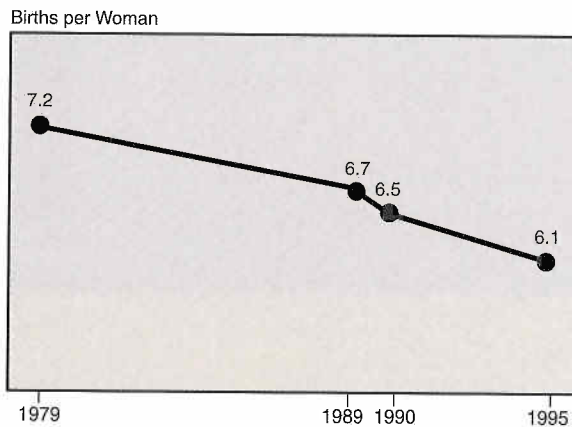


## Fertility

### Fertility Levels and Trends

The 1996 ZDHS survey results indicate that the level of fertility in Zambia is continuing to decline. At current fertility levels, a Zambian woman will give birth to an average of 6.1 children during her reproductive period, a decline from the level of 6.5 prevailing during the late 1980s and early 1990s. Despite the decline, fertility in Zambia remains one of the highest in sub-Saharan Africa. Results from

**Figure 1**  
Trends in Fertility Rates, 1979-1995 (Women 15-49)

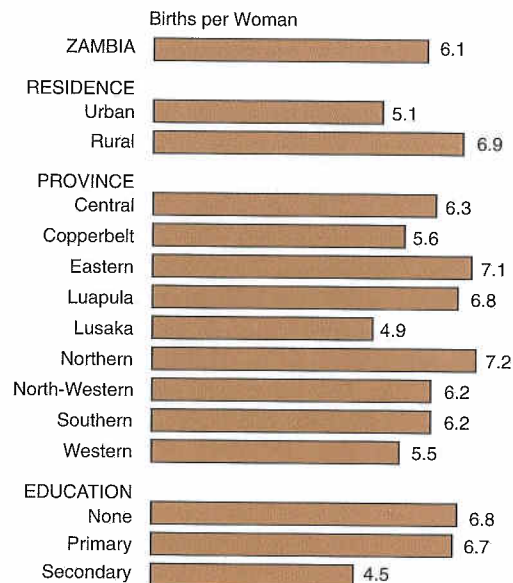


*Fertility rates have been declining in Zambia, from a level of 7.2 births per woman in 1979 to 6.1 in 1995.*

DHS surveys in neighbouring countries show that the fertility level in Botswana is 4.9 births per woman, in Namibia 5.4, in Tanzania 5.8 and in Zimbabwe 4.3 births per woman.

*At current fertility levels, a Zambian woman will give birth to 6.1 children during her reproductive years.*

**Figure 2**  
Total Fertility Rates by Background Characteristics (Women 15-49)



*Although fertility is high in Zambia, it is considerably lower among urban women and better educated women than among rural and less educated women.*



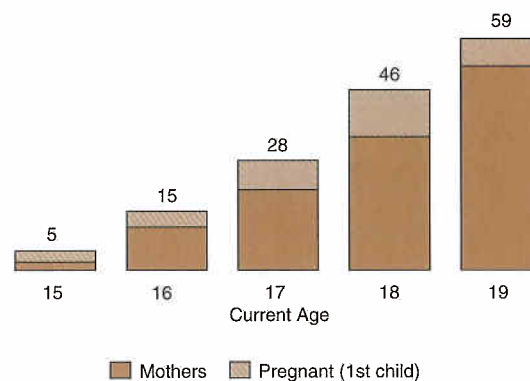
Some women are apparently leading the fertility decline. For example, fertility levels are substantially lower among urban women (5.1 children per woman on average) than among rural women (6.9 children). Moreover, women who have received some secondary education have the lowest level of fertility, with a total fertility rate of 4.5, compared to a rate of 6.8 children per woman for those with either no education or with only primary education, a difference of more than two children.

Childbearing begins early in Zambia. Almost one in three teenage women (age 15-19) has begun childbearing, with 24 percent having had a child already and 7 percent carrying their first child. By the time they reach age 19, almost 60 percent of women have begun childbearing. Adolescent childbearing seems to be declining somewhat—in 1992, 34 percent of teenagers either had already given birth or were pregnant with their first child, compared to 31 percent in 1996.



*By the time they reach age 19, almost 60 percent of Zambian women have either given birth or are pregnant with their first child.*

**Figure 3**  
Adolescents Who Are Mothers or Pregnant with the First Child (Women 15-19)



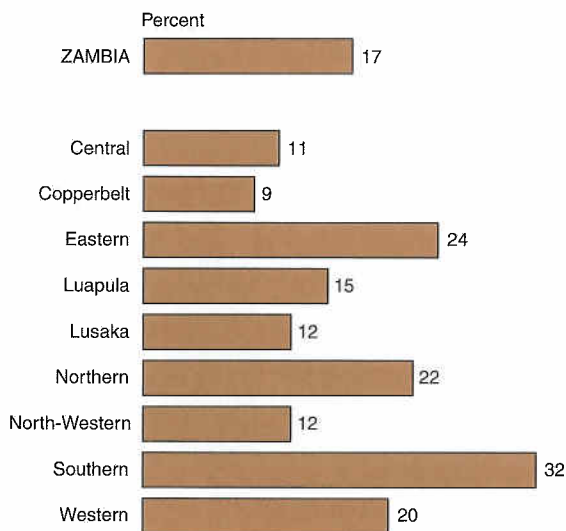
*Childbearing begins very early; 31 percent of all teenagers have either given birth or are pregnant with their first child.*

### Marriage and Exposure to the Risk of Pregnancy

Women in Zambia marry young—half are married before reaching age 18. Survey data show that women are marrying at slightly older ages than they did a few years ago. Men generally marry about 6 years later than women, with a median age at marriage of almost 24.

Women with secondary education generally marry four years later (21) than women with no education (17). Urban women marry later than rural women (18 vs. 17).

**Figure 4**  
Polygyny by Province  
(Currently Married Women 15-19)



*Polygynous marriages are more common in Southern and Eastern Provinces.*

*Half of women in Zambia marry before the age of 18.*

Seventeen percent of currently married women are in polygynous unions. Polygyny is higher among older and less educated women. It is also more common among women in Southern, Eastern and Northern Provinces.

The median age at first sexual intercourse is between 16 and 17 years for women and men. Just over half of the women and men interviewed said they had been sexually active in the four weeks before the survey.



### Fertility Preferences

Survey findings indicate that there is a preference for large families in Zambian society. Moreover, men are considerably more pronatalist than women. Among those with six or more children, 22 percent of married women want to have more children, compared with 44 percent of married men.

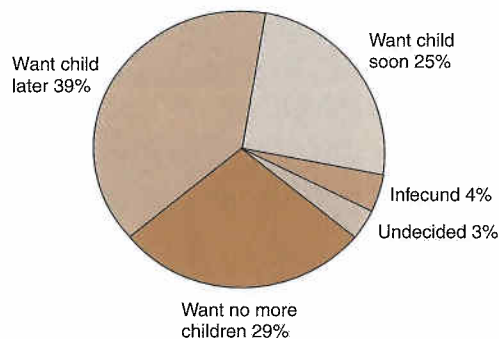
More than half (56 percent) of all women report five or more children as ideal and another 23 percent want to have four children. Only 7 percent of women report a two-child family as ideal. Overall, women report a mean ideal number of children of 5.3, compared with 5.9 for men.

Despite the high fertility preferences, there has been a decline in ideal family size among women in Zambia, from an average of 5.8 children in 1992 to 5.3 in 1996. Women's desire for additional children has also declined somewhat over the past 5 years. The proportion of women who want no more children increased from 24 percent in 1992 to 29 percent in 1996.

Unplanned pregnancies are still common in Zambia. More than one-third of births are unplanned—29 percent are mistimed (wanted later) and 7 percent are unwanted. If unwanted births could be eliminated altogether, the total fertility rate in Zambia would be 5.2 births per woman instead of the actual level of 6.1.

*Women report an average ideal family size of 5.3, compared with 5.9 for men.*

**Figure 5**  
**Fertility Preferences**  
**(Currently Married Women 15-49)**



Note: "Want no more" includes sterilised women.

*Over two-thirds of currently married women either want no more children or want to wait at least two years before having another child.*

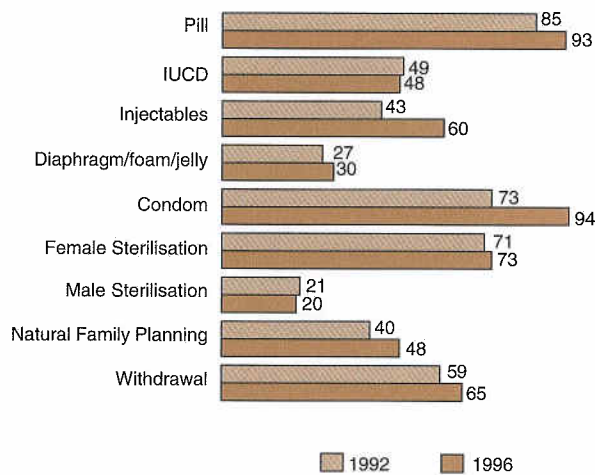


## Family Planning

### Knowledge and Use of Contraception

Knowledge of contraceptive methods is nearly universal, with 98 percent of married women and men knowing at least one method of family planning. Knowledge of at least one contraceptive method has increased since 1992, from 94 to 98 percent of married women.

**Figure 6**  
Trends in Knowledge of Contraceptive Methods, 1992-96  
(Currently Married Women 15-49)



*The percentage of married women who have heard of methods such as injectables and condoms has increased significantly since 1992.*

There has also been an increase over the last 5 years in the proportion of women who know specific family planning methods. For example, the proportion of married women who have heard of condoms has increased from 73 percent in 1992 to 94 percent in 1996 and the proportion who have heard of injectables increased from 43 percent to 60 percent during the same period.

One reason for the increase in the level of contraceptive awareness is that family planning messages are prevalent. Over 40 percent of the women and over half of the men interviewed had heard a family planning message in the months prior to the survey, mostly on radio.

Twenty-six percent of married women in Zambia are now using a contraceptive method, a significant increase from 15 percent in 1992. Use of modern methods has increased from 9 percent of married women in 1992 to 14 percent in 1996, while use of traditional methods increased from 6 to 12 percent.

---

*Twenty-six percent of currently married women are now using some method of family planning.*

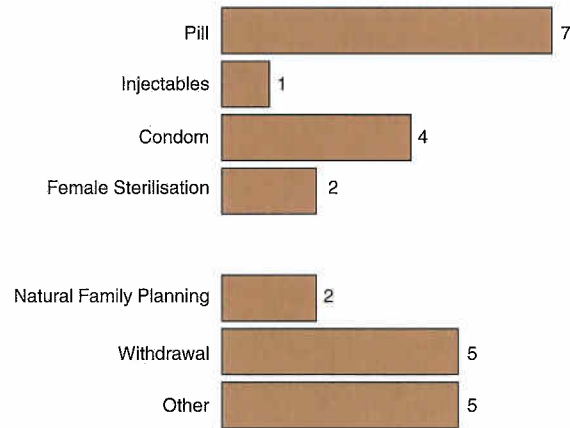
The pill is the most widely used method (7 percent of married women), followed by withdrawal (5 percent) and condoms (4 percent).

Differentials in current use of family planning by province are large. Forty-two percent of married women in North-Western Province are currently using a contraceptive method, compared with only 11 percent of those in Luapula Province. However, most users in North-Western Province are using traditional methods; Lusaka and Copperbelt Provinces have the highest levels of use of modern methods. There are large differentials in current use by level of education. Only 17 percent of currently married women with no formal education are currently using a method, compared with 55 percent of those with higher than secondary education.

---

*Contraceptive use varies greatly by region, from 11 percent of married women in Luapula Province to 42 percent of those in North-Western Province.*

**Figure 7**  
**Use of Specific Contraceptive Methods**  
**(Currently Married Women 15-49)**

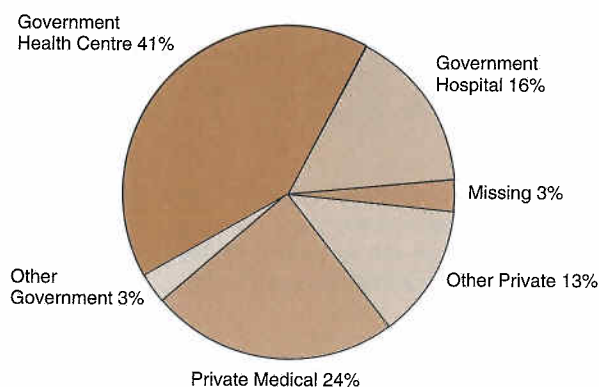


*Of the 26 percent of married women who are currently using a contraceptive method, about half (14 percent) use modern methods and half (12 percent) use traditional methods.*



Six in ten users obtain their methods from public sources, while 24 percent use non-governmental medical sources and shops and friends account for the remaining 13 percent. Government health centres (41 percent) and government hospitals (16 percent) are the most common sources of contraceptive methods.

**Figure 8**  
Current Users of Modern Contraceptive Methods by Source of Supply



*Six in ten current users obtain their methods from public sources (mainly government health centres), while 24 percent use non-governmental medical sources (mostly private hospitals and clinics) and the remaining 13 percent use other private sources such as shops.*

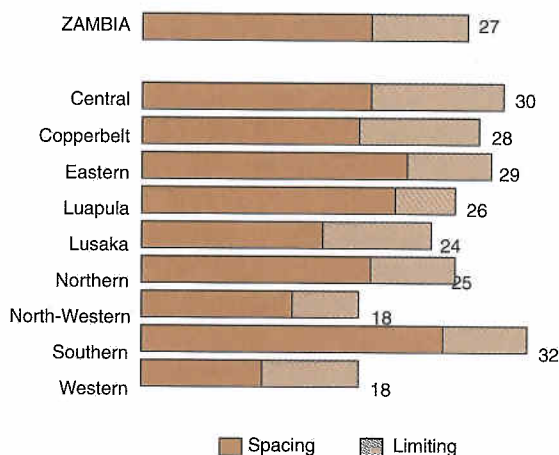
### Unmet Need for Family Planning Services

ZDHS data show that there is considerable unmet need for family planning services in Zambia. Overall, 27 percent of married women are in need of services—19 percent for spacing their next birth and 8 percent for limiting births.

*Over one-quarter of currently married women in Zambia have an unmet need for family planning.*

If all women who say they want to space or limit their children were to use methods, the contraceptive use rate would be increased from 26 to 52 percent of married women. Currently, less than half of this “total demand” for family planning is being met.

**Figure 9**  
Unmet Need for Family Planning by Province



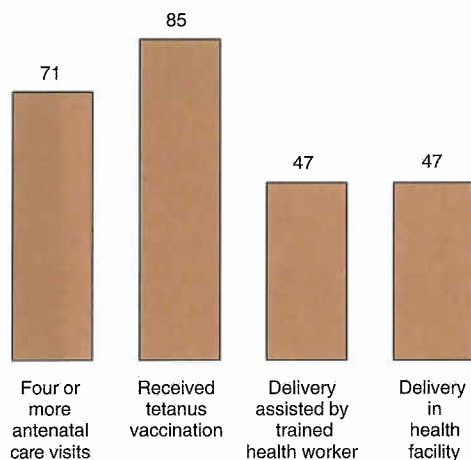
*Unmet need for family planning services is fairly uniform across provinces; approximately two-thirds of need is for spacing births and one-third for stopping childbearing.*

## Maternal and Child Health

### Maternity Care

ZDHS data show some encouraging results regarding maternal health care, as well as to some areas in which improvements could be made. Results show that most Zambian mothers receive antenatal care, 3 percent from a doctor and 93 percent from a nurse or trained midwife. Similarly, tetanus toxoid coverage is relatively widespread in Zambia; for 85 percent of births in the five years before the survey, the mothers received at least one tetanus toxoid injection during pregnancy.

**Figure 10**  
Antenatal Care and Delivery Care  
(Births in the Preceding 4 Years)



*Seven in ten pregnant women have at least 4 antenatal care visits and eight in ten receive at least one tetanus toxoid vaccination, yet only half of births occur in a health facility with trained medical assistance.*

Less encouraging is the fact that more than half of births still occur at home and consequently, less than half are assisted by trained medical personnel. Proper medical attention during pregnancy and hygienic conditions during delivery can reduce the risk of complications and infections that can cause death or serious illness for either the mother or the newborn. There has been little change in these maternal health indicators since 1992.

---

*Utilisation of antenatal services is high; mothers receive antenatal care for 96 percent of births.*





Pregnancy and childbearing can be life-threatening for Zambian women. For the decade before the survey, the maternal mortality ratio was estimated to be 649 maternal deaths per 100,000 births.

---

*The maternal mortality ratio in Zambia is 649 deaths per 100,000 births.*

### **Childhood Immunisations**

Vaccination coverage against the most common childhood illnesses has increased recently. The proportion of children age 12-23 months who are considered to be fully immunised has increased from 67 in 1992 to 78 percent in 1996. Only 2 percent of children 12-23 months have not received any vaccinations.

---

*Survey results show that 78 percent of children age 12-23 months are fully vaccinated.*





### Treatment of Childhood Diseases

ZDHS data indicate that Zambian mothers are reasonably well-informed about childhood illnesses and that a high proportion are treated appropriately. For example, 71 percent of children with symptoms of respiratory illness during the two weeks before the survey were taken to a health facility or health care provider for treatment. Over half of children with diarrhoea during the same period received some type of oral rehydration therapy (fluid made from an ORS packet or a homemade solution). Ninety-four percent of mothers know about the use of sugar-salt-water solutions for treating diarrhoea; yet when asked about specific eating and drinking regimes for sick children, only three-quarters say that a child who is sick with diarrhoea should get more to drink.

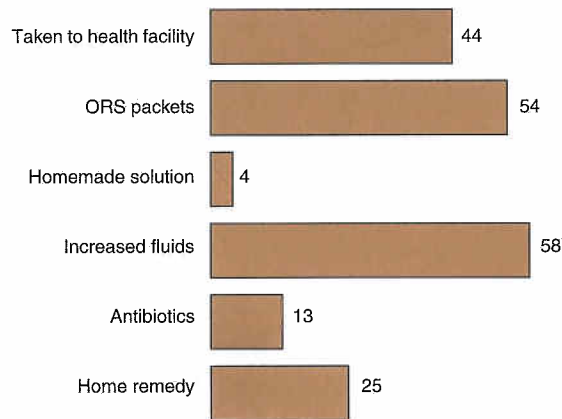
---

*Over half of children under five are treated with some type of oral rehydration therapy when they have diarrhoea.*

### Infant Feeding Practices

The ZDHS results indicate that breastfeeding is almost universally practised in Zambia, with a median duration of 20 months. Since breastfeeding has beneficial effects on both the child and the mother, it is encouraging to note that supplementation of breast milk starts relatively late in Zambia. In the first two months, only 11 percent of children have received supplements other than water and breast milk. However, by 4-5 months, 77 percent of children are given some form of food supplementation. Also encouraging is the fact that there is negligible use of infant formula and that bottlefeeding is not commonly practised.

**Figure 11**  
**Treatment of Diarrhoea**  
**(Children Under Age 5)**



*Over half of children with diarrhoea are treated with oral rehydration solution made from packets or with some sort of increased fluid intake.*

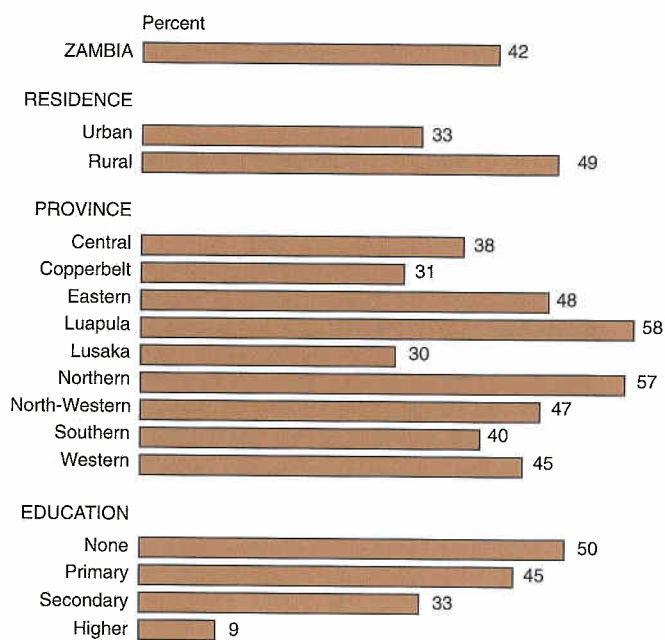
### Nutritional Status of Children

Overall, 42 percent of Zambian children under age five are classified as stunted (low height-for-age) and 18 percent as severely stunted. Four percent of children under five in Zambia are wasted (low weight-for-height). Comparison with the 1992 ZDHS shows little change in these measures over time.

*Forty-two percent of children under age five are short for their age (stunted), which reflects chronic malnutrition.*



**Figure 12**  
Prevalence of Stunting  
by Background Characteristics  
(Children Under 5 Years)

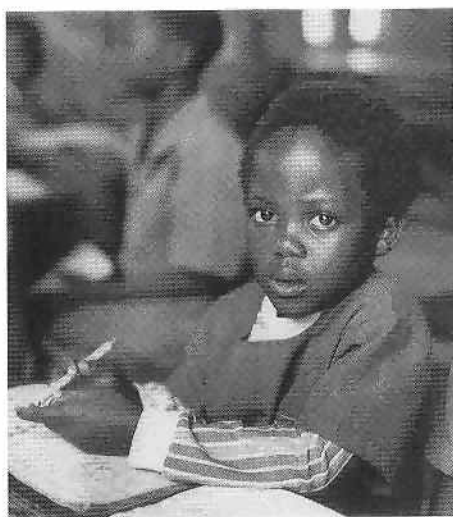


*Stunting, which reflects chronic undernutrition, is highest among rural children and those in Luapula and Northern Provinces, as well as children whose mothers are less educated.*

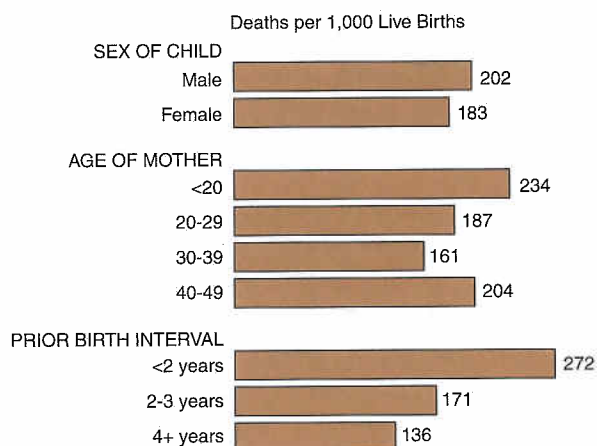
### Infant and Child Mortality

One of the more disturbing findings from the survey is that child survival has not improved over the past few years. Currently, the infant mortality rate is 109 deaths per 1,000 births and under-five mortality is 197 per 1,000 births, a slight increase from the rates of 107 and 191, respectively, that were derived from the 1992 ZDHS. Under-five mortality rates are highest in Luapula and Eastern Provinces, where approximately one in four children does not live to the fifth birthday.

*One in five children born in Zambia dies before reaching his/her fifth birthday.*



**Figure 13**  
Under-Five Mortality by Selected Characteristics



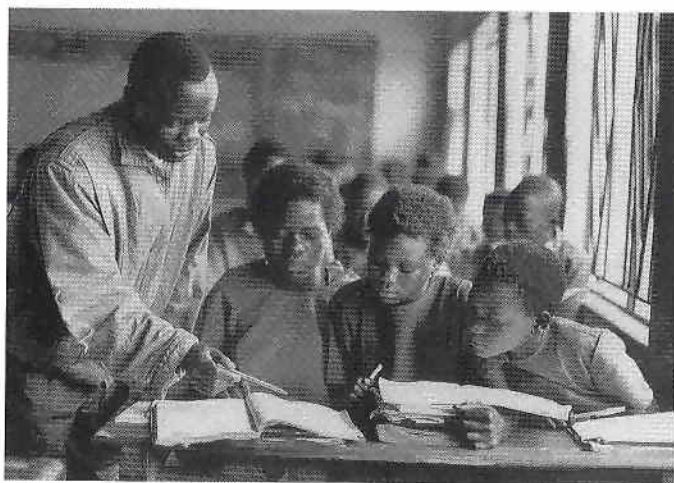
Note: Rates are for the 10-year period preceding the survey.

*Children born to young mothers (under age 20) and those born after a short birth interval (less than two years) are subject to much higher mortality rates than those born to older mothers and after longer birth intervals.*

## AIDS-Related Knowledge and Behaviour

Survey results indicate that virtually all respondents have heard of AIDS. Common sources of information were friends and relatives and the radio.

The vast majority of respondents—80 percent of women and 94 percent of men—say they have changed their behaviour in order to avoid contracting AIDS, mostly by restricting themselves to one sexual partner.



Although almost all respondents say they know about the condom, only one-quarter of women and about half of men used condoms at some time during the 12 months prior to the survey. Most respondents say they use condoms both for family planning and for disease prevention. The practice of giving money, gifts or favours in exchange for sex is not uncommon in Zambia—11 percent of women and 24 percent of men say they have engaged in this in the 12 months before the survey.

---

*All respondents have heard about AIDS and the vast majority say they have changed their behaviour in order to avoid getting it, mostly by restricting the number of sexual partners.*



## Conclusions

### Fertility and Family Planning

Survey data show that fertility levels have begun to fall in Zambia, mainly due to increased use of family planning methods. Use of contraceptive methods has increased sharply since 1992. Today, all married women and men have heard of at least one family planning method, three-fifths of women have used a method at some time, and 26 percent of married women are currently using a method.

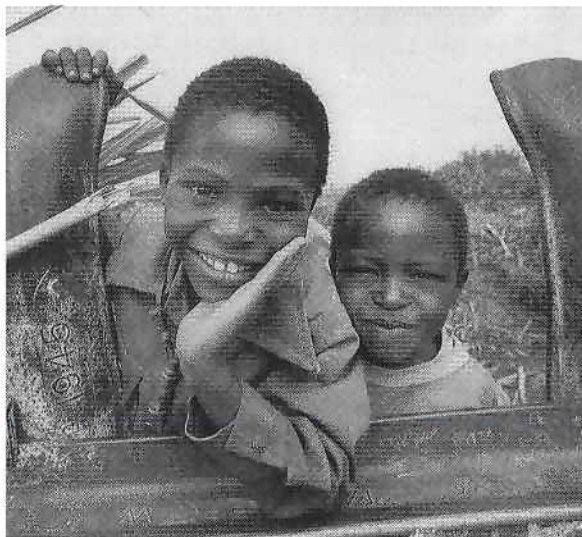
Despite these encouraging trends, there are a number of continuing challenges. One is that fertility preferences remain high; on average, women and men think that the ideal family consists of over five children.

Another challenge is to further reduce the level of adolescent fertility. One-third of girls age 15-19 have already given birth or are pregnant with their first baby. Increasing the age at which childbearing begins results in lower fertility even if women eventually have the same number of children in their lifetime, because the generational cycle is longer. It also has a beneficiary effect on general health, since early childbearing is associated with higher maternal and child mortality and illness.

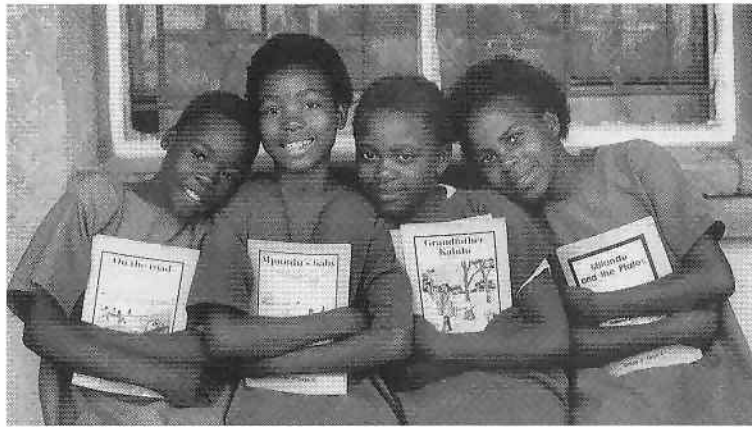
### Maternal and Child Health

The results from the ZDHS regarding key maternal health indicators are mixed. Antenatal care and tetanus toxoid vaccination for pregnant women are both widespread. However, home deliveries with medically untrained assistance are still common. Expanding delivery care services would reduce the proportion of women who deliver their babies at home with no medical assistance and would probably result in a lowering of the high level of maternal mortality.

The results for key child survival indicators are also mixed. On one hand, childhood immunisation coverage has improved considerably since 1992. However, this improvement has evidently not affected children's chances of survival; survey data show that child survival has not improved in recent years, with one in five children dying before reaching age five. There has also been little change since 1992 in the high proportion of children who are malnourished.







## Fact Sheet

### 1990 Population Data<sup>1</sup>

Total population (millions) .....	7.8
Urban population (percent) .....	38.0
Annual intercensal population growth (percent) .....	3.1
Population doubling time (years) .....	22
Crude birth rate (per 1,000 population) .....	44
Crude death rate (per 1,000 population) .....	18
Life expectancy at birth (years) .....	44

### Zambia Demographic and Health Survey 1996

#### Sample Population

Women age 15-49 .....	8,021
Men age 15-59 .....	1,849

#### Background Characteristics of Women Interviewed

Percent urban .....	44.9
Percent with no education .....	13.3
Percent attended secondary school or higher .....	27.8

#### Marriage and Other Fertility Determinants

Percent of women 15-49 currently married .....	61.1
Percent of women 15-49 ever married .....	74.7
Median age at first marriage among women age 20-49 .....	18.0
Median duration of breastfeeding (months) <sup>2</sup> .....	20.0
Median duration of postpartum amenorrhoea (months) <sup>2</sup> .....	11.5
Median duration of postpartum abstinence (months) <sup>2</sup> .....	4.7

#### Fertility

Total fertility rate <sup>3</sup> .....	6.1
Mean number of children ever born to women age 40-49 .....	7.3

#### Desire for Children

Percent of currently married women who:	
Want no more children <sup>4</sup> .....	28.5
Want to delay their next birth at least 2 years .....	38.8
Mean ideal number of children among women 15-49 <sup>5</sup> .....	5.3
Percent of births in the last 5 years that were:	
Unwanted .....	6.5
Mistimed .....	29.2

#### Knowledge and Use of Family Planning

Percent of currently married women who:	
Know any method .....	98.4
Know a modern method .....	97.7
Have ever used any method .....	59.4
Are currently using any method .....	25.9
Are currently using a modern method .....	14.4
Percent of currently married women currently using:	
Pill .....	7.2
IUD .....	0.4
Injectables .....	1.0
Condom .....	3.5
Female sterilisation .....	2.0
Male sterilisation .....	0.0
Periodic abstinence/natural family planning .....	1.9
Withdrawal .....	4.5
Other methods .....	5.2

#### Mortality and Health

Infant mortality rate <sup>6</sup> .....	109
Under-five mortality rate <sup>6</sup> .....	197
Maternal mortality ratio <sup>7</sup> .....	649
Percent of births <sup>8</sup> to mothers who:	
Received antenatal care from medical provider .....	95.6
Received 2 or more tetanus toxoid injections <sup>9</sup> .....	36.6
Percent of births <sup>8</sup> to mothers who were assisted at delivery by:	
Doctor .....	3.6
Nurse/Trained midwife .....	42.9
Traditional birth attendant .....	5.4
Relative/Other .....	41.1
Percent of children 0-3 months who are breastfeeding .....	99.6
Percent of children 10-11 months who are breastfeeding .....	96.3
Percent of children 0-3 months who are exclusively breastfeeding .....	
Percent of children 12-23 months who received: <sup>10</sup>	
BCG .....	97.4
DPT (three doses) .....	85.7
Polio (three doses) .....	84.4
Measles .....	86.5
All vaccinations .....	78.3
Percent of children under 5 years who:	
Had diarrhoea in the 2 weeks preceding the survey .....	23.5
Had a cough accompanied by short, rapid breathing in the 2 weeks preceding the survey .....	
Are chronically malnourished (stunted) <sup>11</sup> .....	42.4
Are acutely malnourished (wasted) <sup>11</sup> .....	4.2

- 1 Based on 1990 national census data (Central Statistical Office. 1990. 1990 Census of Population, Housing and Agriculture Preliminary Report. Central Statistical Office, Lusaka)
- 2 Current status estimate based on births during the 36 months preceding the survey
- 3 Based on births to women 15-49 years during the period 0-2 years preceding the survey
- 4 Includes sterilised women
- 5 Excludes the 5 percent of women who gave a non-numeric response to ideal family size
- 6 Rates for the period 0-4 years preceding the survey (roughly 1992 to 1996); expressed as deaths per 1,000 live births
- 7 Ratio for the period 0-9 years preceding the survey; expressed as maternal deaths per 100,000 live births
- 8 Figure includes births in the period 1-59 months preceding the survey
- 9 Refers to injections received during pregnancy
- 10 Based on information from vaccination cards and mothers' reports
- 11 Stunting assessed by height-for-age, wasting assessed by weight-for-height; percent malnourished are those below -2 SD from the median of the international reference population, as defined by the U.S. National Centre for Health Statistics, and recommended by the World Health Organisation.