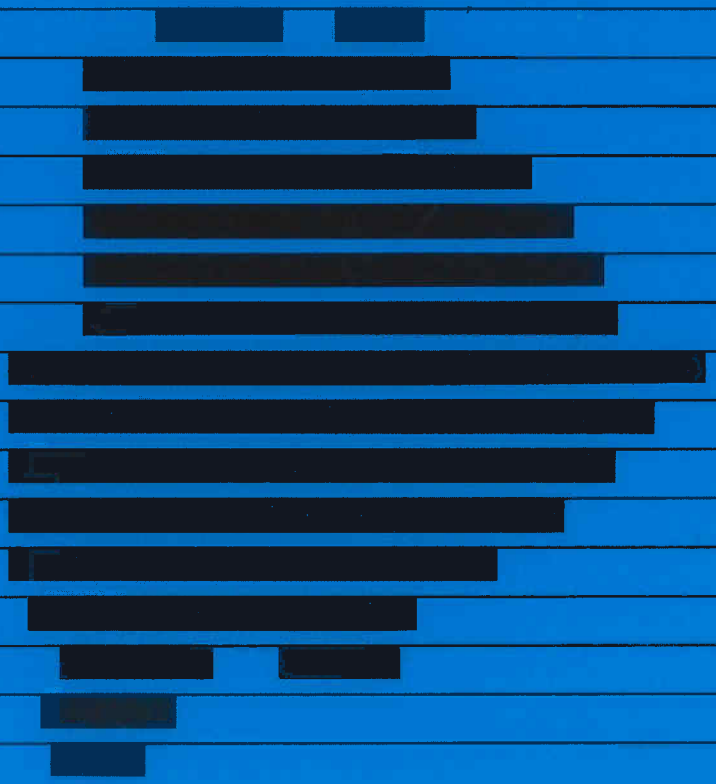
DHS

Botswana



Demographic and Health Survey 1988

SUMMARY REPORT

BOTSWANA DEMOGRAPHIC AND HEALTH SURVEY 1988

SUMMARY REPORT

PRB/VAN DER TAK

Central Statistics Office
Ministry of Finance and Development Planning
Gabarone, Botswana

November 1989

This report summarises the findings of the Botswana Family Health Survey II (BFHS-II), implemented by the Government of Botswana, through the Family Health Division of the Ministry of Health and the Central Statistics Office of the Ministry of Finance and Development Planning in 1988. The survey is part of the worldwide Demographic and Health Surveys (DHS) program, which is designed to collect data on fertility, family planning, and maternal and child health. Additional information on the survey can be obtained from the Central Statistics Office, Ministry of Finance and Development Planning, Private Bag 0024, Gabarone, Botswana or the Family Health Division, Ministry of Health, P.O. Box 992, Gaborone, Botswana.

The Botswana Family Health Survey II was carried out with the assistance of the Institute for Resource Development (IRD), a Macro Systems company with headquarters in Columbia, Maryland. Funding for the survey was provided by the U.S. Agency for International Development (Contract No. DPE-3023-C-00-4083-00). Additional information about the DHS program can be obtained by writing to: DHS Program, IRD/Macro Systems, Inc., 8850 Stanford Boulevard, Suite 4000, Columbia, MD 21045, USA (Telephone:301-290-2800, Fax:301-290-2999, Telex:87775).

Executive Summary

The results of the 1988 Botswana Family Health Survey (BFHS-II) indicate that in the past five years considerable progress has been made in the areas of family planning and health. Most importantly, due to increased use of family planning methods and the continuation of traditional practices of breastfeeding and abstinence from sexual relations following a birth, fertility has decreased among Batswana women. In the area of maternal and child health, infant and childhood mortality have declined and the number of women receiving medical care during pregnancy and childbirth has increased. Immunisation programs have been effective in reaching most young children and oral rehydration therapy (ORT) is commonly used to treat diarrhoea in children. The BFHS-II findings indicate that although some segments of the population continue to be in need of services (e.g., women with little or no education, teenagers, and women in rural areas), overall, the family health picture in Botswana has improved significantly.

Family health in Botswana has improved significantly in the past five years.

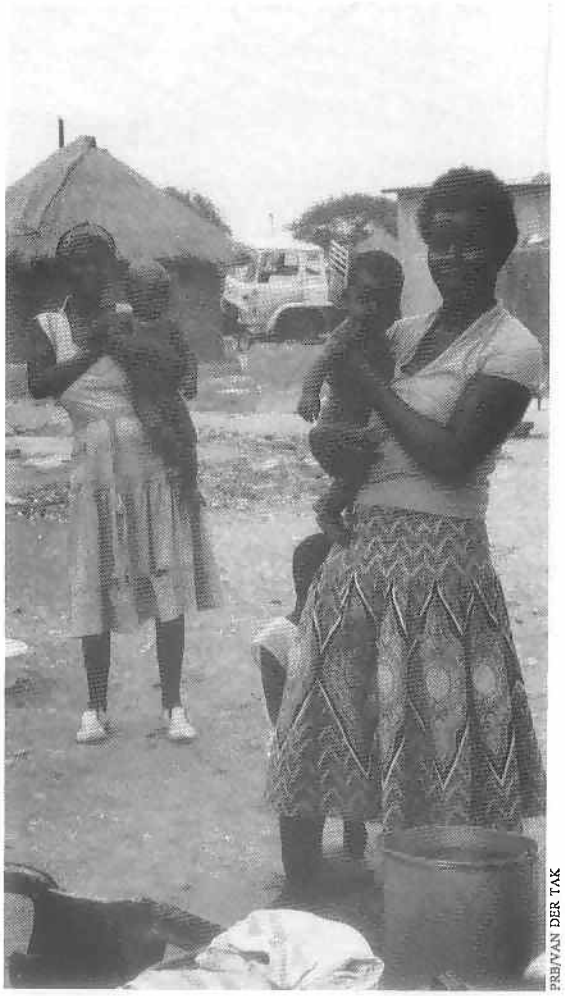


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Figure 1
Total Fertility Rate
By Residence and Education

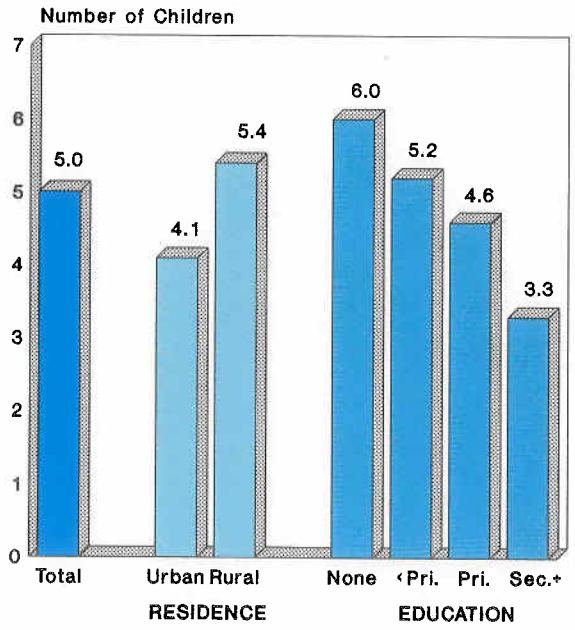
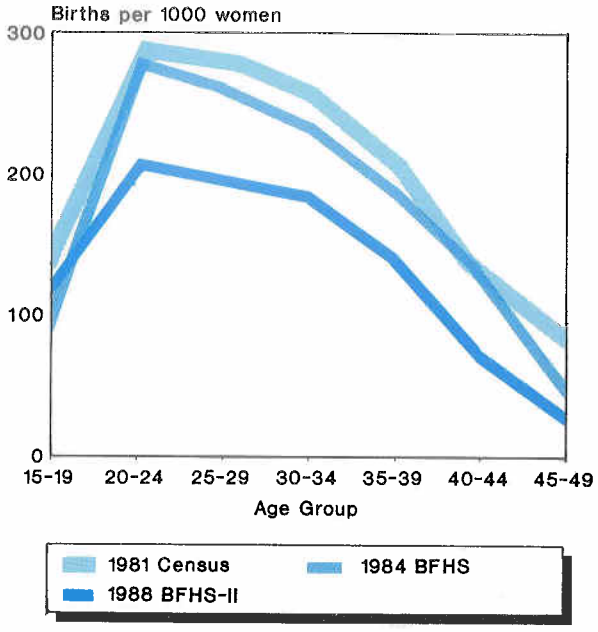


Figure 2
Age-Specific Fertility Rates 1981
Census, 1984 BFHS, and 1988 BFHS-II



Fertility

Demographic Factors

Although fertility levels remain high, there has been a significant decline in recent years due to increased use of family planning methods.

- The total fertility rate for the five-year period prior to the survey indicates that the average woman, beginning her reproductive period at this time, will have 5 births by her 50th birthday.
- A comparison of the fertility data from the census, the BFHS and the BFHS-II shows that total fertility declined 30 percent in less than ten years--from 7.1 in 1981 to 6.5 in 1984 to 5.0 in 1988.

The average woman will have five births during her childbearing years.

- There are large differences in fertility by education: current fertility rates indicate that women with secondary or higher education can expect to have a total of 3.3 births in their lifetime while women with no education will have 6 births.
- Fertility decline is occurring in the context of increasing use of modern family planning methods. Data on fertility trends show that fertility began to decline 10-15 years before the survey, which coincides with the introduction of the family planning programme in 1973.
- Declining fertility among women at all education levels coupled with the growing number of women achieving higher levels of education may account for the rapid decline in fertility.

Breastfeeding and Post-partum Abstinence

The traditional practices of breastfeeding and post-partum abstinence continue to play an important role in protecting women from a subsequent pregnancy. However, there is evidence from the BFHS-II that the duration of these practices is decreasing among urban women.

- On average, women breastfeed for 19 months, resumption of menstruation is delayed for 12 months following childbirth, and sexual relations are delayed for 13 months.
- Taking into account the effects of both post-partum amenorrhea and abstinence, a woman is not at risk of pregnancy for an average of nearly 16 months following a birth.
- The duration of breastfeeding and protection from pregnancy because of post-partum amenorrhea or abstinence from sexual relations is five months shorter for urban women than for rural. The survey indicates that the number of months of breastfeeding has declined among urban women since 1984.

On average, women in rural areas breastfeed their children five months longer than women in urban areas.

Figure 3
Mean Duration of Breastfeeding, Amenorrhea and Post-partum Abstinence

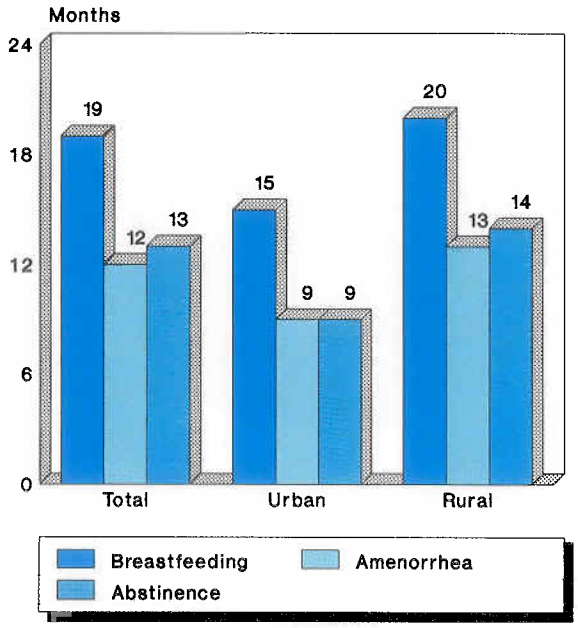
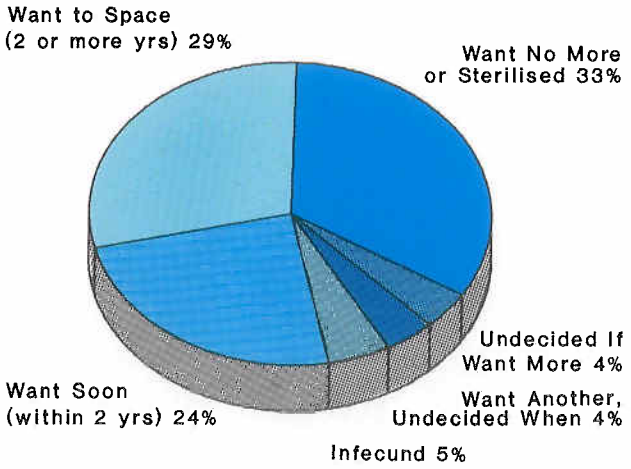


Figure 4
Fertility Preferences
(Women in Union 15-49)



Twenty-nine percent of women in union want to wait at least two years before their next birth. Thirty-three percent want no more children.

Fertility Preferences

Interest in spacing births has grown among Batswana women despite a continued preference for large families.

- The importance of spacing births at least two years apart is widely recognised. In the BFHS-II, 29 percent of women in union wanted to wait at least two years before their next birth compared with 21 percent in 1984.
- The use of contraception to delay a first birth and to space a second or third birth is common among younger women; one-half of women 20-24 at the time of the survey first used family planning before their first or second birth.
- The proportion of women in union who do not want any more children, 33 percent, is unchanged from the 1984 BFHS.
- Three-quarters of women said the ideal family was 4 or more children and 3 in 10 women expressed a preference for 6 or more children.
- The BFHS-II found that few Batswana women have unwanted births. If all the unwanted births in the five years before the survey had been prevented, the current fertility rate would be only 6 percent lower.

Teenage Pregnancy

At the time of the survey nearly one-quarter of teenagers were already mothers and an additional 5 percent were pregnant with their first child. Since pregnancy during adolescence places the health of teenagers and their babies at risk, the Government of Botswana encourages women to wait until age 20 to have their first pregnancy.

- The proportion of teenagers who are mothers increased from 15 percent in 1971 to 24 percent in 1988.
- Among teenagers who became pregnant, the average age at first pregnancy was 16 years.
- Four in 10 teenage women with no education had at least one birth compared with less than 2 in 10 teenagers with secondary or higher education.
- Two-thirds of teenagers who did not use a method of contraception when they first had sexual intercourse said it was because they did not know about family planning.
- One-third of teenagers who became pregnant (9 percent of all teenage women) left school because of pregnancy. Only one-fifth of those who left school were readmitted.

The proportion of teenagers who are mothers increased from 15 percent in 1971 to 24 percent in 1988.

Figure 5
Percentage of Teenagers Who are Mothers By Age and Education

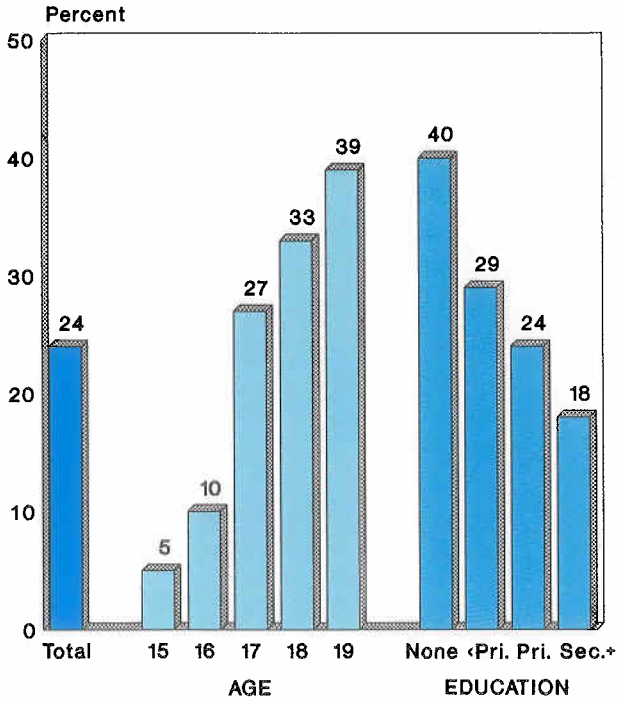


Figure 6
Knowledge and Use of Modern Methods of Family Planning, 1984 and 1988
(All Women 15-49)

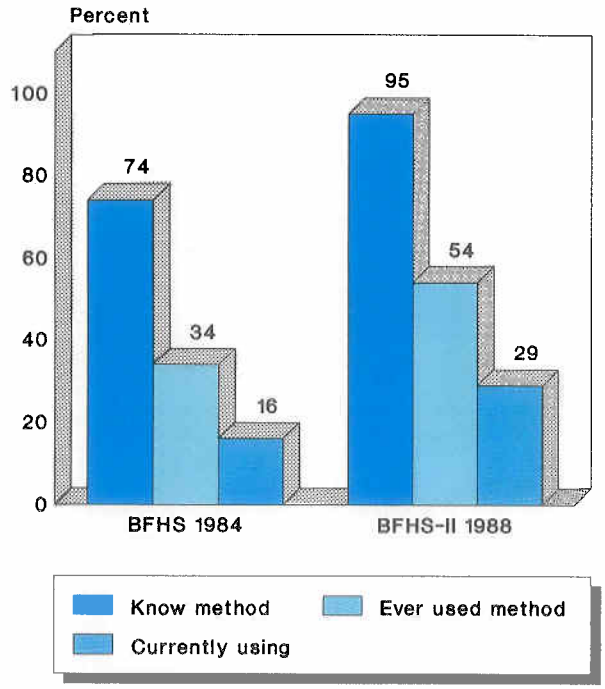
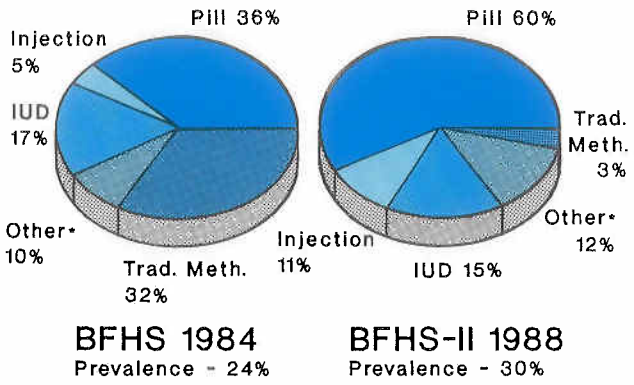


Figure 7
Current Use of Specific Methods of Family Planning, 1984 and 1988
(All Women 15-49)



• Includes condom, vaginal methods, female and male sterilization

Family Planning

Knowledge of Family Planning

Knowledge of family planning methods and of places to obtain them is critical in the decision to use family planning and which method is used. The BFHS-II found that the MCH/FP programme has been quite successful in educating women about family planning.

- Knowledge of family planning methods has increased steadily over the past 4 years. In 1988, 95 percent of women reported knowing at least one method compared with 75 percent in 1984.
- Knowledge of modern methods of contraception is high with 95 percent of all women knowing at least one modern method. Women are most likely to know the pill, followed by the IUD, injection, and the condom.
- Virtually all women who had heard of a method were able to name a source for that method and most women named a government facility.

Ninety-five percent of women know at least one method of family planning.

Use of Family Planning

Use of contraception is the most important measurement of success in a family planning programme. The BFHS-II found that more than half of all women in Botswana have used a modern method of family planning sometime and 3 out of 10 are currently using a contraceptive method to delay or avoid a birth.

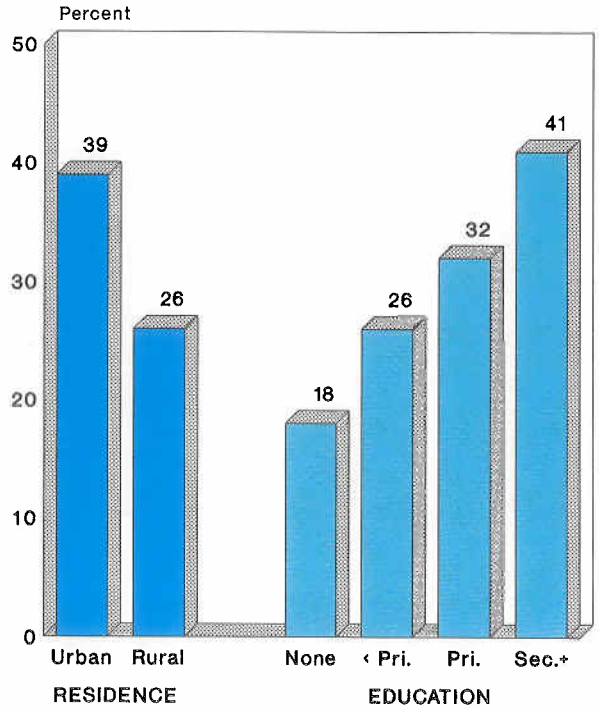
- Thirty-three percent of women in union and 30 percent of all women currently use a method of family planning.
- Since the introduction of integrated MCH/FP services in 1984, the use of modern methods of contraception increased from 16 to 29 percent, with major increases in the use of the pill, injection, and female sterilisation.
- The use of family planning is related to a woman's residence and education. Thirty-nine percent of urban women use contraception compared with 26 percent of rural women; and contraceptive prevalence increases from 18 percent among women with no education to over 40 percent among women who have secondary or higher education.
- Government health facilities are the major source of family planning services; 94 percent of current users obtain their method from a government facility.

Barriers to the Use of Family Planning

Women who are not currently using family planning, but do not wish to become pregnant soon, report a number of barriers to the use of family planning. At the same time, many of these women intend to use family planning in the future.

- The most frequently cited reasons for not using contraception were infrequent sex (17 percent) and opposition to family planning (15 percent). For many women, however, inconvenience (14 percent), cost (11 percent), and opposition of partner to family planning (7 percent) appear to be barriers to use.
- Half of the women who were not using contraception reported that they would be unhappy if they became pregnant soon. Five out of 10 nonusers said they intend to use family planning in the future and most said they would use in the next 12 months.

Figure 8
Current Use of Family Planning By Residence and Education
(All Women 15-49)



Thirty-three percent of women in union and 30 percent of all women are currently using a method of family planning.

Figure 9
Approval of Family Planning
(Women in Union 15-49)

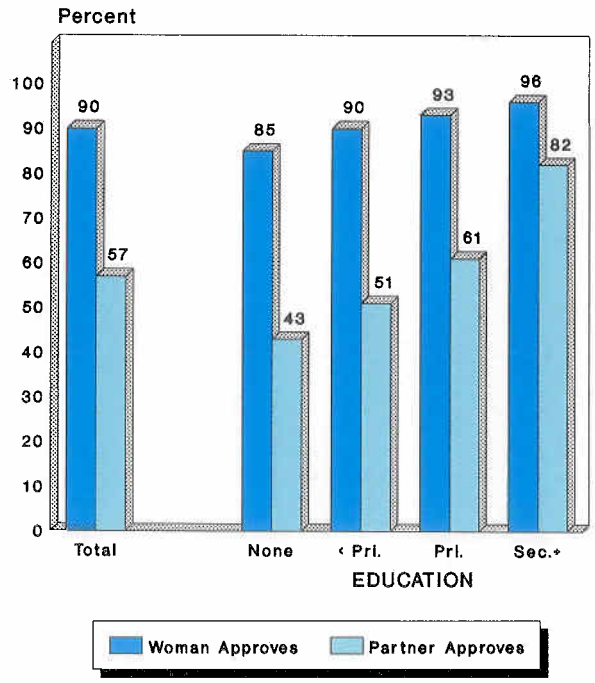
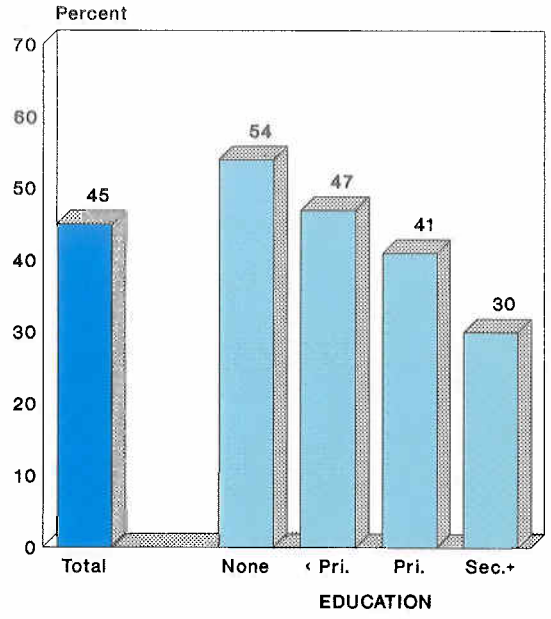


Figure 10
Need for Family Planning By Education
(Women in Union 15-49)



Partner's Attitude Toward Family Planning

The survey obtained data on women's perceptions of their partner's attitude toward family planning. Among couples, male approval is much lower than that of females, although the reported level of partner's approval has increased since 1984.

- While 90 percent of women in union approved of family planning, only 57 percent thought their partner approved.
- Perception of male approval of family planning has increased since 1984, when only 40 percent of respondents reported that their partner approved of family planning.
- Seven in 10 women had discussed family planning with their partner in the past year and one-quarter of couples had talked about it three or more times.

Need for Family Planning Services

For the five-year period preceding the survey many women reported that they had a birth sooner than they would have liked; a few women said that they had another birth when they preferred not to have any more children. Women can be considered in need of family planning if they are not currently using a method of contraception and either want no more births or want to postpone the next birth for two or more years. The BFHS-II found that 45 percent of women in union are in need of family planning.

- Half of the births in the five years before the survey were not wanted at the time they occurred; five percent were not wanted at all.
- Six out of 10 first births, predominantly to teenagers, occur before they are wanted.
- Twenty-one percent of women are in need of family planning because they want no more children and 24 percent are in need because they want to delay their next birth.
- Slightly more than half of the women in need intend to use family planning. A higher proportion of women in need who want no more children intend to use family planning than women in need who want to postpone a birth.

Maternal and Child Health

Infant and Childhood Mortality

Findings from the BFHS-II indicate that infant and childhood mortality continue to decline, although children of mothers with no education and children born soon after a previous birth have higher mortality.

- Mortality rates for the five-year period preceding the BFHS-II are 37 per 1000 (infant) and 16 per 1000 (childhood).
- Factors contributing to the low rate of infant and childhood mortality are: the extended period of breastfeeding, widespread immunisation coverage, access to clean water, and the high level of ORT (oral rehydration therapy) use for treatment of diarrhoea. Nutrition, health, and income-generating programmes established to counter the effects of drought between 1982 and 1988 also contributed to the decrease in mortality.
- While there is no significant difference in infant mortality between the children of urban and rural mothers, children of mothers with no education have a greater probability of dying in the first year of life than children of mothers who attended school.
- Infants born less than two years after a previous birth are twice as likely to die as infants born after an interval of two or more years.

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Figure 11
Trends in Infant and Child Mortality

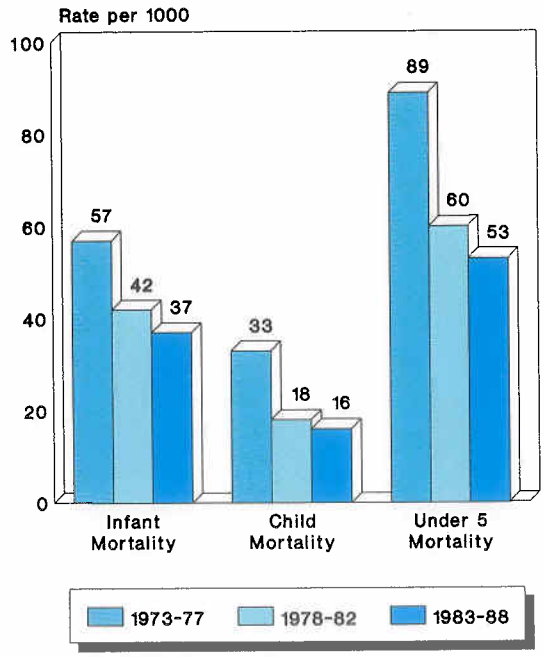


Figure 12
Birth Spacing and Infant Mortality

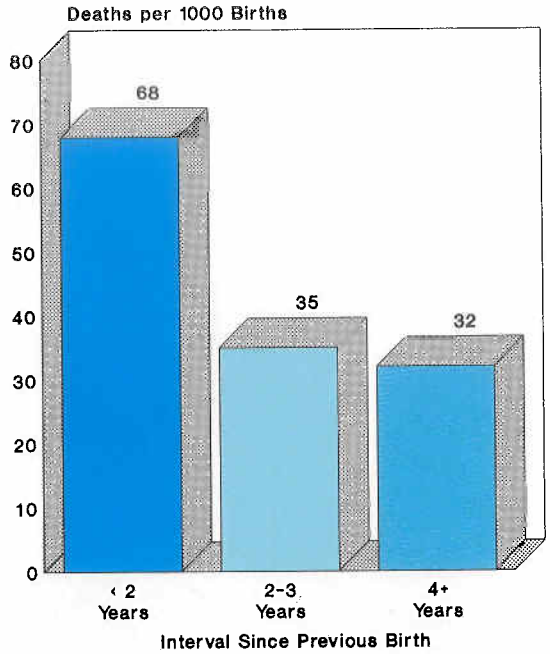
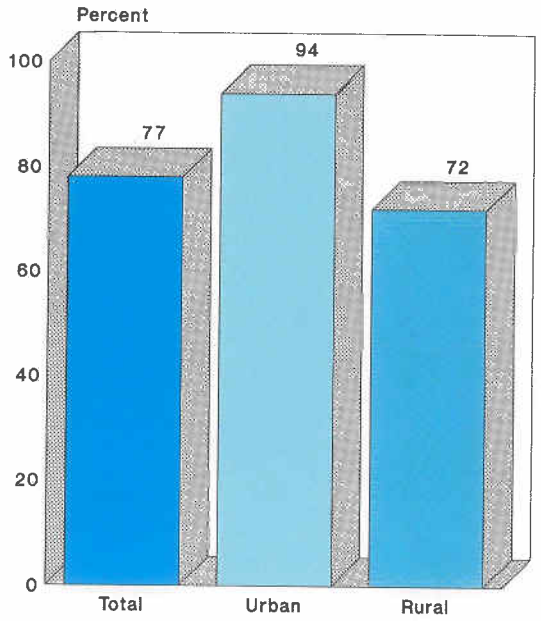
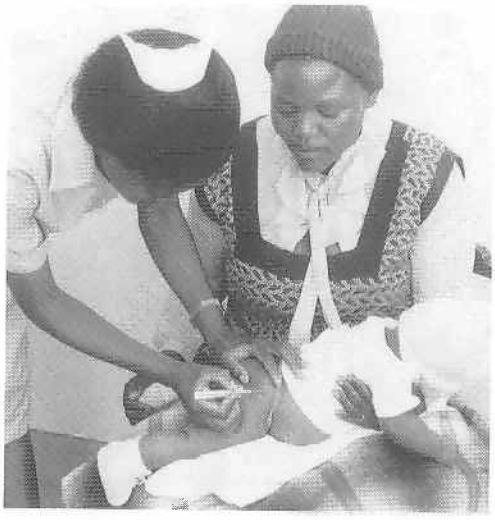


Figure 13
Assistance at Delivery From Trained Health Personnel



Since 1984, the proportion of births delivered by trained health personnel has increased from 66 to 77 percent.



Antenatal and Postnatal Care

Maternal and child health services are widely used by women in Botswana. The programme has expanded significantly since 1984.

- Ninety-two percent of births in the five years before the survey received antenatal care from a doctor or nurse.
- For 84 percent of births the mother received a tetanus toxoid injection during pregnancy.
- Since 1984, the proportion of births delivered by trained health personnel has increased from 66 to 77 percent.
- Rural women (72 percent) are less likely to receive assistance at delivery from a trained person than urban women (94 percent).
- The proportion of infants and mothers receiving postnatal care rose from 54 percent in 1984 to 71 percent.

Immunisation of Young Children

Almost all young children have received immunisations against childhood diseases.

- Health cards were seen for 74 percent of children age 12-23 months and mothers reported immunisations for an additional 22 percent.
- Among children 12-23 months with health cards, 89 percent are fully immunised against the major preventable childhood diseases--diphtheria, whooping cough, tetanus, polio, measles, and tuberculosis.

Eighty-nine percent of children 12-23 months (with health cards) are fully immunised against the major childhood diseases.

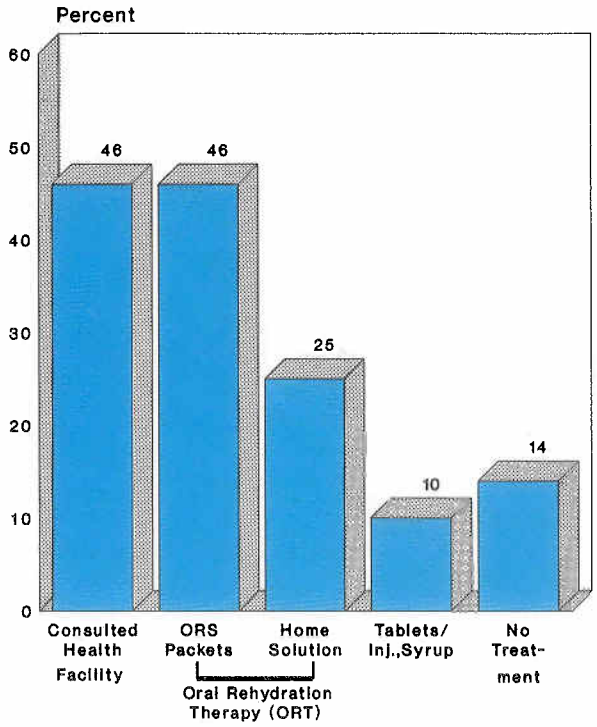
Treatment of Childhood Diseases

A significant proportion of children receive appropriate treatment for illnesses. Three-quarters of the children who suffered from diarrhoea received oral rehydration therapy (ORT), a highly effective treatment for young children. Of concern to health professionals, however, is the large number of children for whom fluid and food intake was reduced during the diarrhoeal episode.

- Ten percent of children had diarrhoea in the two weeks preceding the survey. Half of the children with diarrhoea received an ORT solution prepared from a special packet of salts (ORS); one-quarter were treated with a homemade sugar and salt solution.
- Fluid and/or food intake was reduced for more than a third of the children with diarrhoea.
- The majority of children reported to have fever or respiratory illness in the four weeks before the survey were taken to a health facility for treatment.

Three-quarters of children with diarrhoea receive oral rehydration therapy (ORT).

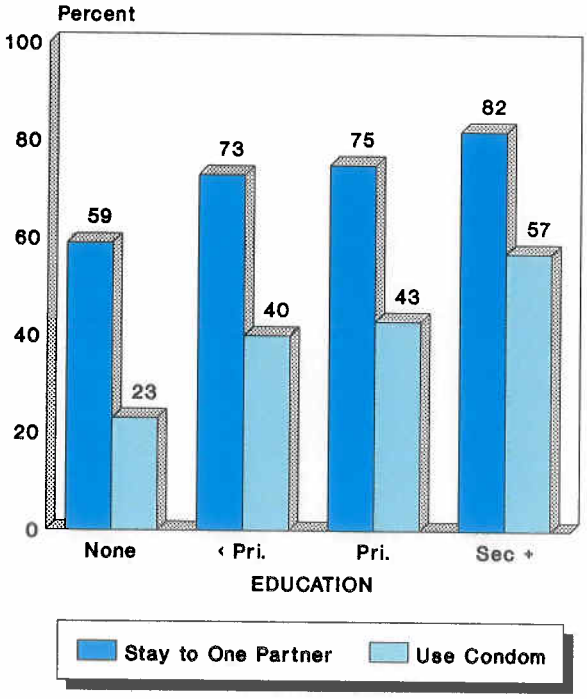
Figure 14
Treatment of Childhood Diarrhoea
(Episodes in the 2 Weeks Before Delivery)



Knowledge of AIDS

The BFHS-II included questions on knowledge of AIDS, ways the disease is transmitted, persons at greatest risk of contracting the disease, and behaviors that enable people to avoid AIDS. In the absence of a vaccine or cure, education about preven-

Figure 15
Knowledge of Ways to Avoid AIDS
(Women 15-49 Who Have Heard of AIDS)



tion is the main strategy for combatting the disease. Nearly all women interviewed in the survey had heard of AIDS; however, many had misconceptions about the disease or lacked correct information.

- Nine out of 10 women have heard about AIDS.
- Almost all women who knew about AIDS thought that women and men with many partners were at risk of getting the disease.
- Half of the respondents thought that people who had casual contact with a person with AIDS were at high risk of contracting the disease.
- Most women heard about AIDS from the radio. Over half also received information about the disease from a pamphlet or poster.
- Three-quarters of women reported AIDS could be avoided by limiting sex partners; 4 in 10 women mentioned the use of condoms to avoid AIDS.

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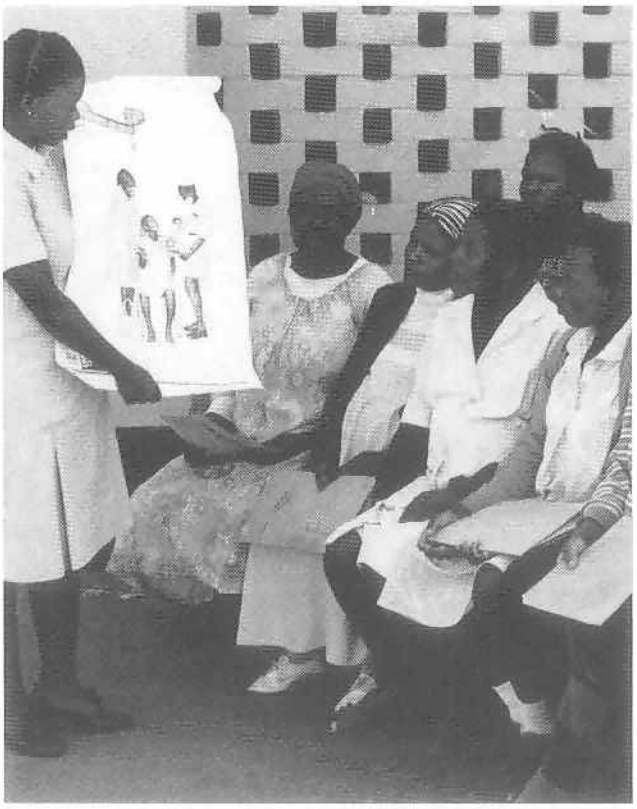
Program Factors

Information, Education, and Communication (IEC)

The continued improvement of family health in Botswana depends to a large extent on improvements in the area of information, education, and communication (IEC).

- Counselling services should be strengthened so that they are better able to provide information about family planning and to dispel misconceptions women have regarding the use of contraception. In particular, health workers should be given additional skills in counselling.
- At the district level, IEC activities need to be strengthened by training or designating officers specifically to carry out these activities.
- IEC materials targeting special population subgroups, e.g., illiterate women and men, should be developed.
- Additional attention should be placed on informing men about health and other benefits of family planning. Emphasis should be placed on the importance of couple communication in this area and on the fact that childbearing is the joint responsibility of the couple and not the choice of the man or woman alone.

IEC and staff training are key factors in the continued improvement of family health in Botswana.



Selected Indicators of Progress Between 1984 and 1988, Botswana Family Health Surveys

Indicator	BFHS 1984	BFHS-II 1988
Total Fertility Rate	6.5	5.0
Percentage of teenagers who are mothers	23	24
Family Planning Knowledge and Use		
Percentage of all women knowing a method	75	95
Percentage of all women knowing a source	69	95
Percentage of all women currently using any modern method	16	29
Percentage of women in union using any modern method	19	32
Utilization of MCH Services		
Percentage of births receiving antenatal care	90	92
Percentage of births having medically supervised deliveries	66	77
Percentage of births receiving postnatal care	54	71
Percentage of births visited at home by health worker immediately after delivery	26	35

Family Planning

- Emphasis should be placed on identifying women and men in need of family planning services, particularly those concerned about limiting their family size. Counselling about family planning during the provision of antenatal and post-partum services is a key mechanism in reaching these women.
- Potential acceptors should be counselled about the most appropriate methods for their age, life situation, and fertility intentions.
- Acceptors should be informed about possible side effects associated with the method they adopt, and follow-up of acceptors should be emphasized to reduce the frequency of discontinuation due to side effects.

Teenage Pregnancy

- Further efforts should be directed toward educating and counselling teenagers (both boys and girls) about responsible sexual behavior.
- Research should be undertaken to further investigate the determinants and consequences of adolescent childbearing.

Breastfeeding and Post-partum Abstinence

- The health benefits of traditional practices such as breastfeeding and post-partum abstinence should continue to be stressed.

Infant and Childhood Mortality

- More research is needed to better understand the factors contributing to infant and childhood mortality.
- The Civil Registration System needs strengthening for improved statistics on births and deaths.
- Questions designed to produce estimates of perinatal mortality and maternal mortality should be included in the 1991 Population and Housing Census.

Future Plans

- Expand the health care system to reach remote areas.
- Strengthen community-based MCH/FP delivery systems.
- Formulate a more explicit policy on population and development.
- Integrate local clinics into the health care system.
- Develop a diploma program for health education.
- Conduct a study of the side effects of contraceptive use.
- Accelerate the IEC program for greater input into the population development program.

PRB/VAN DER TAK

FACT SHEET

The Botswana Family Health Survey II (BFHS-II) was conducted on behalf of the Family Health Division of the Ministry of Health by the Central Statistics Office through its Continuous Household Integrated Programme of Surveys. Financial and technical assistance for the survey was provided by the Institute for Resource Development, under a contract with the U.S. Agency for International Development. The objective of the survey was to provide information on family planning awareness, approval and use, basic indicators of maternal and child health, and other topics related to family health. The survey data can also be used to evaluate the progress achieved by the Maternal and Child Health/Family Planning programme since the Botswana Family Health Survey of 1984 (BFHS). A nationally representative sample of 4,368 women, age 15-49 years, was interviewed in both urban and rural areas between August and December 1988.

Population Size (1987 estimate, in millions)	1.2
Population Growth Rate (percent)	3.7
Population Doubling Time (years)	19
Birth Rate (per 1,000 population)	46
Death Rate (per 1,000 population)	11

Botswana Family Health Survey II 1988

Sample Population	
Women 15-49	4,368
Background Characteristics	
Percent urban	30.1
Percent with complete primary or higher education	51.4
Marriage and Other Fertility Determinants	
Percent currently in union	39.1
Percent ever in union	47.1
Percent with sexual experience	92.3
Median age at first sexual intercourse for women 20-49	17.3
Average length of breastfeeding (in months)[1]	18.8
Average length of postpartum amenorrhoea (in months)[1]	11.6
Average length of postpartum abstinence (in months)[1]	12.7
Fertility	
Total fertility rate[2]	5.0
Average number of children ever born to women 40-49	5.8
Percent of all women who are pregnant	7.1
Teenage Pregnancy	
Median age at first birth for women 20-49	19.6
Percent of teenage women (aged 15-19):	
Who are mothers	23.5
Pregnant with first child	4.9
Left school because of pregnancy	9.3
Desire for Children	
Percent of women in union:	
Wanting no more children[3]	32.7
Wanting to delay next birth at least 2 years	29.2
Average ideal number of children for women 15-49	4.7
Percent of births which are unwanted[4]	6.2
Percent of births which are mistimed[3]	52.2
Knowledge and Use of Family Planning	
Percent of women:	
Knowing any method	95.4
Ever using any method	56.0
Currently using any method	29.7
Percent of women in union:	
Knowing any method	94.8
Ever using any method	63.0
Currently using any method	33.0
Pill	14.8
IUD	5.6
Injection	5.4
Vaginal methods	0.0
Condom	1.3
Female sterilisation	4.3
Male sterilisation	0.3
Periodic Abstinence	0.2
Withdrawal	0.3
Other methods	0.8

Percent of contraceptors obtaining method from:	
Government source	94.2
Private doctor	3.5
Pharmacy	1.3
Other	1.0
Mortality and Health	
Infant mortality rate (per 1000 births)[6]	37.4
Neonatal mortality rate (per 1000 births)[6]	21.6
Childhood mortality rate (per 1000 children aged 1 year)[6]	16.0
Percent of mothers of recent births:[7]	
Received prenatal care from doctor or nurse midwife during pregnancy	92.2
Immunised against tetanus during pregnancy	84.5
Assisted at delivery by a doctor or nurse midwife	77.5
Received postnatal visit	35.1
Received postnatal care from a doctor or nurse midwife	71.3
Percent of children 0-1 month breastfed	90.8
Percent of children 10-11 months breastfed	86.4
Percent of children 16-17 months breastfed	58.1
Percent of children 12-23 months with health cards immunised:	
BCG	98.6
DPT (3 doses)	94.0
Polio (3 doses)	97.7
Measles	92.6
Percent of children under five with diarrhoea[8]	9.9
Percent of children with diarrhoea:	
Taken to medical facility	45.9
Given oral rehydration solution from packets	46.4
Given home solution of sugar, salt and water	25.3
Percent of mothers of children under five who know about oral rehydration therapy (ORT)	85.6
Percent of children under five with fever[9]	3.9
Percent of children with fever taken to medical facility	90.2
Percent of children under five with cough or difficult breathing[10]	28.7
Percent of children under five with cough or difficult breathing taken to medical facility	82.3
Percent of women who have heard of AIDS	88.3
Percent of women who have heard of AIDS who:	
Thought women with many partners are at risk of getting AIDS	93.8
Heard of AIDS on the radio	83.8
Knew limiting partners was a way to avoid AIDS	73.2
Knew using condoms was a way to avoid AIDS	42.4
Thought a person with AIDS should be quarantined	79.4

[1] Current status estimate based on births within 36 months of the survey
[2] Based on births to women 15-49 years during the period 0-4 years before the survey
[3] Includes sterilised women
[4] Percent of births in the 12-month period before the survey which were unwanted
[5] Percent of births in the 12-month period before the survey which were wanted later
[6] Rates are for the period 1983-1988
[7] Based on births occurring during the five years before the survey
[8] Reported by the mother as having diarrhoea during the two weeks before the survey
[9] Reported by the mother as having fever during the four weeks before the survey
[10] Reported by the mother as having cough or difficult breathing during the four weeks before the survey