Sudan Demographic and Health Survey 1989/1990

Department of Statistics
Ministry of Economic and National Planning

DHS
Demographic and Health Surveys
Institute for Resource Development/Macro International, Inc.
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1989/1990

Department of Statistics
Ministry of Economic and National Planning
Khartoum, Sudan

Institute for Resource Development/Macro International, Inc.
Columbia, Maryland USA

May 1991
This report presents the findings of the Sudan Demographic and Health Survey (SDHS). The survey was a collaborative effort between the Department of Statistics, Ministry of Economic and National Planning, the Republic of the Sudan, and the Institute for Resource Development/Macro International, Inc. (IRD). The survey is part of the worldwide Demographic and Health Surveys programme, which is designed to collect data on fertility, family planning, and maternal and child health. Funding for the survey was provided by the government of the Republic of Sudan, United States Agency for International Development (Contract No. DPE-3023-C-00-4083-00), and UNICEF. Additional information about the SDHS can be obtained from the Population Census Office, Department of Statistics, Ministry of Economic and National Planning, P.O. Box 700, Khartoum, Sudan. Additional information about the DHS programme can be obtained by writing to: DHS Programme, IRD/Macro International, Inc., 8850 Stanford Boulevard, Suite 4000, Columbia, MD 21045, USA (Telephone: 301- 290-2800; Telex: 87775; Fax: 301-290-2999).
# CONTENTS

CONTENTS ..................................................................... iii

TABLES ........................................................................ vii

FIGURES ........................................................................ xi

FOREWORD ................................................................... xv

SUMMARY .................................................................... xvii

MAP OF SUDAN ................................................................. xxii

CHAPTER 1  BACKGROUND .................................................... 1

  1.1 Geography, History, Economy .......................................... 1
  1.2 Population ........................................................................ 1
  1.3 Population and Family Planning Policies and Programmes .......... 3
  1.4 Health Priorities and Programmes ....................................... 4
  1.5 Education System .......................................................... 4
  1.6 Objectives of the Survey .............................................. 4
  1.7 Organisation of the Survey ............................................. 5

CHAPTER 2  BACKGROUND CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS ............................................... 9

  2.1 Household Population by Age .......................................... 9
  2.2 Educational Level and Marriage ........................................ 9
  2.3 Household Composition .............................................. 12
  2.4 Housing Characteristics .............................................. 13
  2.5 Presence of Durable Goods in the Household ...................... 15
  2.6 Background Characteristics of Women ........................... 15
  2.7 Characteristics of Husbands ........................................... 20

CHAPTER 3  FERTILITY ...................................................... 23

  3.1 Levels and Differentials in Fertility ................................... 23
  3.2 Fertility Trends .......................................................... 25
  3.3 Current Pregnancy ................................................... 28
  3.4 Children Ever Born ................................................... 29
  3.5 Age at First Birth ..................................................... 30
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>FERTILITY REGULATION</td>
<td>33</td>
</tr>
<tr>
<td>4.1</td>
<td>Knowledge of Family Planning Methods and Sources</td>
<td>33</td>
</tr>
<tr>
<td>4.2</td>
<td>Knowledge of Fertility Period</td>
<td>36</td>
</tr>
<tr>
<td>4.3</td>
<td>Knowledge of Sources for Specific Contraceptive Methods</td>
<td>37</td>
</tr>
<tr>
<td>4.4</td>
<td>Problems Perceived with Contraceptive Methods</td>
<td>38</td>
</tr>
<tr>
<td>4.5</td>
<td>Ever Use of Contraception</td>
<td>39</td>
</tr>
<tr>
<td>4.6</td>
<td>Current Use of Contraception</td>
<td>41</td>
</tr>
<tr>
<td>4.7</td>
<td>Number of Children at First Use</td>
<td>43</td>
</tr>
<tr>
<td>4.8</td>
<td>Source of Current Contraceptive Method</td>
<td>44</td>
</tr>
<tr>
<td>4.9</td>
<td>Dissatisfaction with Current Providers of Contraception</td>
<td>46</td>
</tr>
<tr>
<td>4.10</td>
<td>Attitude Toward Next Pregnancy and Reason for Nonuse of Contraception</td>
<td>46</td>
</tr>
<tr>
<td>4.11</td>
<td>Intention to Use Contraception in the Future</td>
<td>48</td>
</tr>
<tr>
<td>4.12</td>
<td>Approval and Acceptability of Family Planning</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>NUPTIALITY AND EXPOSURE TO THE RISK OF PREGNANCY</td>
<td>55</td>
</tr>
<tr>
<td>5.1</td>
<td>Current Marital Status</td>
<td>55</td>
</tr>
<tr>
<td>5.2</td>
<td>Polygyny</td>
<td>56</td>
</tr>
<tr>
<td>5.3</td>
<td>Age at First Marriage</td>
<td>58</td>
</tr>
<tr>
<td>5.4</td>
<td>Breastfeeding, Postpartum Amenorrhoea, and Abstinence</td>
<td>60</td>
</tr>
<tr>
<td>6</td>
<td>FERTILITY PREFERENCES</td>
<td>65</td>
</tr>
<tr>
<td>6.1</td>
<td>Desire for Children</td>
<td>65</td>
</tr>
<tr>
<td>6.2</td>
<td>Ideal Family Size</td>
<td>70</td>
</tr>
<tr>
<td>6.3</td>
<td>Fertility Planning</td>
<td>72</td>
</tr>
<tr>
<td>6.4</td>
<td>Need for Family Planning</td>
<td>73</td>
</tr>
<tr>
<td>7</td>
<td>CHILDHOOD MORTALITY</td>
<td>75</td>
</tr>
<tr>
<td>7.1</td>
<td>Childhood Mortality Data</td>
<td>75</td>
</tr>
<tr>
<td>7.2</td>
<td>Assessment of Data Quality</td>
<td>75</td>
</tr>
<tr>
<td>7.3</td>
<td>Levels and Trends in Childhood Mortality</td>
<td>78</td>
</tr>
<tr>
<td>7.4</td>
<td>Differentials in Childhood Mortality</td>
<td>80</td>
</tr>
<tr>
<td>8</td>
<td>MATERNAL AND CHILD HEALTH</td>
<td>83</td>
</tr>
<tr>
<td>8.1</td>
<td>Maternal Care Indicators</td>
<td>83</td>
</tr>
<tr>
<td>8.2</td>
<td>Utilisation of Child Health Services</td>
<td>89</td>
</tr>
<tr>
<td>8.3</td>
<td>Child Morbidity and Treatment</td>
<td>96</td>
</tr>
<tr>
<td>8.4</td>
<td>Knowledge and Use of ORS</td>
<td>104</td>
</tr>
</tbody>
</table>
TABLES

CHAPTER 1

Table 1.1 Population size and growth rate ........................................ 2
Table 1.2 Age-specific fertility rates and total fertility rates .......... 3
Table 1.3 Sample results .................................................................... 8

CHAPTER 2

Table 2.1 Distribution of the household population by age ............... 10
Table 2.2 Distribution of the household population by education and marriage ............................................................................. 11
Table 2.3 Type of household and household size ............................. 13
Table 2.4 Housing characteristics .................................................. 14
Table 2.5 Durable goods in the household ....................................... 15
Table 2.6 Background characteristics of respondents .................... 17
Table 2.7 Women’s level of education ............................................. 18
Table 2.8 Type of migration and reasons for migration ................... 19
Table 2.9 Exposure to radio ......................................................... 20
Table 2.10 Background characteristics of husbands of respondents .... 21

CHAPTER 3

Table 3.1 Total fertility rates ............................................................. 24
Table 3.2 Age-specific fertility rates for five-year periods ................. 26
Table 3.3 Comparison of age-specific fertility rates, SFS and SDHS ..... 27
Table 3.4 Currently pregnant women .............................................. 29
Table 3.5 Children ever born ............................................................ 30
Table 3.6 Children ever born by age at first marriage ..................... 31
Table 3.7 Age at first birth ............................................................... 32
Table 3.8 Median age at first birth by background characteristics .... 32

CHAPTER 4

Table 4.1 Knowledge of contraceptive methods .............................. 34
Table 4.2 Knowledge of modern contraceptive methods .................. 35
Table 4.3 Knowledge of the fertile period ....................................... 36
Table 4.4 Knowledge of source of supply for specific methods .......... 37
Table 4.5 Problems perceived in using specific methods ................. 38
Table 4.6 Ever use of contraception ................................................. 40
Table 4.7 Current use of contraception ............................................ 42
Table 4.8 Number of children at first use of contraception ............... 44
Table 4.9 Sources of contraceptive services .................................... 45
Table 4.10 Dissatisfaction with source of contraceptive services ...... 46
Table 4.11 Attitude toward becoming pregnant among nonusers .... 47
Table 4.12 Reasons for nonuse of contraception ............................... 48
Table 4.13 Intention to use contraception in the future .................. 49
Table 4.14 Preferred method for future use ............................ 49
Table 4.15 Attitudes of husbands and wives toward family planning .... 50
Table 4.16 Approval of family planning by wives and their husbands ..... 51
Table 4.17 Frequency of discussion of family planning by couples .......... 52
Table 4.18 Approval of the use of mass media for disseminating family planning information ............................ 53

CHAPTER 5

Table 5.1 Marital status of women 15-49 ............................. 55
Table 5.2 Polygyny ........................................ 57
Table 5.3 Age at first marriage .................................. 58
Table 5.4 Differentials in the median age at first marriage .......... 60
Table 5.5 Breastfeeding and exposure to the risk of pregnancy .... 61
Table 5.6 Differentials in breastfeeding and in exposure to the risk of pregnancy ........................................ 62

CHAPTER 6

Table 6.1 Future reproductive intentions according to number of living children ........................................ 66
Table 6.2 Future reproductive intentions according to age ............ 68
Table 6.3 Desire to limit childbearing ................................ 69
Table 6.4 Ideal number of children .................................. 70
Table 6.5 Mean ideal number of children, by background characteristics ........................................ 72
Table 6.6 Planning status of births in the preceding year ............ 73
Table 6.7 Unmet need for family planning ............................ 74

CHAPTER 7

Table 7.1 Underreporting of early infant deaths ....................... 76
Table 7.2 Heaping of reported age at death .......................... 77
Table 7.3 Mean number of children ever born, surviving, and dead .... 78
Table 7.4 Infant and child mortality rates by five-year calendar periods ........................................ 79
Table 7.5 Childhood mortality rates by background characteristics .... 81
Table 7.6 Childhood mortality by demographic characteristics .......... 82

CHAPTER 8

Table 8.1 Antenatal care ........................................ 84
Table 8.2 Tetanus toxoid immunisation ................................ 86
Table 8.3 Assistance during delivery .................................. 88
Table 8.4 Immunisation coverage among children under five .......... 91
Table 8.5 Immunisation coverage among children 12-23 months .... 93

viii
Table 8.6  Prevalence of cough and use of health care providers for 
treatment of cough .................................................. 97
Table 8.7  Treatment for cough ........................................ 99
Table 8.8  Prevalence of diarrhoea among children under five .......... 101
Table 8.9  Treatment practices for children with diarrhoea ............ 102
Table 8.10 Use of ORS packets ....................................... 105

CHAPTER 9

Table 9.1 Siblings of respondents ..................................... 108
Table 9.2 Estimates of age-specific mortality .......................... 111
Table 9.3 Direct estimates of maternal mortality ....................... 112
Table 9.4 Indirect estimates of maternal mortality ..................... 114

CHAPTER 10

Table 10.1 Prevalence and types of female circumcision .......... 118
Table 10.2 Persons who perform female circumcision ............ 119
Table 10.3 Preferred type of female circumcision according to 
circumcision status of respondents and respondents' 
daughters .............................................................. 122
Table 10.4 Preferred type of female circumcision according to selected 
background characteristics ...................................... 123
Table 10.5 Husband's attitude toward female circumcision .......... 125
Table 10.6 Reasons for favouring continuation of female circumcision .... 126
Table 10.7 Reasons for favouring discontinuation of female 
circumcision .......................................................... 127
Table 10.8 Reasons female circumcision continues .................. 128
Table 10.9 Women's opinions of the best way to abolish female 
circumcision .......................................................... 129

APPENDIX A

Table A.1 Clusters points by province .................................. 136

APPENDIX B

Table B.1 List of selected variables with sampling errors ............. 141
Table B.2 Sampling errors - entire sample ................................ 142
Table B.3 Sampling errors - urban area .................................. 143
Table B.4 Sampling errors - rural area .................................. 144
FIGURES

CHAPTER 2

Figure 2.1 Distribution of the population by age, SFS, 1983 census, and SDHS ....................... 10
Figure 2.2 Percent distribution of ever-married women by current age, SFS and SDHS .................... 16

CHAPTER 3

Figure 3.1 Total fertility rate (TFR) and mean number of children ever born (CEB) .......................... 25
Figure 3.2 Age-specific fertility rates, SFS and SDHS .......................................................... 28

CHAPTER 4

Figure 4.1 Current use of contraception by residence and region among currently married women 15-49 .................................................. 43
Figure 4.2 Trends in contraceptive use among currently married women 15-49, SFS and SDHS .......................................................................................... 43
Figure 4.3 Source of contraceptive methods for current users of modern methods ......................... 45

CHAPTER 5

Figure 5.1 Distribution of never-married women by age, SFS and SDHS ........................................ 56
Figure 5.2 Median age at first marriage, SFS and SDHS ............................................................ 59
Figure 5.3 Mean duration of breastfeeding, amenorrhea, and postpartum abstinence ...................... 63

CHAPTER 6

Figure 6.1 Fertility preferences among currently married women 15-49 ........................................ 66
Figure 6.2 Fertility preferences among currently married women 15-49 by number of living
CHAPTER 7

Figure 7.1 Trends in Infant ($q_0$) and under-five ($q_0$) mortality, SFS and SDHS .......................... 80

CHAPTER 8

Figure 8.1 Antenatal care received from trained personnel by residence and region ............................. 85
Figure 8.2 Tetanus toxoid immunisation (antenatal) by residence and region ................................. 87
Figure 8.3 Children under 5 with a health card and immunisation coverage for all children under 5 .............. 90
Figure 8.4 Percentage of children 12-23 months fully immunised by their first birthday ....................... 94
Figure 8.5 Drop-out rates between DPT1 and DPT3 among children 12-23 months ..................... 95
Figure 8.6 Source of immunisation services for children under 5 years .................................. 95
Figure 8.7 Knowledge of source of immunisation services among mothers with children under 5 who were not immunised ......................... 96
Figure 8.8 Treatment for diarrhoea (other than ORT) among children under 5 years with diarrhoea .......... 103
Figure 8.9 Sources of treatment for diarrhoea among children under 5 years with diarrhoea ................. 103
Figure 8.10 Feeding practices during diarrhoea among children under 5 with diarrhoea ..................... 104
Figure 8.11 Quantity of water used to prepare ORT solution from (UNICEF) ORS packets ...................... 106

CHAPTER 9

Figure 9.1 Percent distribution of dead sisters of respondents by time of death ............................. 109
Figure 10.2  Ever-married women who favour continuation of female circumcision by religion and husband’s occupation .......................... 121

Figure 10.3  Wife’s perception of husband’s attitude toward female circumcision by attitude of wife ........................................ 124
FOREWORD

The Sudan Demographic and Health Survey (SDHS) was conducted as part of worldwide Demographic and Health Surveys programme (DHS) of the Institute for Resource Development (IRD)/Macro International, Inc. Sudan is one of fifteen African countries that participated in the first phase of the programme. The survey is a welcome addition to demographic and health data in the country. It provides detailed information on various demographic components such as marriage, fertility, family planning, and on the socioeconomic factors associated with these variables. Knowledge of these components of population dynamics is considered an integral part of effective development planning in Sudan.

The survey was conducted in two phases in 1989 and 1990 by the Department of Statistics. It was limited to northern Sudan due to civil unrest in the South. The survey was conducted with financial support from USAID and UNICEF and technical assistance from IRD.

The successful implementation of the SDHS would not have been possible without the active and dedicated efforts of a large number of people. In particular, I would like to thank Mr. Abdel Wahab Modawi, the project director, Mr. Ibrahim Abbas Saif Elnasr, deputy project director, Mr. Elnaieem S. Abbas, sampling coordinator, Mr. Mohamed A. Yousef, field coordinator, Mr. Abdeen Frahat, assistant field coordinator, and Mr. Ahmed Suliman and Mr. Salah A. Rahman, data processing coordinators. My thanks also go to the directors and staff of the regional statistical offices. Special thanks to Ms. Suzan Wesley of the Ministry of Health for her valuable participation in training field staff and also to the interviewers, who carried out the fieldwork under difficult conditions, and all the other people who took part in the survey, in particular the drivers, editors, coders, and data entry personnel. Thanks are also due to the regional governors and their staff in the regional departments who helped very much in making life easier for the interviewers and other field staff.

I would also like to express special thanks to the DHS staff for their dedicated efforts throughout the various stages of the project. In particular, I would like to thank Dr. Jeremiah Sullivan, Dr. Mohamed Ayad, and Ms. Naomi Rutenberg for their roles in ensuring Sudan’s participation in the DHS programme. I would like to thank Dr. Alfredo Aliaga, Ms. Thanh Le, and Mr. Sushil Kumar for their valuable assistance and hard work during the survey design. Special thanks to Ms. Jeanne Cushing for her valuable assistance and hard work in data processing activities and in training the data processing staff. Also our thanks to Ms. Elizabeth Britton for her important role in solving computer problems that faced the operators at the beginning of the data entry. My thanks to Ms. Annie Cross for reviewing the report, Dr. Sidney Moore for editing the report, Dr. George T. Bicego and Dr. Fred Arnold, and other staff who participated in this work for their efforts.

I also wish to record my special thanks to Mr. Sushil Kumar, the monitor for the Sudan Demographic and Health Survey for his efforts throughout the various stages of the survey, especially for travelling with the field staff to the different parts of the country and for his contributions to this report.
Last but not least, I gratefully acknowledge the help of those people who made this report available in such a short period of time as the first study based on survey data to be used by planners and policymakers.

Dr. Omer A. El Tay  
Director General  
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SUMMARY

The Sudan Demographic and Health Survey (SDHS) was conducted in two phases between November 15, 1989 and May 21, 1990 by the Department of Statistics of the Ministry of Economic and National Planning. The survey collected information on fertility levels, marriage patterns, reproductive intentions, knowledge and use of contraception, maternal and child health, maternal mortality, and female circumcision. The survey findings provide the National Population Committee and the Ministry of Health with valuable information for use in evaluating population policy and planning public health programmes.

A total of 5860 ever-married women age 15-49 were interviewed in six regions in northern Sudan; three regions in southern Sudan could not be included in the survey because of civil unrest in that part of the country. The SDHS provides data on fertility and mortality comparable to the 1978-79 Sudan Fertility Survey (SFS) and complements the information collected in the 1983 census.

Fertility levels and trends

Fertility has declined sharply in Sudan, from an average of six children per women in the Sudan Fertility Survey (TFR 6.0) to five children in the Sudan DHS survey (TFR 5.0). Women living in urban areas have lower fertility (TFR 4.1) than those in rural areas (5.6), and fertility is lower in the Khartoum and Northern regions than in other regions. The difference in fertility by education is particularly striking; at current rates, women who have attained secondary school education will have an average of 3.3 children compared with 5.9 children for women with no education, a difference of almost three children.

Although fertility in Sudan is low compared with most sub-Saharan countries, the desire for children is strong. One in three currently married women wants to have another child within two years and the same proportion want another child in two or more years; only one in four married women wants to stop childbearing. The proportion of women who want no more children increases with family size and age. The average ideal family size, 5.9 children, exceeds the total fertility rate (5.0) by approximately one child. Older women are more likely to want large families than younger women, and women just beginning their families say they want to have about five children.

Marriage

Almost all Sudanese women marry during their lifetime. At the time of the survey, 55 percent of women 15-49 were currently married and 5 percent were widowed or divorced. Nearly one in five currently married women lives in a polygynous union (i.e., is married to a man who has more than one wife). The prevalence of polygyny is about the same in the SDHS as it was in the Sudan Fertility Survey.

Marriage occurs at a fairly young age, although there is a trend toward later marriage among younger women (especially those with junior secondary or higher level of schooling). The proportion of women 15-49 who have never married is 12 percentage points higher in the SDHS than in the Sudan Fertility Survey.

There has been a substantial increase in the average age at first marriage in Sudan. Among
Since age at first marriage is closely associated with fertility, it is likely that fertility will decrease in the future.

With marriages occurring later, women are having their first birth at a later age. While one in three women age 45-49 had her first birth before age 18, only one in six women age 20-24 began childbearing prior to age 18. The women most likely to postpone marriage and childbearing are those who live in urban areas or in the Khartoum and Northern regions, and women with post-primary education.

Breastfeeding and postpartum abstinence

Breastfeeding and postpartum abstinence provide substantial protection from pregnancy after the birth of a child. In addition to the health benefits to the child, breastfeeding prolongs the length of postpartum amenorrhoea. In Sudan, almost all women breastfeed their children; 93 percent of children are still being breastfed 10-11 months after birth, and 41 percent continue breastfeeding for 20-21 months. Postpartum abstinence is traditional in Sudan and in the first two months following the birth of a child 90 percent of women were abstaining; this decreases to 32 percent after two months, and to 5 percent after one year. The survey results indicate that the combined effects of breastfeeding and postpartum abstinence protect women from pregnancy for an average of 15 months after the birth of a child.

Knowledge and use of contraception

Most currently married women (71 percent) know at least one method of family planning, and 59 percent know a source for a method. The pill (70 percent) is the most widely known method, followed by injection, female sterilisation, and the IUD. Only 39 percent of women knew a traditional method of family planning.

Despite widespread knowledge of family planning, only about one-fourth of ever-married women have ever used a contraceptive method, and among currently married women, only 9 percent were using a method at the time of the survey (6 percent modern methods and 3 percent traditional methods). The level of contraceptive use while still low, has increased from less than 5 percent reported in the Sudan Fertility Survey.

Use of family planning varies by age, residence, and level of education. Current use is less than 4 percent among women 15-19, increases to 10 percent for women 30-44, then decreases to 6 percent for women 45-49. Seventeen percent of urban women practice family planning compared with only 4 percent of rural women; and women with senior secondary education are more likely to practice family planning (26 percent) than women with no education (3 percent).

There is widespread approval of family planning in Sudan. Almost two-thirds of currently married women who know a family planning method approve of the use of contraception. Husbands generally share their wives’s views on family planning. Three-fourths of married women who were not using a contraceptive method at the time of the survey said they did not intend to use a method in the future.

Communication between husbands and wives is important for successful family planning. Less than half of currently married women who know a contraceptive method said they had talked about
family planning with their husbands in the year before the survey; one in four women discussed it once or twice; and one in five discussed it more than twice. Younger women and older women were less likely to discuss family planning than those age 20 to 39.

Mortality among children

The neonatal mortality rate in Sudan remained virtually unchanged in the decade between the SDHS and the SFS (44 deaths per 1000 births), but under-five mortality decreased by 14 percent (from 143 deaths per 1000 births to 123 per thousand). Under-five mortality is 19 percent lower in urban areas (117 per 1000 births) than in rural areas (144 per 1000 births).

The level of mother's education and the length of the preceding birth interval play important roles in child survival. Children of mothers with no education experience nearly twice the level of under-five mortality as children whose mother had attained senior secondary or higher education. Mortality among children under five is 2.7 times higher among children born after an interval of less than 24 months than among children born after an interval of 48 months or more.

Maternal mortality

The maternal mortality rate (maternal deaths per 1000 women years of exposure) has remained nearly constant over the twenty years preceding the survey, while the maternal mortality ratio (number of maternal deaths per 100,000 births), has increased (despite declining fertility). Using the direct method of estimation, the maternal mortality ratio is 352 maternal deaths per 100,000 births for the period 1976-82, and 552 per 100,000 births for the period 1983-89. The indirect estimate for the maternal mortality ratio is 537. The latter estimate is an average of women's experience over an extended period before the survey centred on 1977.

Maternal health care

The health care mothers receive during pregnancy and delivery is important to the survival and well-being of both children and mothers. The SDHS results indicate that most women in Sudan made at least one antenatal visit to a doctor or trained health worker/midwife. Eighty-seven percent of births benefitted from professional antenatal care in urban areas compared with 62 percent in rural areas. Although the proportion of pregnant mothers seen by trained health workers/midwives are similar in urban and rural areas, doctors provided antenatal care for 42 percent and 19 percent of births in urban and rural areas, respectively.

Neonatal tetanus, a major cause of infant deaths in developing countries, can be prevented if mothers receive tetanus toxoid vaccinations. One-third of Sudanese mothers received two doses of tetanus toxoid during their pregnancy, while an additional one-tenth received one dose. The proportion of births whose mothers received two doses of tetanus toxoid is substantially higher in urban areas than in rural.

For births occurring in the five years preceding the survey, 18 percent of urban mothers were attended by doctors, 68 percent by trained health workers/midwives, and 11 percent by traditional birth attendants; for rural mothers these percentages were 4 percent, 56 percent, and 34 percent, respectively, indicating that rural women still depend on the traditional attendants more than doctors for assistance at delivery.
Sudan’s Expanded Programme of Immunisation (EPI) recommends that all children receive immunisations in the first year of life against common childhood diseases. In the SDHS mothers of 46 percent of children age 12-23 months were able to show interviewers the health card documenting their child’s immunisations. For 33 percent of children the health card was not available but their mothers reported that they had received at least one immunisation.

The SDHS results indicate that immunisation coverage for children 12-23 months is moderate: 76 percent of children had been immunised against BCG, 60 percent had received three doses of DPT, 61 percent had received three doses of polio, 61 percent were vaccinated against measles, and 52 percent had had all primary immunisations. Immunisation coverage is higher for urban children than for rural children; it is higher in the Khartoum and Northern regions than in other regions; and it increases sharply with the mother’s level of education.

Diarrhoea, a common illness among infants and young children, can cause severe dehydration and if left untreated, can lead to death. The SDHS results show that 30 percent of children under five had had diarrhoea in the two weeks preceding the survey, and 18 percent in the 24 hours preceding the survey. Prevalence was highest among children between the ages of 6 and 23 months.

Dehydration caused by diarrhoea can be treated effectively and inexpensively using oral rehydration therapy (ORT). In Sudan 29 percent of children with diarrhoea were treated with a solution prepared from ORS packets (salts), and 8 percent with a homemade salt and sugar solution. About half of the children with diarrhoea were taken to a medical facility; however, 30 percent neither visited a health facility nor received any treatment.

Coughing together with difficult breathing is symptom of lower respiratory tract infection particularly pneumonia. Of all children under five, 48 percent had had a cough and 19 percent had had both a cough and difficult breathing during the two weeks before the survey. About 50 percent of the children suffering from cough were taken for treatment to a government health facility, 11 percent went to private doctors or hospitals and 4 percent consulted pharmacies. Children having cough in urban areas were more likely to be taken to private doctors (25 percent) than children in rural areas (3 percent).

Female circumcision

The SDHS collected data on the prevalence of female circumcision and the attitudes of women and men toward the practice. Eighty-nine percent of ever-married women in Sudan have been circumcised, representing a slight drop from 96 percent reported by the SFS. The majority of women received Pharaonic circumcision (82 percent); 15 percent received Sunna, and 3 percent had an intermediate type of circumcision.

More than three-quarters of ever-married women support continuation of the practice of female circumcision. Support for circumcising their own daughters is even stronger than for circumcision in general. Among those wanting to retain the practice, Sunna circumcision (the least severe type) is preferred by 48 percent of the ever-married women; 46 percent prefer Pharaonic circumcision and 5 percent prefer the intermediate type. Those who oppose continuation of female circumcision said they believe the best way to abolish the practice is through education campaigns and the enforcement of laws against female circumcision.