

# Tajikistan - Demographic and Health Survey 2012

**Statistical Agency - Republic of Tajikistan, Ministry of Health - Republic of  
Tajikistan**

Report generated on: June 8, 2017

Visit our data catalog at: <http://microdata.worldbank.org>



# Sampling

## Sampling Procedure

---

The 2012 TjDHS sample was designed to permit detailed analysis, including the estimation of rates of fertility, infant/child mortality, and abortion at the national level and for total urban and rural areas separately. Many indicators can also be estimated at the regional (oblast) level. In addition, in the Khatlon region, the sample is sufficient to provide separate estimates of the nutritional status of children for the 12 districts included in the Feed the Future Initiative (FTF) pilot areas.

A representative probability sample of 6,674 households was selected for the 2012 TjDHS sample. The sample was selected in two stages. In the first stage, 356 clusters were selected from a list of enumeration areas that were part of a master sample designed from the 2010 Population Census. In the second stage, a complete listing of households was made for each selected cluster. Households were then systematically selected for participation in the survey.

All women age 15-49 who were either permanent residents of the households in the 2012 TjDHS sample or visitors present in the household on the night before the survey were eligible to be interviewed. Interviews were completed with 9,656 women.

Appendix A (in the final report - Tajikistan Demographic and Health Survey 2012) provides additional information on the sample design of the 2012 TjDHS.

## Response Rate

---

A total of 6,674 households were selected in the sample, of which 6,512 were occupied at the time of the fieldwork. The main reason for the difference is that some of the dwelling units that were occupied during the household listing operation were either vacant or the household was away for an extended period at the time of interviewing. The number of occupied households successfully interviewed was 6,432, yielding a household response rate of 99 percent. The household response rate in urban areas (98 percent) was slightly lower than in rural areas (99 percent).

In these households, a total of 9,794 eligible women were identified; interviews were completed with 9,656 of these women, yielding a response rate of 99 percent. Response rates are slightly higher in urban areas (99 percent) than in rural areas (98 percent).

## Weighting

---

Due to the non-proportional allocation of the sample to the different regions and the differences in response rates, analysis of the 2012 TjDHS data requires the data to be weighted to ensure the actual representation of the survey results at the national level as well as at the regional level. Since the 2012 TjDHS sample is a two-stage stratified cluster sample, sampling weights were calculated based on sampling probabilities for each sampling stage and for each cluster.

Refer to Appendix A4 in the final report (Tajikistan Demographic and Health Survey 2012) for details of sampling weights calculation.

# Questionnaires

## Overview

---

Two questionnaires were used in the TjDHS: a Household Questionnaire and a Woman's Questionnaire. The Household Questionnaire and the Woman's Questionnaire were based on model survey instruments developed in the MEASURE DHS program. The DHS model questionnaires were adapted for use in Tajikistan by experts from the Statistical Agency (SA) and the Ministry of Health (MOH). Suggestions were also sought from USAID; a number of the UN agencies, including the United Nations Development Program (UNDP), UNFPA, and UNICEF; and other international and nongovernmental organizations (NGOs). The questionnaires were developed in English and translated into Russian and Tajik. The Household Questionnaire and the Woman's Questionnaire were pretested in March 2012.

The Household Questionnaire was used to list all usual members of and visitors to the selected households and to collect information on the socioeconomic status of the households. The first part of the Household Questionnaire collected, for each household member or visitor, information on their age, sex, educational attainment, and relationship to the head of household. This information provided basic demographic data for Tajikistan households. It also was used to identify the women who were eligible for the individual interview (i.e., women age 15-49). The first section of the Household Questionnaire also obtained information on other characteristics of household members, including information on each child's birth registration. Other questions addressed housing characteristics (e.g., the flooring material, the source of water, and the type of toilet facilities), ownership of consumer goods, and other aspects of the socioeconomic status of the household. Results of testing of household salt for the presence of iodine and results of taking height and weight measurements of children under age 5 and of women age 15-49 also were recorded in the Household Questionnaire.

The Woman's Questionnaire obtained information from women age 15-49 on the following topics:

- Background characteristics
- Pregnancy history
- Antenatal, delivery, and postnatal care
- Knowledge, attitudes, and use of contraception
- Reproductive health
- Childhood mortality
- Health care utilization
- Vaccinations of children under age 5
- Episodes of diarrhea and respiratory illness of children under age 5
- Breastfeeding and weaning practices
- Marriage and recent sexual activity
- Fertility preferences
- Knowledge of and attitudes toward AIDS and other sexually transmitted diseases
- Knowledge of and attitudes toward tuberculosis
- Woman's work and husband's background characteristics
- Other women's health issues
- Domestic violence

## Data Collection

### Data Collection Dates

Start	End	Cycle
2012-07	2012-09	N/A

### Data Collection Mode

Face-to-face [f2f]

#### DATA COLLECTION NOTES

##### Training of Field Staff

The main survey training, which was conducted by the SA, MOH, and ICF International staff, was held during a three-week period in June and was attended by 100 people (78 females and 22 males), including supervisors, field editors, interviewers, and quality control personnel. The training included lectures, demonstrations, practice interviews, and examinations. All field staff received training in anthropometric measurement and participated in two days of field practice.

##### Fieldwork

Fourteen teams collected the survey data; each team consisted of four female interviewers, a field editor, and a team supervisor. Fieldwork began in early July 2012 and concluded in late September 2012. Senior TjDHS technical staff visited teams regularly to review the work and monitor data quality. MEASURE DHS also assisted with field supervision. In addition, UNFPA/Tajikistan representatives visited teams to monitor data collection and to observe the height and weight measurements of women and children under age 5.

# Data Processing

## Data Editing

---

The processing of the TjDHS results began shortly after fieldwork commenced. Completed questionnaires were returned regularly from the field to SA headquarters in Dushanbe, where they were entered and edited by data processing personnel specially trained for this task. The data processing personnel included a supervisor, a questionnaire administrator (who ensured that the expected number of questionnaires from all clusters was received), several office editors, 11 data entry operators, and a secondary editor. The concurrent processing of the data was an advantage because the senior DHS technical staff were able to advise field teams of problems detected during the data entry. In particular, tables were generated to check various data quality parameters, and the results were used to provide specific feedback to the teams to improve performance. The data entry and editing phase of the survey was completed in November 2012.

# Data Appraisal

## Estimates of Sampling Error

The estimates from a sample survey are affected by two types of errors: (1) non-sampling errors and (2) sampling errors. Non-sampling errors are the results from mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2012 Tajikistan Demographic and Health Survey (TjDHS 2012) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the TjDHS 2012 is only one of many samples that could have been selected from the same population, using the same design and identical size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability among all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the standard error for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the TjDHS 2012 sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulas. The computer software used to calculate sampling errors for the TjDHS 2012 was a SAS program. This program uses the Taylor linearization method for variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate,  $r = y/x$ , where  $y$  represents the total sample value for variable  $y$ , and  $x$  represents the total number of cases in the group or subgroup under consideration.

Refer to Appendix B in the final report (Tajikistan Demographic and Health Survey 2012) for details of estimates of sampling errors.

## Other forms of Data Appraisal

The following data quality tables are produced:

- Household age distribution
- Age distribution of eligible and interviewed women
- Completeness of reporting
- Births by calendar years
- Reporting of age at death in days
- Reporting of age at death in months
- Nutritional status of children based on the NCHS/CDC/WHO International Reference Population

See the tables in Appendix C of the final report (Tajikistan Demographic and Health Survey 2012).





## Related Materials

### Questionnaires

#### Demographic and Health Survey 2012, Household Questionnaire

---

Title Demographic and Health Survey 2012, Household Questionnaire  
 Author(s) Statistical Agency Ministry of Health  
 Country Tajikistan  
 Language English  
 Filename Tajikistan\_2012\_DHS\_household\_questionnaire.pdf

---

#### Demographic and Health Survey 2012, Woman's Questionnaire

---

Title Demographic and Health Survey 2012, Woman's Questionnaire  
 Author(s) Statistical Agency Ministry of Health  
 Country Tajikistan  
 Language English  
 Filename Tajikistan\_2012\_DHS\_woman\_questionnaire.pdf

---

### Reports

#### Tajikistan Demographic and Health Survey 2012

---

<p>Title Author(s) Date Country Language Description</p>	<p>Tajikistan Demographic and Health Survey 2012          Statistical Agency under the President of the Republic of Tajikistan, Dushanbe, Tajikistan MEASURE DHS, ICF International, Calverton, Maryland, USA          2013-11-01          Tajikistan          English          This report summarizes the findings of 2012 Tajikistan Demographic and Health Surveys (TDHS) conducted by the Statistical Agency under the President of the Republic of Tajikistan in collaboration with the Ministry of Health. Support for the 2012 TDHS was provided by the United States Agency for International Development (USAID) as part of the MEASURE DHS project. Additional funding and support for the 2012 TDHS was received from the United Nations Population Fund (UNFPA).</p>
--	--

LIST OF TABLES AND FIGURES	ix
ACKNOWLEDGEMENTS	xv
HDQ TABLE	xviii
MAP OF COUNTRY	xviii
<b>1 INTRODUCTION</b>	
1.1 Geography and Population	1
1.2 History of Tajik Culture	2
1.3 Economy	3
1.4 Health Care System	3
1.4.1 Facilities and Human Resources	3
1.4.2 Health Care Reforms	4
1.4.3 Primary and Secondary Health Care	5
1.4.4 Maternal and Child Health Care	6
1.4.5 Family Planning Services	6
1.4.6 Tuberculosis DOTS Program	7
1.4.7 HIV/AIDS Program	7
1.5 Systems for Collecting Demographic and Health Data	8
1.6 Objectives and Organization of the Survey	9
1.6.1 Sample Design and Implementation	9
1.6.2 Questionnaires	9
1.6.3 Training of Field Staff	10
1.6.4 Fieldwork and Data Processing	10
1.7 Response Rates	11
<b>2 HOUSING CHARACTERISTICS AND HOUSEHOLD POPULATION</b>	
2.1 Housing Characteristics	14
2.1.1 Drinking Water	14
2.1.2 Sanitation Facilities	16
2.1.3 Other Dwelling Characteristics	17
2.2 Household Possessions	19
2.3 Household Wealth	20
2.4 Hand Washing	21
2.5 Household Population by Age and Sex	22
2.6 Household Composition	23
2.7 Birth Registration	24
2.8 Children's Living Arrangements	25
2.9 Education of Household Members	27
2.9.1 Educational Attainment	27
2.9.2 School Attendance	29
2.9.3 Early Childhood Education	31
<b>3 BACKGROUND CHARACTERISTICS OF RESPONDENTS</b>	
3.1 Background Characteristics of Respondents	33
3.2 Educational Attainment by Background Characteristics	34
3.3 Media Exposure	35
3.4 Employment	36
3.4.1 Employment Status	37
3.4.2 Occupation	38
3.4.3 Type of Employment	39
3.5 Tuberculosis	40
3.5.1 Knowledge and Attitudes about Tuberculosis	40
3.5.2 Knowledge of Tuberculosis Symptoms	42
3.5.3 Misconceptions about How Tuberculosis is Spread	43
3.5.4 Knowledge about How to Prevent Tuberculosis	44
3.6 Hypertension	46
3.7 Smoking	48
<b>4 MARRIAGE AND SEXUAL ACTIVITY</b>	
4.1 Current Marital Status	49
4.2 Age at First Marriage	50
4.3 Age at First Intercourse	51
4.4 Recent Sexual Activity	52
<b>5 FERTILITY</b>	
5.1 Current Fertility	55
5.2 Fertility Differentials	58
5.3 Fertility Trends	60
5.4 Children Ever Born and Living	60
5.5 Birth Intervals	61
5.6 Postpartum Amenorrhea, Abstinence, and Inseparability	63
5.7 Menopause	65
5.8 Age at First Birth	65
5.9 Teenage Pregnancy and Motherhood	66
<b>6 FERTILITY PREFERENCES</b>	
6.1 Desire for More Children	69
6.2 Desire to Limit Childbearing	71
6.3 Ideal Family Size	72
6.4 Fertility Planning	73
6.5 Wanted Fertility Rates	74
<b>7 FAMILY PLANNING</b>	
7.1 Knowledge of Contraceptive Methods	77
7.2 Current Use of Contraception	78
7.3 Current Contraceptive Use by Background Characteristics	80
7.4 Trends in Current Contraceptive Use	81
7.5 Source of Modern Contraceptive Methods	83
7.6 Informed Choice	84
7.7 Contraceptive Discontinuation	85
7.8 Knowledge of the Fertile Period	87
7.9 Unmet Need for Family Planning	88
7.10 Future Use of Family Planning	90
7.11 Exposure to Family Planning Messages	91
7.12 Family Planning Discussion with Health Providers	92
<b>8 ABORTION</b>	
8.1 Collection of Abortion Data	93
8.2 Pregnancies Ending in Induced Abortion	93
8.3 Lifetime Experience with Induced Abortion	94
8.4 Rates of Induced Abortion	96
8.4.1 Abortion Level	96
8.4.2 Abortion Differentials	97
8.4.3 Abortion Trends	98
8.5 Use of Contraception before Abortion	98
<b>9 INFANT AND CHILD MORTALITY</b>	
9.1 Source and Assessment of Mortality Data	101
9.1.1 Source of the Data	101
9.1.2 Data Quality	102
9.2 Levels and Trends in Childhood Mortality	103
9.3 Socioeconomic Differentials in Childhood Mortality	104
9.4 Demographic Differentials in Childhood Mortality	105
9.5 Perinatal Mortality	106
9.6 High-risk Fertility Behavior	108
9.7 Registration of Child Deaths	109
<b>10 MATERNAL HEALTH</b>	
10.1 Antenatal Care	112
10.1.1 Antenatal Care Coverage	112
10.1.2 Number of Antenatal Visits	114
10.1.3 Components of Antenatal Care	116
10.2 Delivery Care	116
10.2.1 Place of Delivery	116
10.2.2 Assistance during Delivery	118
10.2.3 Cesarean Section	120
10.3 Postnatal Care for Mothers and Children	120
10.3.1 Postnatal Checkup for Mother	120
10.3.2 Postnatal Checkup for the Newborn	123
10.4 Breast Cancer Awareness and Testing	124
10.5 Awareness of Cervical Cancer	126
10.6 Visits to Family Doctor	127
10.7 Problems in Accessing Health Care	129
<b>11 CHILD HEALTH</b>	
11.1 Child's Size at Birth	131
11.2 Vaccination of Children	133
11.2.1 Vaccination Coverage	133
11.2.2 Differentials in Vaccination Coverage	135
11.2.3 Trends in Vaccination Coverage	136
11.3 Childhood Illness and Treatment	136
11.3.1 Acute Respiratory Infections (ARI)	136
11.3.2 Fever	138
11.3.3 Diarrhea	139
11.3.4 Knowledge of ORS	143
11.4 Stool Disposal	144
<b>12 NUTRITION OF CHILDREN AND WOMEN</b>	
12.1 Nutritional Status of Children	147
12.1.1 Measurement of Nutritional Status among Young Children	148
12.1.2 Levels of Child Malnutrition	149
12.1.3 Trends in Children's Nutritional Status	151
12.2 Breastfeeding and Complementary Feeding	153
12.2.1 Initiation of Breastfeeding	153
12.2.2 Breastfeeding Status by Age	155
12.4 Duration of Breastfeeding	157
12.5 Types of Complementary Foods	158
12.6 Infant and Young Child Feeding Practices	160
12.7 Micronutrient Intake among Children	162
12.7.1 Consumption of Micronutrient-rich Foods	164
12.7.2 Micronutrient Supplementation	164
12.7.3 Deworming	165
12.8 Household Iodized Salt Consumption	165
12.9 Nutritional Status of Women	166
12.10 Micronutrient Intake among Mothers	168
<b>13 HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOR</b>	
13.1 Knowledge of HIV/AIDS and Transmission and Prevention Methods	172
13.1.1 Knowledge of AIDS	172
13.1.2 Knowledge of HIV Prevention Methods	173
13.1.3 Comprehensive Knowledge about AIDS	174
13.2 Knowledge of Prevention of Mother-to-Child Transmission of HIV	176
13.3 Attitudes towards People Living with HIV	177
13.4 Attitudes toward Negotiating Safe Sexual Relations with Husbands	179
13.5 Attitudes towards Condom Education for Youth	180
13.6 Multiple Sexual Partners	181
13.7 Coverage of HIV Counseling and Testing	182
13.8 Self-reported Prevalence of Sexually Transmitted Infections (STIs) and STI Symptoms	184
13.9 Prevalence of Medical Injections	186
13.10 HIV/AIDS Knowledge and Sexual Behavior Among Youth	187
13.10.1 HIV/AIDS-Related Knowledge among Young Adults	188
13.10.2 Age at First Sexual Intercourse among Young Adults	189
13.10.3 Cross-Generational Sexual Partners	190
13.10.4 Voluntary HIV Counseling and Testing among Young Adults	190
<b>14 DOMESTIC VIOLENCE</b>	
14.1 Measurement of Violence	193
14.1.1 Use of Valid Measures of Violence	193
14.1.2 Ethical Considerations in Measuring Violence	195
14.2 Experience of Physical Violence	195
14.3 Experience of Sexual Violence	197
14.4 Experience of Different Forms of Violence	199
14.5 Violence during Pregnancy	200
14.6 Marital Control by Husband	200
14.7 Forms of Spousal Violence	202
14.8 Differentials in Spousal Violence	204
14.9 Recent Experience of Spousal Violence	207
14.10 Onset of Spousal Violence	209
14.11 Physical Consequences of Spousal Violence	209
14.12 Violence by Women against Their Spouse	210
14.13 Help-seeking Behavior by Women Who Experience Violence	212
<b>15 WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES</b>	
15.1 Employment and Form of Earnings	216
15.2 Women's Control over Their Own Earnings	216
15.3 Women's Control over Their Husband's Earnings	218
15.4 Ownership of Assets	219
15.5 Women's Empowerment	221
15.6 Attitudes toward Wife Beating	223
15.7 Indicators of Women's Empowerment	225
15.8 Current Use of Contraception by Women's Empowerment	226
15.9 Ideal Family Size and Unmet Need by Women's Empowerment	227
15.10 Reproductive Health Care by Women's Empowerment	228
15.11 Infant and Child Mortality and Women's Empowerment	229
<b>REFERENCES</b>	231
<b>APPENDIX A</b>	
A.1 Introduction	237
A.2 Sample Frame	237
A.3 Sampling Procedures and Sample Allocation	238
A.4 Sample Probabilities and Sampling Weights	238
A.5 Survey Results	239
<b>APPENDIX B</b>	241
<b>APPENDIX C</b>	253
<b>APPENDIX D</b>	259
<b>APPENDIX E</b>	263

Filename <http://www.dhsprogram.com/pubs/pdf/R279/R279.pdf>

## Tajikistan 2012 Demographic and Health Survey, Key Findings

---

Title Tajikistan 2012 Demographic and Health Survey, Key Findings  
 Author(s) MEASURE DHS  
 Date 2013-11-01  
 Country Tajikistan  
 Language English  
 Filename <http://www.dhsprogram.com/pubs/pdf/SR203/SR203.pdf>

## Tajikistan 2012 Demographic and Health Survey, Atlas of Key Indicators

---

Title Tajikistan 2012 Demographic and Health Survey, Atlas of Key Indicators  
 Author(s) MEASURE DHS  
 Date 2013-11-01  
 Country Tajikistan  
 Language English  
 Filename <http://www.dhsprogram.com/pubs/pdf/ATR14/ATR14.pdf>

## HIV/AIDS: Results from the 2012 TjDHS

---

Title HIV/AIDS: Results from the 2012 TjDHS  
 Author(s) MEASURE DHS  
 Date 2013-11-01  
 Country Tajikistan  
 Language English  
 Filename <http://www.dhsprogram.com/pubs/pdf/HF48/HF48.pdf>

## 2012 Tajikistan Demographic and Health Survey (TjDHS)

---

Title 2012 Tajikistan Demographic and Health Survey (TjDHS)  
 Author(s) MEASURE DHS  
 Date 2013-11-01  
 Country Tajikistan  
 Language English  
 Filename <http://www.dhsprogram.com/pubs/pdf/GF30/GF30.pdf>

## Women's Status and Domestic Violence: Results from the 2012 TjDHS

---

Title Women's Status and Domestic Violence: Results from the 2012 TjDHS  
 Author(s) MEASURE DHS  
 Date 2013-11-01  
 Country Tajikistan  
 Language English  
 Filename <http://www.dhsprogram.com/pubs/pdf/OF20/OF20.pdf>

## Fertility, Family Planning, and Abortion: Results from the 2012 TjDHS

---

Title Fertility, Family Planning, and Abortion: Results from the 2012 TjDHS  
 Author(s) MEASURE DHS  
 Date 2013-11-01  
 Country Tajikistan

Language English  
 Filename <http://www.dhsprogram.com/pubs/pdf/OF20/OF20.FF.pdf>

---

## Tajik Households: Results from the 2012 TjDHS

---

Title Tajik Households: Results from the 2012 TjDHS  
 Author(s) MEASURE DHS  
 Date 2013-11-01  
 Country Tajikistan  
 Language English  
 Filename <http://www.dhsprogram.com/pubs/pdf/OF20/OF20.HH.pdf>

---

## Nutrition: Results from the 2012 TjDHS

---

Title Nutrition: Results from the 2012 TjDHS  
 Author(s) MEASURE DHS  
 Date 2013-11-01  
 Country Tajikistan  
 Language English  
 Filename <http://www.dhsprogram.com/pubs/pdf/OF20/OF20.NUT.pdf>

---

## Maternal and Child Health: Results from the 2012 TjDHS

---

Title Maternal and Child Health: Results from the 2012 TjDHS  
 Author(s) MEASURE DHS  
 Date 2013-11-01  
 Country Tajikistan  
 Language English  
 Filename <http://www.dhsprogram.com/pubs/pdf/OF20/OF20.MCH.pdf>

---

## Other materials

### Reading and Understanding DHS Tables

---

Title Reading and Understanding DHS Tables  
 Author(s) MEASURE DHS  
 Date 2013-11-01  
 Country Tajikistan  
 Language English  
 Filename <http://www.dhsprogram.com/pubs/pdf/DM37/DM37.pdf>

---