Report on Bangladesh Sample Vital Statistics 2020

Monitoring the Situation of Vital Statistics of Bangladesh (MSVSB) Project (3rd Phase)
Bangladesh Bureau of Statistics

KEY FINDINGS OF SAMPLE VITAL REGISTRATION SYSTEM 2020

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Indicators	2020	2019	2018	2017	2016
1. National Population (Estimated)					
Population(in million) : July 1					
Both Sexes	168.22	166.50	164.6	162.7	160.8
Male	84.19	83.33	82.4	81.4	80.5
Female	84.03	83.17	82.2	81.3	80.3
Intercensal Growth Rate (%)	1.37*	1.37*	1.37*	1.37*	1.37*
2. Number of PSUs					
Total	2012	2012	2012	2012	2012
Rural	1077	1077	1077	1077	1077
Urban	935	935	935	935	935
3. Sample population					
Total	1285013	1269741	1259744	1252581	957913
Male	643252	635543	630605	627068	479446
Female	641761	634198	629139	625513	478467
Population by Broad Age-groups (percent)					
Both Sexes					
00-14	28.1	28.5	28.8	29.3	30.8
15-49	54.9	54.6	54.6	54.4	53.6
50-59	8.7	8.7	8.7	8.3	8.1
60+	8.3	8.2	7.9	8.0	7.5
Total	100.0	100.0	100.0	100.0	100.0
Male					
00-14	28.2	28.8	29.2	29.5	30.9
15-49	54.1	53.7	54.1	54.1	52.8
50-59	9.0	8.8	8.5	8.2	8.2
60+	8.7	8.7	8.2	8.2	8.1
Total	100.0	100.0	100.0	100.0	100.0
Female					
00-14	28.0	28.3	28.4	29.2	30.7
15-49	55.6	55.4	55.1	54.8	54.5
50-59	8.5	8.6	8.8	8.3	7.9
60+	7.9	7.7	7.7	7.7	6.9
Total	100.0	100.0	100.0	100.0	100.0
4. Sample Population Characteristics					
Rate of Natural Increase (CBR-CDR)	1.30	1.32	1.33	1.34	1.4
Sex Ratio (M/F*100)	100.2	100.2	100.2	100.2	100.3
Dependency Ratio (percent)					
Total	50	51	51	53	54
Rural	54	55	55	57	58
Urban	46	46	46	47	49
Child Woman Ratio (per 1000 women aged 15-49)					
Total	302	302	304	310	320
Rural	329	331	332	336	347
Urban	270	270	273	279	289
Population Density (per sq. km)	1140	1125	1116	1103	1090

*Based on the population census of 2001 and 2011

Indicators	2020	2019	2018	2017	2016
5. Fertility					
Crude Birth Rate (per 1000 population)					
Total	18.1	18.1	18.3	18.5	18.7
Rural	20.4	20.0	20.1	20.4	20.9
Urban	15.3	15.9	16.1	16.1	16.1
Age Specific Fertility Rates (per 1000 women in the age group)					
15-19	74	74	74	75	78
20-24	126	126	132	134	132
25-29	109	110	106	105	107
30-34	63	64	62	59	58
35-39	26	25	26	26	26
40-44	8	7	7	7	7
45-49	2	2	3	3	3
Total Fertility Rate (per woman aged 15-49)					
Total	2.04	2.04	2.05	2.05	2.10
Rural	2.37	2.37	2.38	2.37	2.38
Urban	1.66	1.67	1.68	1.68	1.68
General Fertility Rate (per 1000 women aged 15-49)					
Total	65	66	67	68	69
Rural	76	76	77	78	79
Urban	53	55	56	56	57
Gross Reproduction Rate (per woman aged 15-49)					
Total	1.01	1.01	1.01	1.02	1.02
Rural	1.15	1.16	1.16	1.14	1.15
Urban	0.82	0.83	0.83	0.84	0.84
Net Reproduction Rate (per woman aged 15-49)					
Total	1.00	1.00	1.00	1.00	1.00
Rural	1.14	1.15	1.15	1.09	1.10
Urban	0.81	0.82	0.82	0.80	0.80
6. Mortality					
Crude Death Rate (per 1000 population)					
Total	5.1	4.9	5.0	5.1	5.1
Rural	5.2	5.4	5.4	5.7	5.7
Urban	4.9	4.4	4.4	4.2	4.2
Infant Mortality Rate (per 1000 live births)					
Total					
Both sexes	21	21	22	24	28
Male	22	22	23	25	27
Female	21	21	21	23	28
Rural					
Both Sexes	21	22	22	25	28
Male	23	23	23	27	26
Female	21	21	21	23	28
Urban					
Both Sexes	20	20	21	22	28
Male	21	20	21	22	28
Female	20	20	21	23	28

Indicators	2020	2019	2018	2017	2016
Neo-natal Mortality Rate (per 1000 live births)					
Total					
Both Sexes	15	15	16	17	19
Male	16	16	17	18	18
Female	15	15	15	17	20
Rural					
Both Sexes	15	16	16	17	19
Male	16	17	17	18	17
Female	15	15	15	16	19
Urban					
Both Sexes	15	15	16	17	20
Male	15	15	16	17	20
Female	15	15	15	18	20
Post-Neonatal Mortality Rate (per 1000 live births)					
Total					
Both Sexes	6	6	6	7	9
Male	6	6	6	7	9
Female	6	6	6	6	8
Rural					
Both Sexes	6	6	6	8	9
Male	7	6	6	9	9
Female	6	6	6	7	9
Urban					
Both Sexes	5	5	5	5	8
Male	6	5	5	5	8
Female	5	5	6	5	8
Child Death Rate (per 1000 children aged 1-4 years)					
Both Sexes	1.7	1.7	1.7	1.8	1.8
Male	1.8	1.9	1.9	2.1	2.1
Female	1.5	1.5	1.4	1.6	1.6
Under 5 Mortality Rate (per 1000 live births)					
Total					
Both Sexes	28	28	29	31	35
Male	29	30	31	32	35
Female	26	26	27	29	34
Rural					
Both Sexes	28	29	31	33	36
Male	30	31	34	36	36
Female	27	27	28	31	35
Urban					
Both Sexes	26	26	27	27	32
Male	28	27	28	27	32
Female	25	25	25	27	33
Maternal Mortality Ratio (per 1000 live births)					
Total	1.63	1.65	1.69	1.72	1.78
Rural	1.78	1.91	1.93	1.82	1.90
Urban	1.38	1.23	1.32	1.57	1.60

Indicators	2020	2019	2018	2017	2016
7. Life Expectancy at Birth					
Expectation of Life at birth (Years)					
Both Sexes	72.8	72.6	72.3	72.0	71.6
Male	71.2	71.1	70.8	70.6	70.3
Female	74.5	74.2	73.8	73.5	72.9
8. Nuptiality					
Crude marriage rate (per 1000 population)					
Total	15.3	14.9	14.7	14.6	14.3
Rural	17.7	17.3	17.2	18.1	17.7
Urban	12.2	11.9	11.5	10.2	10.1
Marital Status of Population Aged 10+ (percent)					
Male					
Never Married	38.3	38.9	39.1	38.6	39.0
Currently Married	60.0	59.3	59.4	59.9	59.4
Widowed/ Divorced/ Separated	1.7	1.8	1.5	1.5	1.5
Female					
Never Married	25.5	25.1	25.6	26.2	26.3
Currently Married	63.2	63.9	63.6	63.3	63.5
Widowed/Divorced/Separated	11.3	11.0	10.8	10.5	10.1
Mean Age at First Marriage					
Male					
Total	24.2	24.2	24.4	25.1	25.2
Rural	23.7	23.6	23.9	24.5	24.7
Urban	25.1	25.3	25.2	26.2	26.3
Female					
Total	18.7	18.5	18.6	18.4	18.4
Rural	18.1	17.9	18.0	17.9	17.9
Urban	19.8	19.7	19.7	19.7	19.6
Mean Age at Marriage					
Male					
Total	25.2	25.3	25.5	26.2	26.3
Rural	24.7	24.7	25.0	25.7	25.8
Urban	26.1	26.4	26.3	27.3	27.4
Female					
Total	19.1	18.9	18.9	18.8	18.8
Rural	18.5	18.3	18.3	18.3	18.3
Urban	20.1	20.0	20.1	19.9	19.9
Singulate Mean Age at Marriage					
Male					
Total	26.1	26.3	26.0	25.6	25.7
Rural	25.5	25.6	25.3	25.0	25.1
Urban	26.9	27.1	26.7	26.4	26.5
Female					
Total	20.8	20.5	20.7	20.3	20.3
Rural	20.1	19.7	20.0	19.7	19.7
Urban	21.6	21.4	21.4	21.2	21.1

Indicators	2020	2019	2018	2017	2016
Median Age at Marriage					
Male					
Total	24	24	24	25	25
Rural	23	23	24	25	24
Urban	25	25	25	26	27
Female					
Total	18	18	18	18	18
Rural	17	17	18	18	18
Urban	19	19	19	19	19
9. Internal Migration					
Migration Rate (Per 1000 population)					
In-migration Rate	71.0	72.4	72.8	73.8	76.7
Rural In-migration	37.4	36.5	38.6	37.8	39.5
Rural to Rural	32.7	32.2	33.7	32.7	34.5
Urban to Rural	4.7	4.3	4.9	5.0	5.0
Urban In-migration	109.1	117.1	115.2	119.4	123.0
Rural to Urban	31.3	29.7	30.6	30.3	30.3
Urban to Urban	77.8	87.4	84.6	90.2	92.6
Out-migration Rate	70.3	72.7	72.4	74.3	78.5
Rural out-migration	38.3	39.1	39.5	43.5	47.5
Urban out-migration	110.6	114.5	113.1	113.3	117.2
10. Contraceptive Usage					
Contraceptive Prevalence Rate (percent)					
Total	63.9	63.4	63.1	62.5	62.3
Rural	63.1	62.7	62.4	59.4	59.3
Urban	64.7	64.4	64.0	66.3	65.9
Contraceptive Prevalence Rate by Method					
Any Method	63.9	63.4	63.1	62.5	62.3
Modern Method	62.3	62.1	61.6	59.2	58.4
Traditional Method	1.6	1.3	1.5	3.3	3.9
11. Disability					
Crude Disability Rate (per 1000 population)					
Both Sexes	8.5	8.4	8.5	8.9	9.0
Male	9.3	9.2	9.3	9.8	9.8
Female	7.6	7.6	7.7	8.0	8.3
12. HIV/AIDS					
Percent who know at least one mode of transmission of HIV/AIDS from mother to child	71.5	70.1	68.9	68.8	66.9
Percent who know all modes of transmission of HIV/AIDS from mother to child	36.1	35.5	34.6	33.5	29.1
13. Household Characteristics					
Household Size	4.3	4.2	4.2	4.2	4.3
Headship (Percent)					
Male Headed HH	85.0	85.4	85.8	85.8	87.2
Female Headed HH	15.0	14.6	14.2	14.2	12.8
Access to Water (percent)					
Drinking (Tap & Tube well)	98.3	98.1	98.0	98.0	98.0
Source of Light (percent)					
Electricity	96.2	93.5	90.1	85.3	81.2
Solar	2.4	3.3	4.8	5.8	5.6
Kerosene	1.2	2.9	5.0	8.8	13.0
Others	0.2	0.3	0.1	0.1	0.2

Indicators	2020	2019	2018	2017	2016
Toilet Facility (percent)					
Sanitary	81.5	81.5	78.1	76.8	75.0
Others	17.2	17.0	19.9	20.6	22.3
None	1.3	1.5	2.0	2.6	2.7
14. Literacy					
Literacy Rate of Population 7+ yrs (percent)					
Total					
Both Sexes	75.2	74.4	73.2	72.3	71.0
Male	77.4	76.5	75.2	74.3	73.0
Female	72.9	72.3	71.2	70.2	68.9
Rural					
Both Sexes	69.7	69.1	67.6	66.5	65.5
Male	72.2	71.5	69.7	68.6	67.7
Female	67.1	66.7	65.5	64.4	63.3
Urban					
Both Sexes	82.0	81.0	80.1	79.5	77.7
Male	83.9	82.8	82.0	81.5	79.6
Female	80.1	79.2	78.2	77.5	75.8
Adult Literacy Rate of Population 15+ yrs (percent)					
Total					
Both Sexes	75.6	74.7	73.9	72.9	72.3
Male	78.2	77.4	76.7	75.7	75.2
Female	73.0	71.9	71.2	70.1	69.5
Rural					
Both Sexes	69.8	68.4	67.3	66.1	65.4
Male	72.4	71.4	70.3	69.0	68.4
Female	67.2	65.5	64.4	63.2	62.4
Urban					
Both Sexes	82.8	82.2	81.7	81.1	80.7
Male	85.4	84.7	84.3	83.8	83.3
Female	80.1	79.7	79.2	78.4	77.9
15. Religious Composition					
Religious Composition (percent)					
Muslim	88.4	88.4	88.4	88.4	88.4
Others	11.6	11.6	11.6	11.6	11.6
16. Proportion of individuals who own a mobile telephone					
Both sexes	75.4	-	-	-	-
Male	87.6	-	-	-	-
Female	63.4	-	-	-	-
17. Proportion of individuals (age 15+ yrs)using the Internet					
Both sexes	43.5	-	-	-	-
Male	52.7	-	-	-	-
Female	34.3	-	-	-	-
18. National Population (Estimated) : 1st January 2021 (in million)					
Both sexes	169.11				
Male	84.64				
Female	84.47				

Bangladesh Bureau of Statistics (BBS) introduced Sample Vital Registration System (SVRS) in 1980 to study the changes in the demographic scenarios of Bangladesh during the intercensal periods. Initially, the coverage was limited to 103 primary sampling units (PSU) each consisting of 250 households. Subsequently, the number of sample PSUs was raised to 210 in 1983 and further to 1000 in 2002. To meet the data requirements of the planners and policymakers, the number of PSUs was increased to 1500 in 2013. An Integrated Multi-Purpose Sample (IMPS) Design, introduced in 2012, is being followed since 2013 SVRS, which is also applicable to the last four rounds of SVRS since 2014. As many as 11 data recording schedules are currently being used to collect data on household and household population characteristics, birth, death, migration, marriage, disability, HIV/AIDS and contraceptive use.

The recording of vital events in the sample area is made possible through a dual recording system proposed by Chandrasekaran and Deming. Under this system, vital events are collected as and when they occur by a locally recruited female registrar called Local Registrar (System 1). On the other hand, under a second system (System 2) another group of officials from the District/Upazila Statistical Office of BBS also collect the data independently from the same area on a quarterly basis. Having gathered the filled-in questionnaires from the two systems, data are matched in the headquarters by a pre-designed matching criteria by a group of trained officials and the demographic rates and ratios are estimated using the adjusted number of events. In order to find denominators for the estimation of demographic parameters, a detailed household survey is conducted at the beginning of every year covering basic household and population characteristics. The matching of the vital events suggested that about 1.17 percent of the births and another 1.14 percent of the deaths were missed by both the systems in 2020.

Quality of Age Data

The data collected in SVRS have been evaluated to shed light on the quality of data. Particular attention has been given to assess the quality of age data, which are of primary importance in estimating most of the vital rates and ratios. Three popular indices viz. Myer's index, Whipple's index and UN Age-Sex Accuracy Index also called UN Joint Score have been computed from reported age distributions for this purpose. These indices have pointed out the fact that the quality of age reporting in SVRS has improved over the last five years. The detailed results of this assessment have been presented in Chapter II of this report.

Household and Demographic Characteristics

The enumerated population in the registration area shows a sex ratio of 100.2 resulting from a total 643252 males and 635543 females. The overall sex ratio has shown only one percentage point decline over the last five years, from 100.3 in 2016 to 100.2 in 2020. The age structure of the population is still conducive to high fertility with 28.1 percent of its total population being under age 15. The dependency ratio fell from 54 percent in 2016 to 50 percent in 2020. The crude rate of natural increase fell from 1.36 in 2016 to 1.30 in 2020.

The average household size dropped from 4.3 in 2016 to 4.2 in 2019, which again marked a marginal increase of 0.1 in one year reaching at 4.0. Household headship is disproportionately shared by males and females. Fifteen percent of the females as opposed to 85 percent of the males share the responsibility of the households as heads. These were to the extent of 85.4 percent and 14.6 percent in 2019.

Adult literacy rate for population aged 15+ has shown an increase from 72.3 percent in 2016 to 75.6 in 2020. A similar increase was noted in literacy rate for population aged 7 years and above: from 71.0 percent in 2016 to 75.2 percent in 2020. In both the cases, males are more in proportions to

dominate over the females in literacy rates, the difference being 5.2 percentage points in the case of literacy rate of populations 15+ years and 4.5 percentage points in the case of population aged 7 years and above.

The survey findings on adult literacy (15+) further reveal that the urban residents are about 19 percent more likely than their rural counterparts to be literate. This amounts to about 18 percent in the case of population aged 7 years and over. However, the rural population as opposed to the urban population experienced a more accelerated increase (of about two times) in adult literacy since 2016. This is true for both the populations with respect to the defined age limits of. 7 years and above and 15 years and above.

Fertility

Crude birth rate is 18.1 per thousand population in 2020 as compared to 18.3 showing no change in the rate since 2019. The CBR fell from 18.7 in 2016 to 18.1 in 2020, demonstrating an average annual decrease of less than 0.64 percent over the last five years since 2016. The rural CBR, as expected, is higher than the urban CBR by a margin of 5.1 births per thousand population: 20.4 versus 15.3. The general fertility rate (GFR) worked out to 65 per thousand women with a much higher rate of 76 in the rural areas as compared to a rate of 53 in the urban areas. This rate remained nearly constant over the last five years. The total fertility rate (TFR) remained within the narrow range of 2.04 − 2.05.

Mortality

The crude death rate (CDR) worked out to 5.1 per 1000 population in 2020, showing virtually no change over the last five years or so. In the rural area, the CDR is higher (5.2) than in the rate (4.4) in urban area. The infant mortality rate (IMR) recorded a moderate fall from 28 per thousand live births in 2016 to 21 per thousand live births in 2020. Keeping consistency with the previous years, the IMR for males remained slightly higher than their female counterparts. Female infants experienced a somewhat steeper decline (28.6%) than male infants (18.5%). Urban infants were less in proportion (20 per thousand live births) to experience death than the rural infants (21 per thousand live births).

The neo-natal mortality rate fell from 19 deaths per 1000 live births in 2016 to 15 deaths per 1000 live births in 2020. Area of residence failed to record any difference in the neo-natal mortality rate (15 in both the areas).

Post-neonatal mortality rate (PNMR) in 2020 recorded a minor decline over the last 5 years: from 9 per 1000 live births in 2016 to 6 per 1000 live births in 2020. Child (1-4 years) mortality has been estimated to be 1.7 deaths per 1000 children since 2018. Under-five mortality has demonstrated a moderate decline from 35 deaths per 1000 live births in 2016 to 28 deaths in 2020. In line with our previous findings on child and infant mortality, male children underwent more health hazards leading to their deaths than their female counterparts. This is evident from the differential death rates by sex.

Maternal mortality ratio has shown a consistent fall over the last five years, from 1.78 maternal deaths per 1000 live births in 2016 to 1.63 in 2020, a 1.68% decline annually over a period of 5 years. Urban women are in an advantageous position with a lower risk of dying (1.38) than their rural counterparts (1.78).

The overall life expectancy at birth has increased by a narrow margin of 0.2 years over the last one year: from 72.6 years in 2019 to 72.8 in 2020 with a higher longevity of 74.5 years for females and 71.2 years for male. As our records say, the gain in life expectancy is somewhat pronounced among the females since 2001 resulting from a higher survival advantage in favor of females during the last 20 years.

Age at marriage

Analysis of age at first marriage data reveals that in recent time mean, age at first marriage specially of males by and large has gone down marginally. For example, the age at first marriage for males as computed in 2016 was 25.2 years, which decreased to 24.2 years in 2020. On the contrary, the female age at first marriage has shown a modest increase from 18.4 years in 2016 to 18.7 in 2020. The overall impression from the survey findings is that the age at marriage neither for males nor for females has not changed over the last five years. It is particularly true for males.

Contraceptive usage

The overall contraceptive prevalence rate is 63.9 percent in 2020, which demonstrates a moderate increase of 0.5 percentage points over its rate in 2019. The rate reported in 2016 was about of the same magnitude, 62.3 percent, implying a near constancy in the rate during the last 5 years. As expected, the urban women as compared to their rural counterparts are more likely (64.7%) to adopt contraceptives than their rural counterparts (63.1%). Why there has been an increase of 6.7% in the modern method use over the last 5 years, decorresponding decrease in traditional method is about 60%.

Migration

Both in-migration and out-migration rates have exhibited a decrease in recent times. For example, while the overall in-migration rate was 76.7 percent in 2016, it came down to 71 percent in 2020. The same feature is observed in the case of the out-migration rate: from 78.5 percent in 2016 to 70.3 percent in 2020.

Disability

The overall disability rate as estimated from the 2020 round of survey is 8.5 per thousand populations displaying significantly higher risk (9.3) among the males than among the females with a risk of 7.6 per thousand population. The reported data further showed that the prevalence of disability remained stable over the last five years irrespective of sex.

Knowledge on HIV/AIDS

The SVRS went on to gather data on the knowledge of the females of reproductive age on the modes of transmission of HIV/AIDS. Correct knowledge of at least one mode of transmission of HIV/AIDS is prevalent among 81.5 percent women as observed in the survey of 2020. The investigation showed that 71.5 percent of the respondents knew at least one mode of transmission of HIV/AIDS from mother to child in 2020. This is 1.4 percentage points higher than its previous year's level. On the other hand, while 29.1 percent of women knew about all modes of transmission of HIV/AIDS in 2016, this increased to 36.1 percent in 2020.