MINISTRY OF INTERNALLY DISPLACED PERSONS FROM THE OCCUPIED TERRITORIES, LABOUR, HEALTH AND SOCIAL AFFAIRS OF GEORGIA

NATIONAL CENTRE FOR DISEASE CONTROL AND PUBLIC HEALTH

HEALTH CARE

STATISTICAL YEARBOOK

2019

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Georgia

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2020


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ეროვნული ცენტრი

PREFACE

The yearbook “Health Care” represents an annual edition of the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs containing the basic statistical indicators of the population health status and resources of the health care system. This type of periodical editions has been published since 1996.

The yearbook is prepared on the basis of the data collected by the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs and the National Center for Disease Control and Public Health named after L. Sakvarelidze of the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia.

Data are presented using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems.

This yearbook describes health services, maternal and child health status, and data on communicable and noncommunicable diseases according to the classes of diseases, such as infectious and parasitic diseases, neoplasms, the circulatory system diseases, endocrine diseases, the respiratory system diseases, the genitourinary system diseases, mental and behavioral disorders, as well as basic demographic data, and other.

The yearbook discusses the population health status, maternal and child health, communicable and noncommunicable diseases, and numbers of cases of diseases and corresponding indicators by classes of diseases: infectious and parasitic, neoplasms, circulatory, endocrine, respiratory, genitourinary, mental diseases, and etc.

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Sustainable Development Goals

In 2015, Sustainable Development Goals (SDGs) have been adopted at the UN Summit after a partial achievement of the Millennium Development Goals – MDGs, to maintain and further advance the successes.

SDGs represent a continuation of the Millennium Development Goals until 2030. The 17 goals of sustainable development are broader and more ambitious than the Millennium Development Goals and represent the agenda that ensures that "no one should be left behind". SDGs are aimed at the eradicating poverty, prioritizing of health, education, food security and accessibility and cover a wide range of issues such as economics, social and environmental goals. Aspiring more peaceful and engaged societies. The third strategic goal is to achieve healthy living and well-being for people of all ages, ensuring access to safe and effective medicines and vaccines, universal access to healthcare services, which is a major priority for global health.

In 2018, countries have integrated SDGs into their programs and have achieved progress in the framework of "Health 2020" policy. Georgia shares SDGs. "Health 2020" and prevention and control of noncommunicable diseases global initiatives and is actively involved in monitoring the progress of the achievement of the abovementioned goals.

A global SDG index was developed to measure a progress toward the SDGs. According to this index, Georgia ranks 58th out of 166 countries and is 1.4% lower, compared to the regional average index (Figure 1.1 – 1.3).

Figure 1.1 Sustainable Development Goals, Global Index, 2019

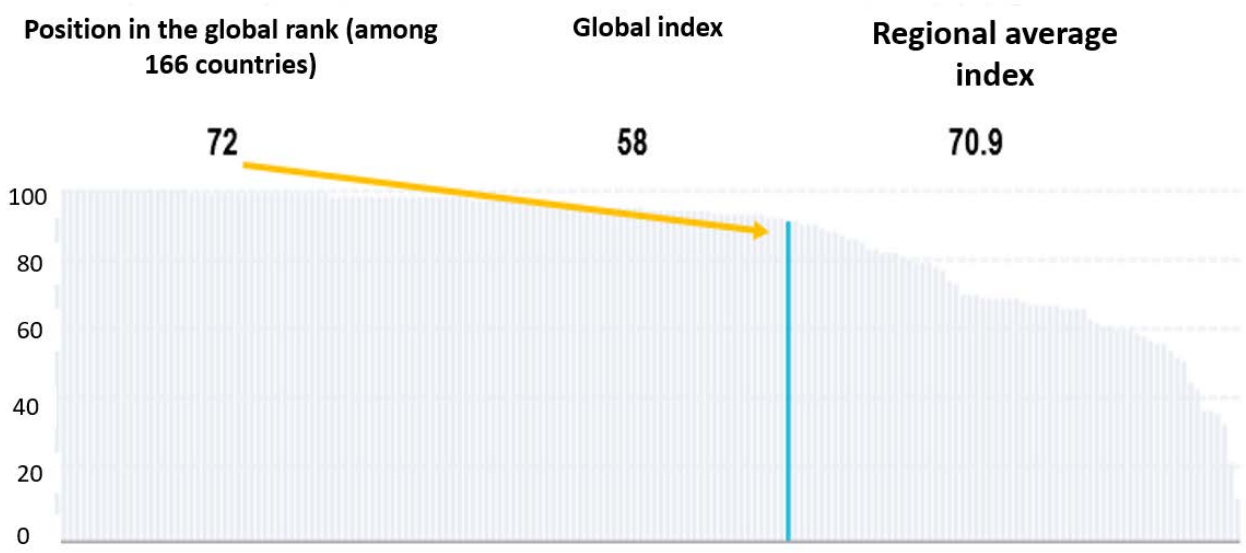


Figure 1.2 Sustainable Development Goals, Average Performance Index, 2019

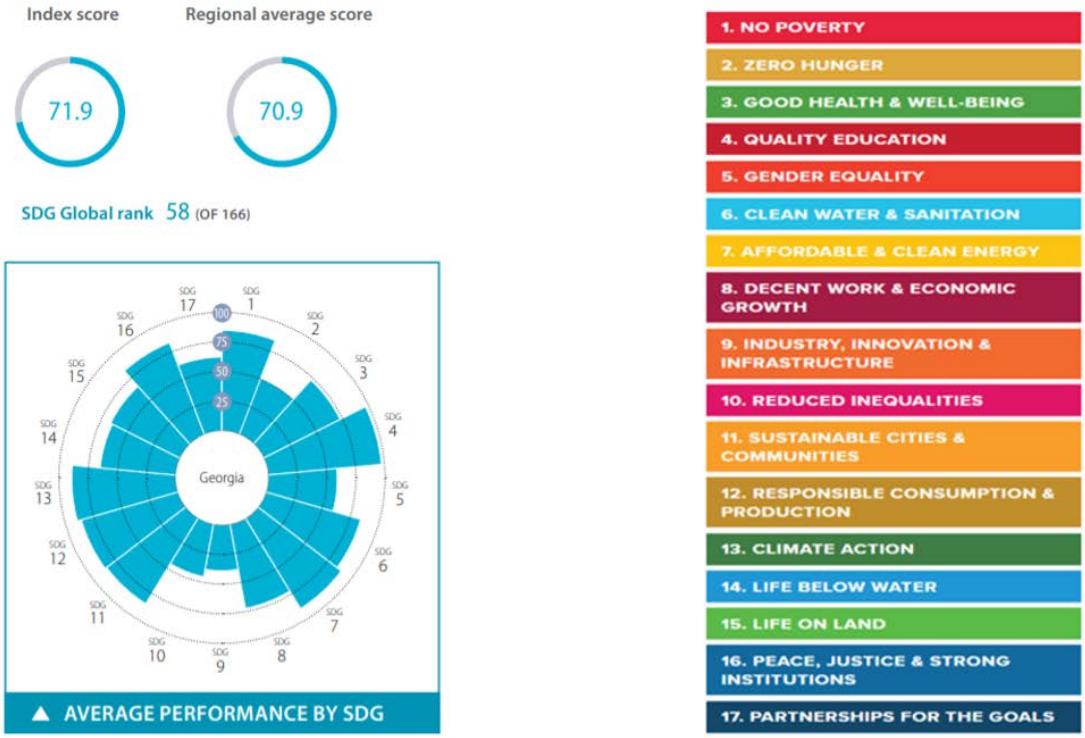


Figure 1.3 Current estimates, Georgia 2019

Source: https://dashboards.sdgindex.org/static/countries/profiles/Georgia.pdf

Table 1.1 SDG Indicators, Estimates, Georgia, 2020[1]

	Estimate	Existing stage	Trend
SDG3 Goal 3 – Good Health and Well-Being			
Maternal mortality rate (per 100000 live births)	25.0		
Neonatal mortality rate (per 1000 live births)	5.9		
Mortality rate, under-5 (per 1000 live births)	9.8		
Incidence of tuberculosis (per 100000 population)	80		
New HIV infections (per 1000 uninfected population)	0.2		
Age-standardized death rate due to cardiovascular disease, cancer, diabetes, or chronic respiratory disease in adults aged 30-70 years (%)	24.9		
Age-standardized death rate attributable to household air pollution and ambient air pollution (per 100000 population)	102		
Traffic deaths (per 1000 live births)	15.3		
Life expectancy at birth (years)	72.6		
Adolescent fertility rate (births per 1000 adolescent females aged 15 to 19)	46.4		
Births attended by skilled health personnel (%)	99.9		
Percent of surviving infants who received 2 WHO recommended vaccines (%)	93		
Universal health coverage (0-100)	66		
Subjective well-being (average ladder score, worst 0-10 best)	4.9		

Source: https://dashboards.sdgindex.org/static/countries/profiles/Georgia.pdf

[1] *May not match some national data*

Chapter 2.

Demography

Vital statistics[2]

Georgia consists of 11 administrative regions and 64 municipalities.

Tabe 2.1 Main indicators of vital statistics, Georgia

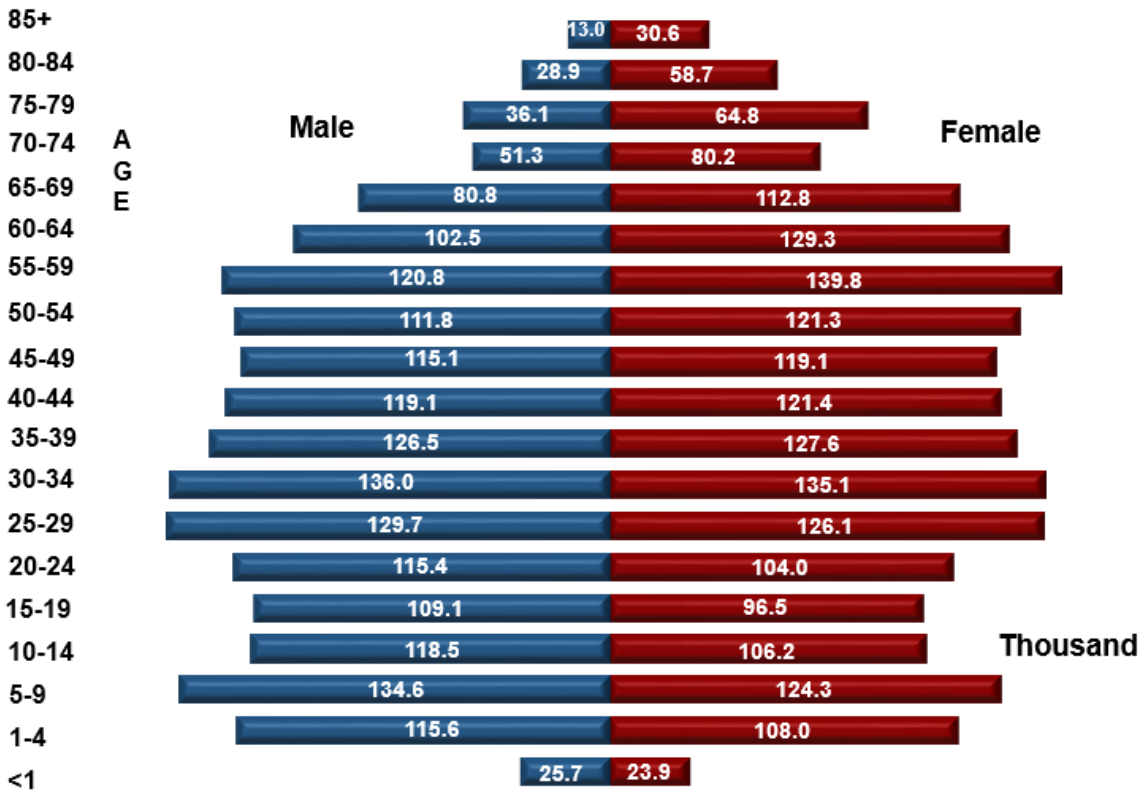
	2018		2019	
	Number of cases	Indicator	Number of cases	Indicator
Number of life birth and birth rate per 1000 population	51138	13.7	48 296	13.0
Natural population growth and rate per 1000 population	4614	1.2	1 637	0.4
Number of death and mortality rate per 1000 population	46 524	12.5	46 659	12.5
Infant mortality number and indicator per 1000 life birth	416	8.1	380	7.9
Stillbirth number and indicator per 1000 births	436	8.5	457	9.4
Marriages number and indicator per 1000 population	23 202	6.2	23 285	6.3
Divorces number and indicator per 1000 population	10 288	2.8	11 205	3.0
Migration growth and migration balance	-10 783	-2.9	-8 243	-2.2

[2] *This chapter contains data provided by the National Statistics Office of Georgia (GeoStat)*

Population

In 2019, the annual mid-year population number was 3,720,161. Female population constituted 51.9% of the total number; males – 48.1% (Figure 2.1).

Figure 2.1 Age and sex pyramid, Georgia, 2019



Source: National Statistics Office of Georgia

Table 2.2 Mid-year population by age and sex groups (in thousands), Georgia

	2018			2019		
Age	**Both sexes**	**Males**	**Females**	**Both sexes**	**Males**	**Females**
-1	52.1	27.0	25.1	49.6	25.7	23.9
1-4	226.8	117.2	109.6	223.6	115.6	108.0
5-9	256.0	133.5	122.5	258.9	134.6	124.3
10-14	214.8	113.7	101.1	224.7	118.5	106.2
15-19	207.2	109.8	97.4	205.6	109.1	96.5
20-24	222.6	116.5	106.2	219.5	115.4	104.0
25-29	267.9	135.2	132.7	255.8	129.7	126.1
30-34	272.5	136.7	135.8	271.0	136.0	135.1
35-39	252.0	124.9	127.1	254.0	126.5	127.6
40-44	241.7	119.6	122.1	240.5	119.1	121.4
45-49	234.9	114.7	120.2	234.2	115.1	119.1
50-54	240.5	114.8	125.7	233.1	111.8	121.3
55-59	262.0	120.9	141.1	260.6	120.8	139.8
60-64	226.1	99.7	126.4	231.8	102.5	129.3
65-69	189.6	79.0	110.6	193.6	80.8	112.8
70-74	116.2	45.5	70.7	131.5	51.3	80.2
75-79	117.2	41.9	75.2	100.9	36.1	64.8
80-84	82.5	27.8	54.7	87.6	28.9	58.7
85+	44.0	13.0	31.1	43.5	13.0	30.6
Total	**3726.5**	**1791.2**	**1935.3**	**3,720.2**	**1,790.6**	**1,929.6**

Table 2.3 Mid-year population by age and sex groups (thousand), Georgia

Age	Both sexes	Males	Females
2010			
Total	3786.7	1804.3	1982.3
-15	685.2	362.7	322.6
15-64	2566.2	1237.6	1328.6
65+	535.3	204.1	331.2
2011			
Total	3756.4	1789.7	1966.7
-15	683.7	361.3	322.4
15-64	2545.5	1228.3	1317.2
65+	527.2	200.2	327.0
2012			
Total	3728.9	1777.0	1951.8
-15	681.8	359.7	322.1
15-64	2522.1	1218.6	1303.5
65+	525.1	198.8	326.3
2013			
Total	3717.7	1773.1	1944.5
-15	683.4	360.1	323.3
15-64	2508.1	1214.2	1293.9
65+	526.2	198.9	327.3
2014			
Total	3719.4	1775.4	1944.1
-15	694.1	364.9	329.1
15-64	2496.2	1210.5	1285.7
65+	529.1	199.9	329.3
2015			
Total	3725.3	1780.4	1944.8
-15	711.0	373.1	337.9
15-64	2480.4	1205.6	1274.8
65+	533.9	201.7	332.2
2016			
Total	3727.5	1784.7	1942.8
-15	726.1	380.3	345.8
15-64	2463.6	1201.5	1262.1
65+	537.9	202.9	335.0
2017			
Total	**3728.0**	**1788.6**	**1939.4**
-15	738.9	386.3	352.6
15-64	2446.3	1197.7	1248.6
65+	542.8	204.6	338.2
2018			
Total	**3,726.5**	**1,791.2**	**1,935.3**
-15	749.7	391.4	358.3
15-64	2427.4	1192.7	1234.7
65+	549.4	207.1	342.3
2019			
Total	3,720.2	1,790.6	1,929.6
-15	756.8	394.4	362.3
15-64	2406.2	1186.0	1220.2
65+	557.2	210.2	347.0

Natality

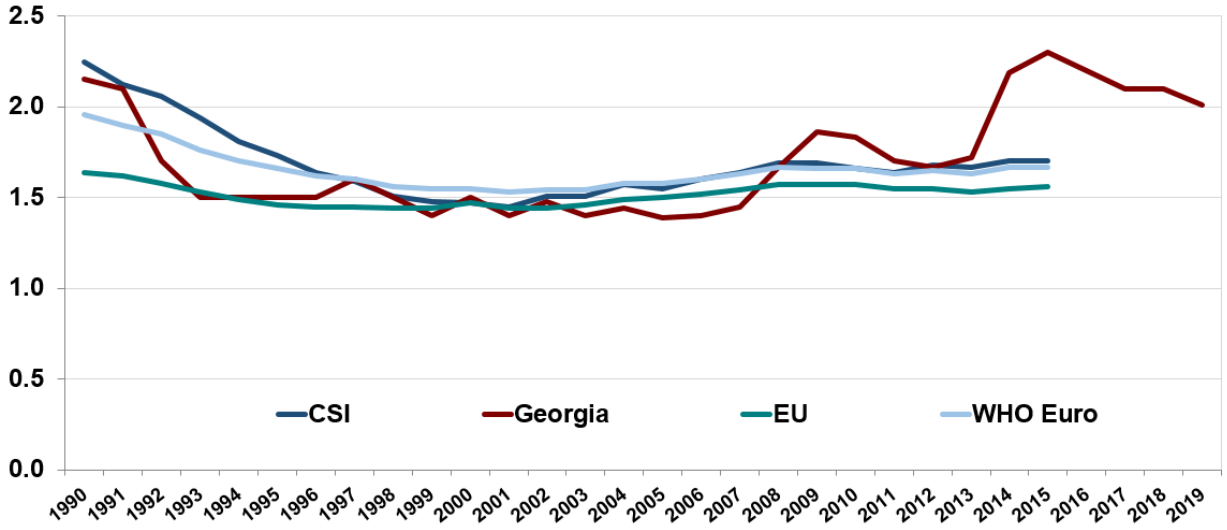
In 2019, the registered number of live births was 48296 (in 2018 – 51138), total birth rate was 13.0 per 1000 population. The shares of live births by birth the order were as follow: 1st – 38.1%, 2nd – 36.5%, 3rd – 18.8%.

Table 2. 4 Number of live births by birth order, Georgia

Year	Birth order					Total
	I	II	III	IV	V+	
2008	28978	16841	5040	1098	485	52442
2009	29953	18874	5959	1257	525	56568
2010	27303	19698	6338	1301	590	55230
2011	24559	19293	5989	1166	558	51565
2012	23075	19044	6065	1269	516	49969
2013	22478	18910	6387	1353	529	49657
2014	26355	23171	8724	1646	644	60635
2015	24684	22644	9189	1878	719	59249
2016	22949	21563	9389	1964	704	56569
2017	20742	20435	9291	2073	677	53293
2018	19362	19511	9291	2073	718	51138
2019	**18421**	**17645**	**9063**	**2079**	**777**	**48296**

In 2014, total fertility rate (TFR) was 1.3-fold higher, compared to the year 2013. This was caused by a decreased number of population, shown by the results of the National Census of population. In 2019, the TFR was 2.01 (in 2018 – 2.1) (Figure 2.2).

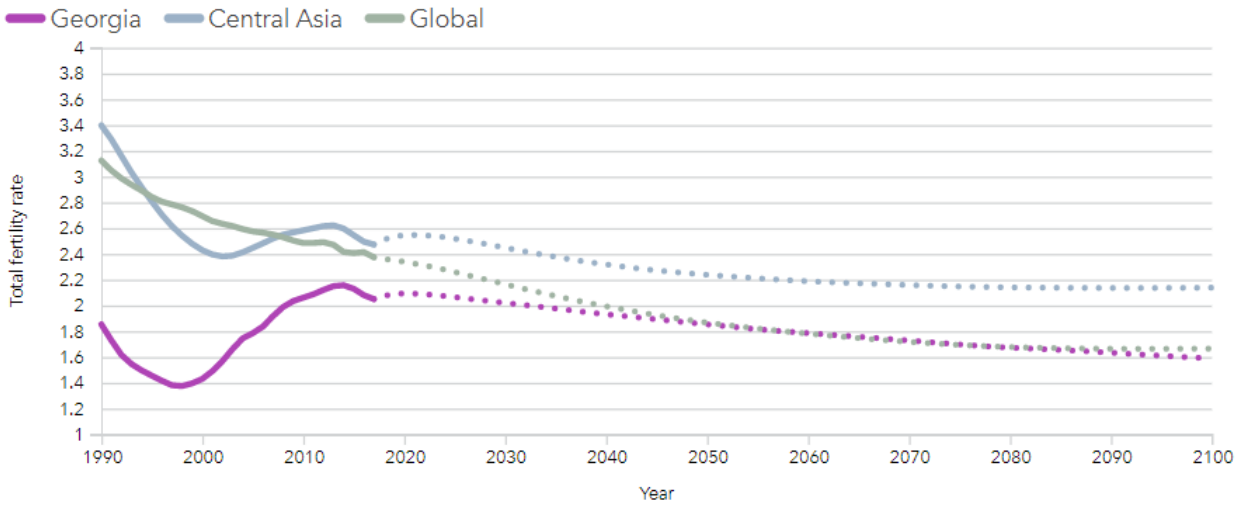
Figure 2.2 Total Fertility Rate (TFR)



Source: National Statistics Office of Georgia ; WHO HFA Database

The Institute for Health Metrics and Evaluation (IHME) at the University of Washington predicts a declining trend of the total fertility rate in Georgia. Regional and global trends are cited for comparison (Figure 2.3).

Figure 2.3 Total Fertility Rate (TFR)



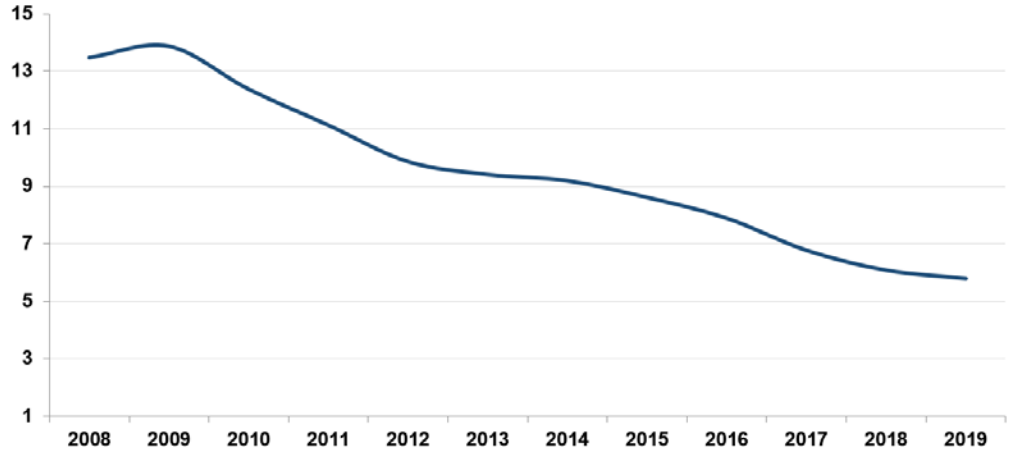
	1990	2017	2100
Georgia	1.9	2.0	1.6
Central Asia	3.4	2.5	2.1
Global	3.1	2.4	1.7

Tabe 2.5 Age-specific fertility and population reproduction rates, Georgia

Year	Age of the mother							Total fertility rate	Reproduction rate	
	-20	20-24	25-29	30-34	35-39	40-44	45+		Gross	Net
2008	48.0	129.1	100.8	58.7	24.8	5.6	0.3	1.8	0.9	0.8
2009	56.1	138.5	111.5	63.4	26.8	5.8	0.3	2.0	1.0	0.9
2010	52.2	132.6	111.0	67.0	29.1	6.8	0.3	2.0	1.0	0.9
2011	47.1	125.0	106.9	63.5	28.0	6.3	0.3	1.9	0.9	0.9
2012	43.0	120.3	105.5	65.6	28.5	6.9	0.4	1.9	0.9	0.9
2013	42.2	119.1	106.2	67.3	30.5	7.2	0.4	1.9	0.9	0.9
2014	51.5	144.7	131.3	86.5	38.9	9.2	0.7	2.3	1.1	1.1
2015	48.4	144.1	128.0	87.7	41.5	10.6	0.7	2.3	1.1	1.1
2016	43.4	134.9	127.5	86.4	43.7	11.2	0.8	2.2	1.1	1.1
2017	36.2	126.1	126.9	84.5	44.0	10.5	0.5	2.1	1.0	1.0
2018	32.3	121.9	127.5	85.4	44.3	11.0	0.6	2.1	1.0	1.0
2019	**29.4**	**112.1**	**121.3**	**81.2**	**44.6**	**12.4**	**1.5**	**2.0**	**1.0**	**1.0**

The trend toward decrease of the share of babies, born to women aged under 20, which started in 2010, has continued. In 2019, the share of such babies is 5.8% of total number of live births (Figure 2.4).

Figure 2.4 Share of babies, born to women aged under-20, of total number of live births, Georgia



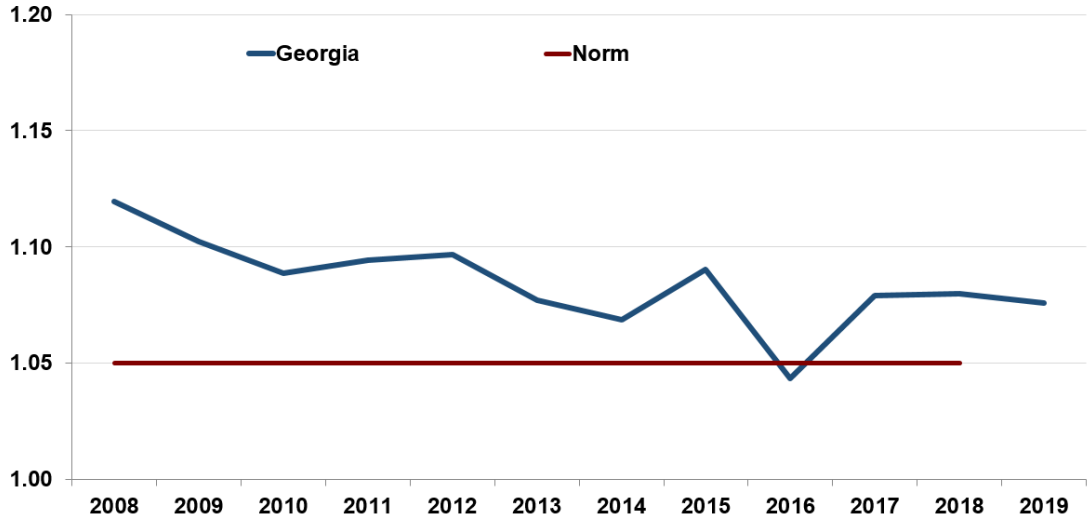
Source: National Statistics Office of Georgia

Tabe 2.6 Number of live births by the age of the mother, Georgia

Year	Total	Age of the mother						
		- 20	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45+
2008	52442	7072	19258	13993	7926	3326	782	85
2009	56568	7853	20381	15457	8473	3544	781	79
2010	55230	6841	19291	15465	8862	3793	893	85
2011	51565	5742	18032	14963	8324	3612	803	89
2012	49969	4930	17116	14762	8558	3634	869	100
2013	49657	4678	16486	14806	8797	3880	897	113
2014	60635	5579	19131	18257	11398	4941	1148	181
2015	59249	5108	17917	17739	11729	5266	1311	179
2016	56569	4467	15650	17613	11706	5539	1386	208
2017	53293	3614	13834	17350	11496	5581	1285	133
2018	51138	3117	12786	16548	11564	5627	1344	152
2019	**48296**	**2839**	**11659**	**15287**	**10969**	**5687**	**1500**	**355**

In 2019, the secondary sex ratio at birth changed slightly, compared to the previous year, and equaled 107.6 (in 2018 – 107.9) (Figure 2.5).

Figure 2.5 Secondary sex ratio at birth, Georgia



Source: National Statistics Office of Georgia

Tabe 2.7 Secondary sex ratio at birth, Georgia

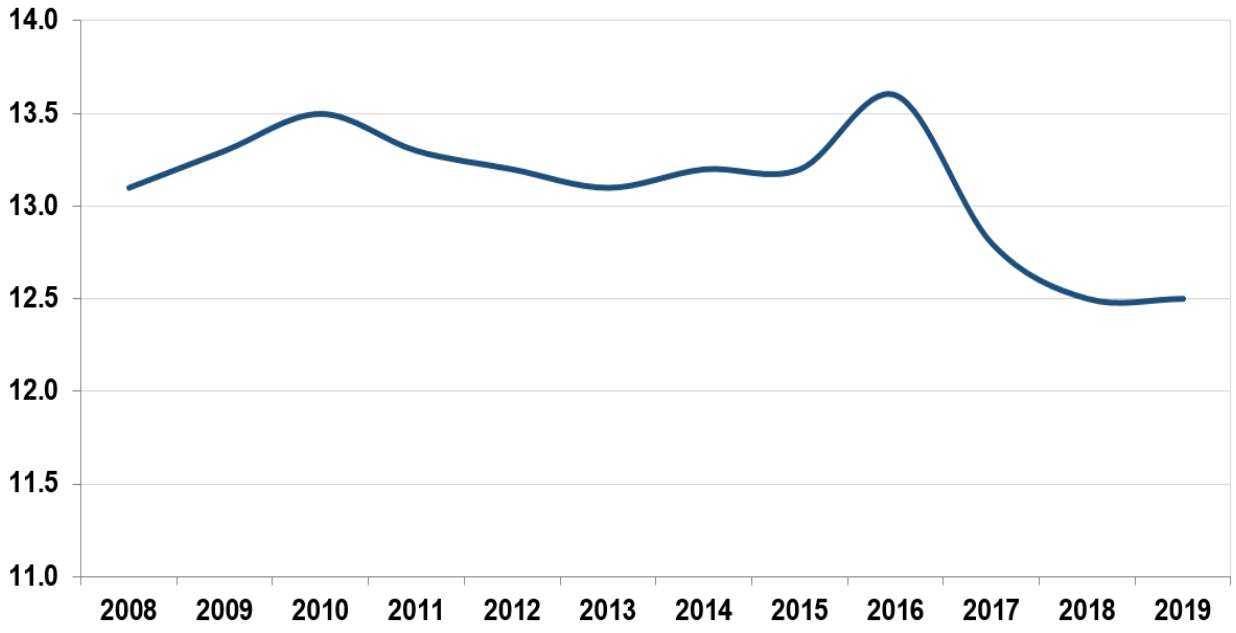
Year	Both sexes	Male	Female	(Male / Female) * 100
2008	52442	27698	24744	111.9
2009	56568	29660	26908	110.2
2010	55230	28787	26443	108.9
2011	51565	26942	24623	109.4
2012	49969	26138	23831	109.7
2013	49657	25747	23910	107.7
2014	60635	31325	29310	106.9
2015	59249	30902	28347	109.0
2016	56569	28887	27682	104.4
2017	53293	27658	25635	107.9
2018	51138	26538	24600	107.9
2019	**48296**	**25029**	**23267**	**107.6**

Mortality

Last few decades, a decrease of mortality and increase of life expectancy were mentioned in the world. Such change is partially associated with the increase of the number of non-fatal cases of noncommunicable diseases, the reduction of mortal cases caused by injuries, better control of risk factors, and early detection and improved management of diseases. In Georgia, similar to developed countries, the share of older population is increasing, which itself is reflected upon the mortality rate.

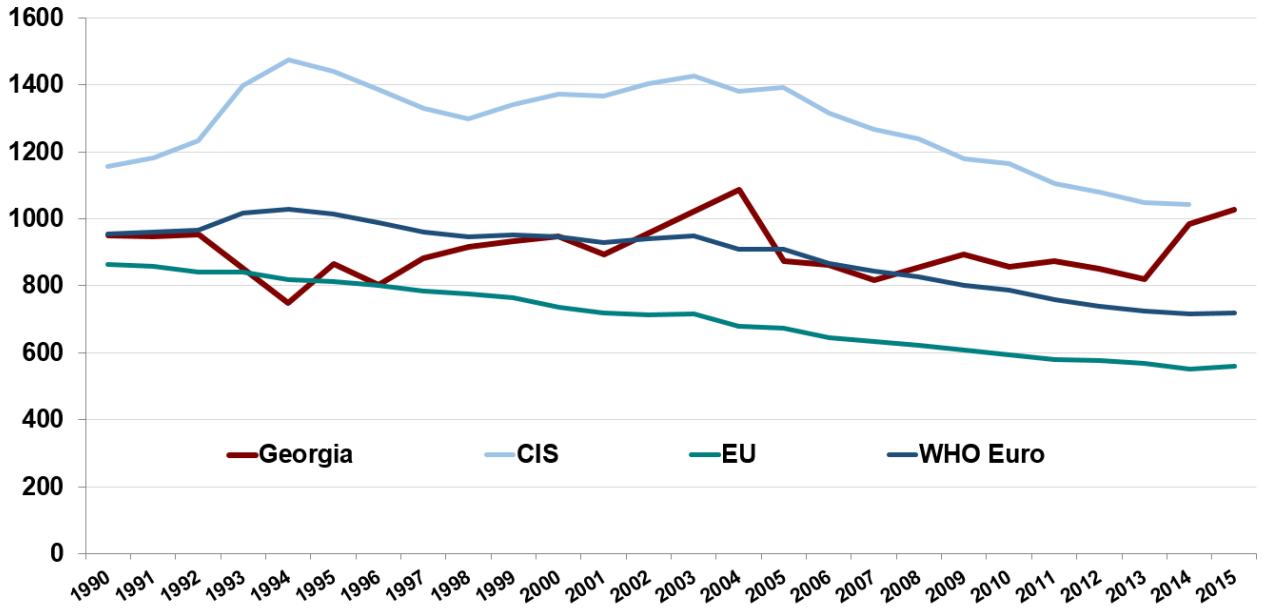
In 2011-2015, according to the National Statistics Office of Georgia, the crude mortality rate was rather stable. In 2018, a trend for decrease, which has started in 2017, continued till 2018, and, in 2019, stayed at the same level (Figure 2.6, 2.7).

Figure 2.6 Crude mortality rate, Georgia



Source: National Statistics Office of Georgia

Figure 2.7 Age standardized mortality rate



Source: WHO HFA Database

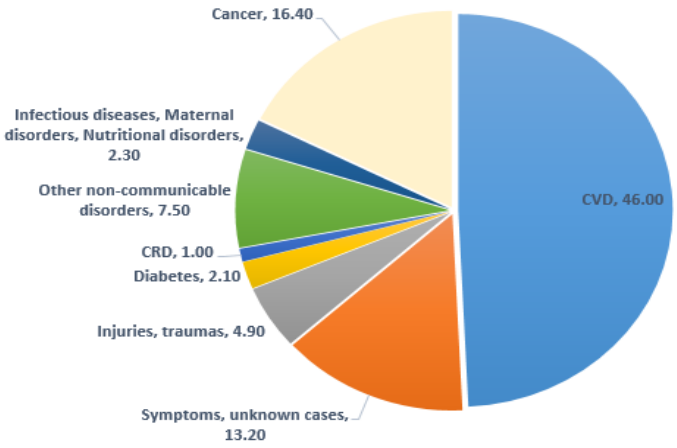
In 2019, 51.5% of the total number of deaths were registered in males, 48.5% - in females;.1.1% of total number of deaths were registered in children under-15, of which 70.2 were in children under-1.

Tabe 2.8 Number of deaths and mortality rates, Georgia, 2019

Age	Number of deaths			Mortality rate per 1000 population		
	Both sexes	Male	Female	Both sexes	Male	Female
-1	380	214	166	7.7	8.3	7.0
1-4	72	40	32	0.3	0.3	0.3
5-9	34	20	14	0.1	0.1	0.1
10-14	55	36	19	0.2	0.3	0.2
15-19	112	85	27	0.5	0.8	0.3
20-24	165	123	42	0.8	1.1	0.4
25-29	221	170	51	0.9	1.3	0.4
30-34	307	242	65	1.1	1.8	0.5
35-39	477	368	109	1.9	2.9	0.9
40-44	696	548	148	2.9	4.6	1.2
45-49	1108	858	250	4.7	7.5	2.1
50-54	1676	1225	451	7.2	11.0	3.7
55-59	2899	2096	803	11.1	17.4	5.7
60-64	3756	2650	1106	16.2	25.8	8.6
65-69	4446	2785	1661	23.0	34.5	14.7
70-74	4464	2539	1925	33.9	49.5	24.0
75-79	6289	2974	3315	62.3	82.3	51.2
80-84	9269	3824	5445	105.8	132.1	92.8
85+	10233	3222	7011	235.0	248.5	229.3
Total	**46659**	**24019**	**22640**	**12.5**	**13.4**	**11.7**

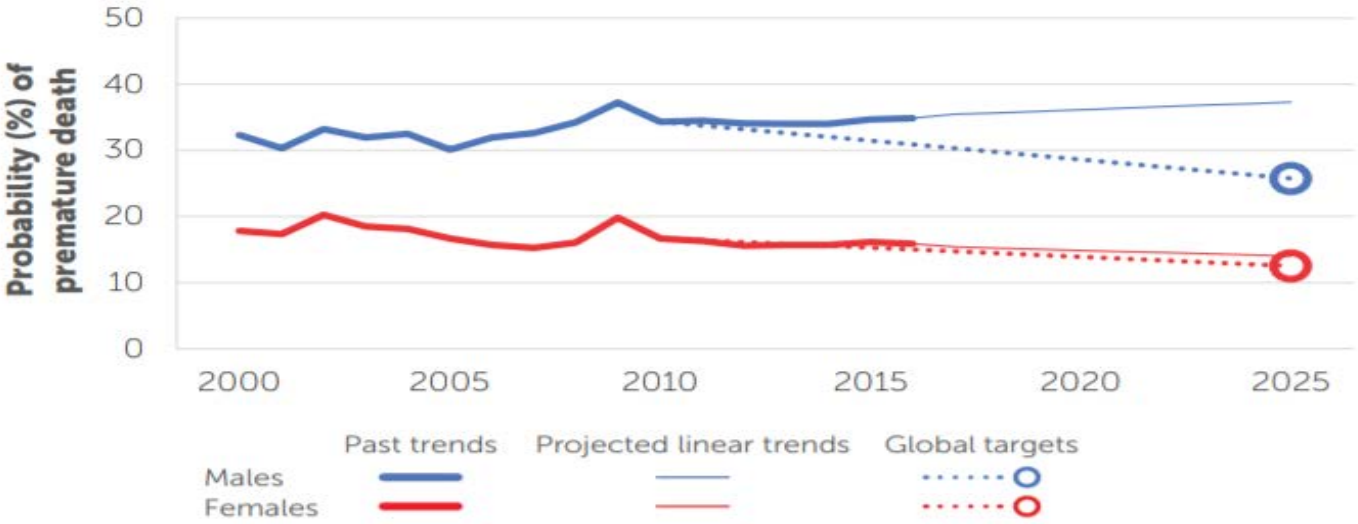
In Georgia, like in the most countries, the burden of mortality is mainly caused by noncommunicable diseases (Figure 2.8).

Figure 2.8 Mortality structure, Georgia, 2019



Source: National Statistics Office of Georgia

Figure 2.9 Risk of premature death related to NCDS (%), 2018



Source: World Health Organization - Noncommunicable Diseases (NCD) Country Profiles, 2018

The data of the Institute for Health Metrics and Evaluation (IHME) at the University of Washington on mortality structure (top 10 causes) and percent change for the period of 2009 – 2019 are shown on the Figure 2,10.

Figure 2.10 Top 10 causes of death, all ages, Georgia

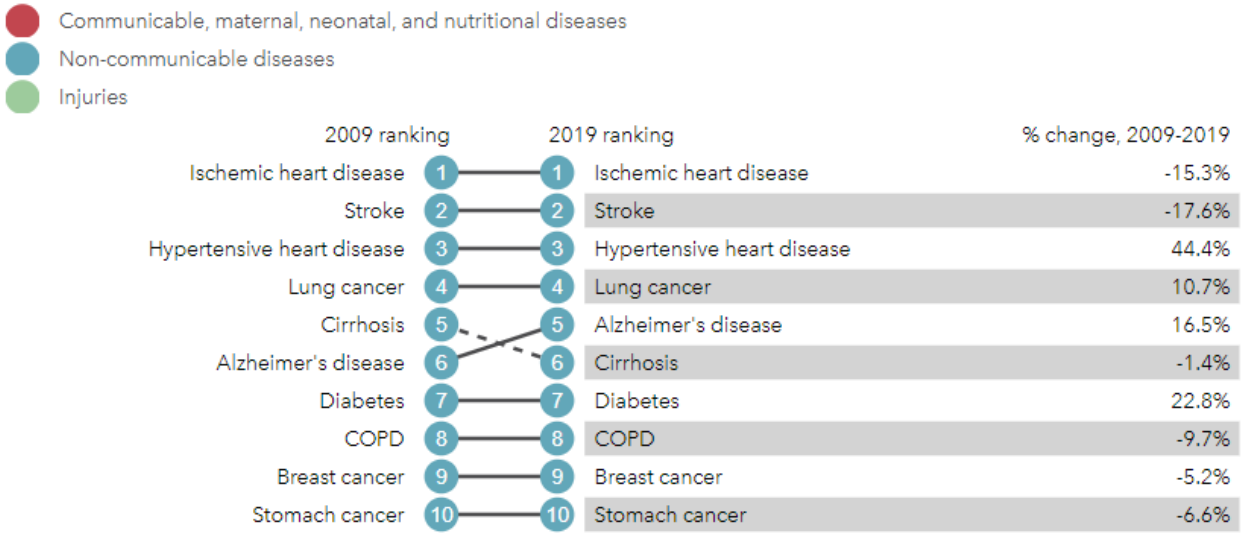
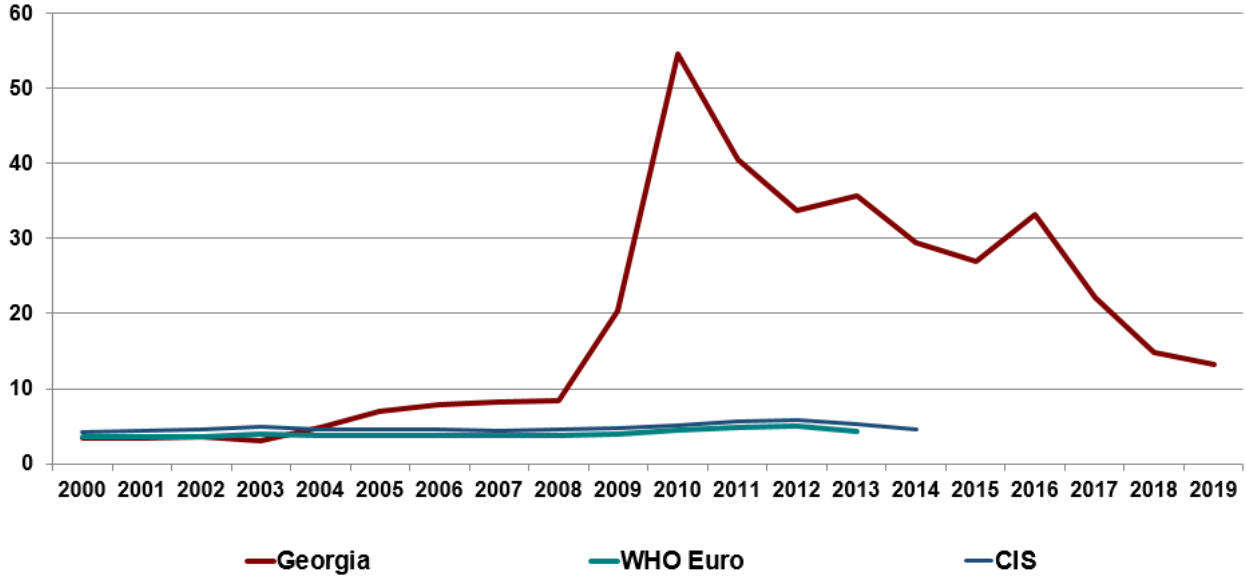


Table 2.9 Mortality by underlying cause of death (rate per 100000 population), Georgia, 2019

	Number	Rate
Total	**46659**	**1254.2**
Certain infectious and parasitic diseases	775	20.8
Neoplasms	7873	211.6
Including cancer	7665	206.0
Diseases of blood and blood-forming organs	426	11.5
Endocrine, nutritional and metabolic diseases	994	26.7
Mental and behavioral disorders	82	2.2
Diseases of the nervous system	685	18.4
Diseases of the eye and adnexa	0	0.0
Ear and mastoid process	0	0.0
Diseases of the circulatory system	21449	576.6
Diseases of the respiratory system	3303	88.8
Diseases of the digestive system	1517	40.8
Diseases of the skin and subcutaneous tissue	14	0.4
Diseases of the musculoskeletal system and connective tissue	11	0.3
Diseases of the urinary system	692	18.6
Pregnancy, childbirth and the puerperium	14	1.7
Certain conditions originating in the perinatal period	265	7.1
Congenital malformations, deformations and chromosomal abnormalities	87	2.3
Ill-defined causes	6177	166.0
Injury, poisoning and certain other consequences of external causes	2295	61.7

A completeness of registration of mortal cases and a correct identification of the underlying causes of death are the main criteria for mortality registration quality assessment. Last years, significant changes of the Georgian system have happened. This was reflected in the international assessments, according to which the completeness of the registration exceeds 95%, although the quality of identifying the underlying causes of death still remains a challenge. The quality of identifying the underlying causes of death has improved significantly, as a result of activities of the National Center for Disease Control, interagency cooperation and municipal public health centers. Now the share of ill-identified underlying causes of death dropped under-15% of total (Figure 2.11).

Figure 2.11 Share of ill-defined causes of death (%



Source: WHO HFA Database, National center for disease control and public health

Natural Population Growth

In Georgia, in 2019, the natural population growth rate in was 0.4 per 1000 population (in 2018 – 1.2). A positive natural growth rate was identified in: Ajara, Tbilisi, and Kvemo Kartli.

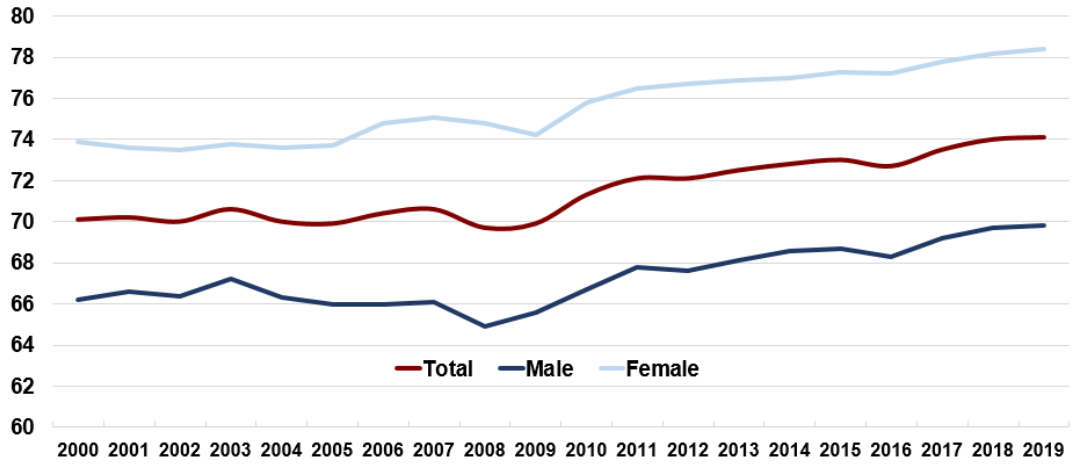
Table 2.10 General indicators of vital statistics, Georgia

	Live births		Deaths		Natural population growth		Marriages		Divorces	
	Number	Rate per 1000 population	Number	Rate per 1000 population	Number	Rate per 1000 population	Number	Rate per 1000 population	Number	Rate per 1000 population
2008	52442	14.6	50490	13.1	1952	0.5	31414	8.2	3189	0.8
2009	56568	13.7	50794	13.3	5774	1.5	31752	8.3	4030	1.1
2010	55230	13.4	51066	13.5	4164	1.1	34675	9.2	4726	1.2
2011	51565	13.4	49818	13.3	1747	0.5	30863	8.2	5850	1.6
2012	49969	16.3	49347	13.2	622	0.2	30412	8.2	7136	1.9
2013	49657	15.9	48564	13.1	1093	0.3	34693	9.3	8089	2.2
2014	60635	15.2	49087	13.2	11548	3.1	31526	8.5	9119	2.5
2015	59249	14.3	49121	13.2	10128	2.7	29157	7.8	9112	2.4
2016	56569	14.8	50771	13.6	5798	1.6	25101	6.7	9539	2.6
2017	53293	14.6	47822	12.8	5471	1.5	23684	6.4	10222	2.7
2018	51138	13.7	46524	12.5	4614	1.2	23202	6.2	10288	2.8
2019	**48296**	**13.0**	**46659**	**12.5**	**1637**	**0.4**	**23285**	**6.3**	**11205**	**3.0**

Life expectancy at birth

In 2019, life expectancy at birth was 74.1 years (in females – 78.4; in males – 69.8) (Figure 2.12).

Figure 2.12 Life expectancy at birth, Georgia



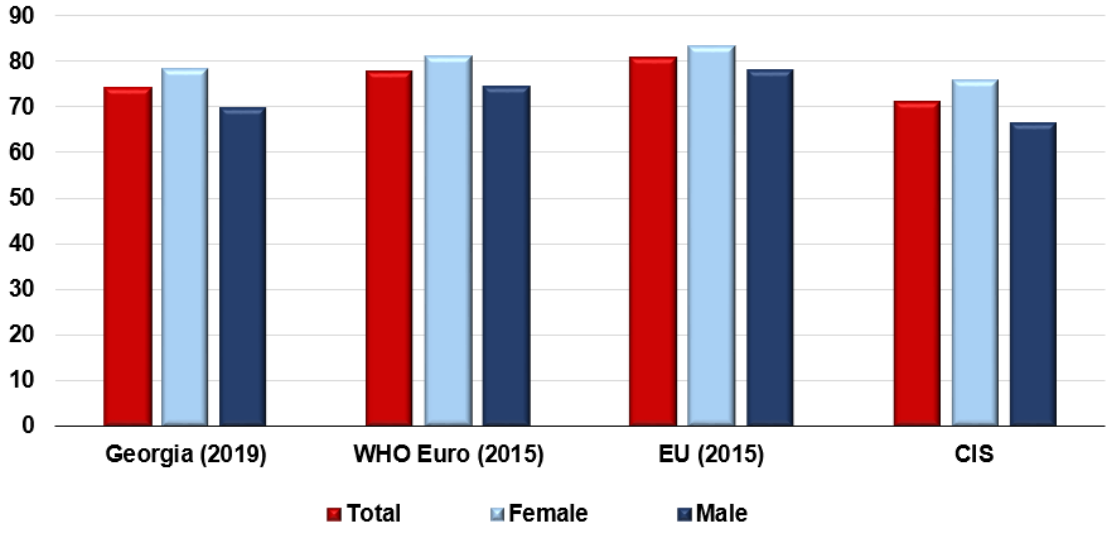
Source: National Statistics Office of Georgia

Tabe 2.11 Life expectancy at birth, Georgia

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	69.7	69.9	71.3	72.1	72.1	72.5	72.8	73	72.7	73.5	74.0	74.1
Male	64.9	65.6	66.7	67.8	67.6	68.1	68.6	68.7	68.3	69.2	69.7	69.8
Female	74.8	74.2	75.8	76.5	76.7	76.9	77.0	77.3	77.2	77.8	78.2	78.4

In Georgia, life expectancy at birth is higher than in the CIS countries, and lower than in the European Region (Figure 2.13).

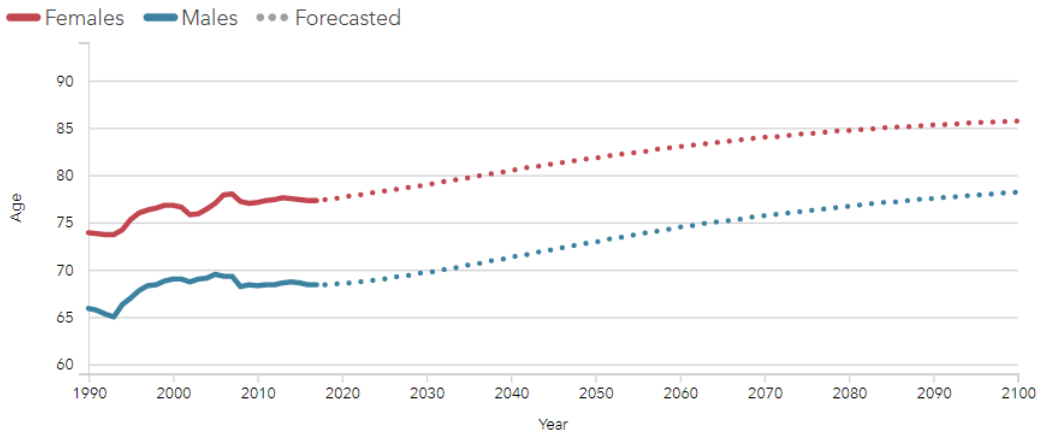
Figure 2.13 Life expectancy at birth (last available year)



Source: National Statistics Office of Georgia; WHO HFA Database

In Georgia, life expectancy at birth, according to the projection of the Institute for Health Metrics and Evaluation (IHME) at the University of Washington, which is based on the global burden of diseases for 2017, maintains the growing trend (Figure 2.14).

Figure 2.14. Life expectancy at birth (last available year), Georgia, 1990-2100



	1990	2017	2100
Females	73.9	77.3	85.7
Males	65.9	68.4	78.2

Figure 2.15 demonstrates the top 10 causes of death and disability provided by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington.

Figure 2.15. Age-standardized DALY rate per 100,000, 2019

	Ischemic heart disease	Stroke	Neonatal disorders	Diabetes	Road injuries	Cirrhosis	Hypertensive heart disease	Lung cancer	Low back pain	Falls
Georgia	1	2	3	4	5	6	7	8	9	10
Comparison group mean (High-middle SDI)	1	4	11	5	10	23	42	8	2	13
Belarus	1	2	12	23	7	11	83	10	4	6
Bosnia and Herzegovina	1	2	6	3	10	22	44	5	4	7
Bulgaria	1	2	10	6	8	7	3	5	4	9
Kazakhstan	1	2	6	8	7	4	29	17	9	16
North Macedonia	2	1	4	3	8	25	9	6	5	10
Republic of Moldova	1	2	4	13	8	3	19	15	5	10
Romania	1	2	9	11	8	4	14	6	3	7
Ukraine	1	2	8	21	5	4	100	14	6	10

Chapter 3.

Health Services

Healthcare Provision

Tabe 3.1 Health resources and resource utilization, Georgia 2019

Number of physicians (including dentists)	31746	Number of In-patient facilities	266
Number of physicians per 100000 population	853.3	Number of out-patient facilities	2280
Number of nurses	19613	Number of hospital beds	17471
Number of nurses per 100000 population	527.2	Number of hospital beds per 100 000 population	469.6
Number of encounters with physicians	13469592	Antenatal care centers	291
Home visits of physicians	181889	Ambulance stations	71
Number of Rural physician-entrepreneur	1269	Blood transfusion facilities	22

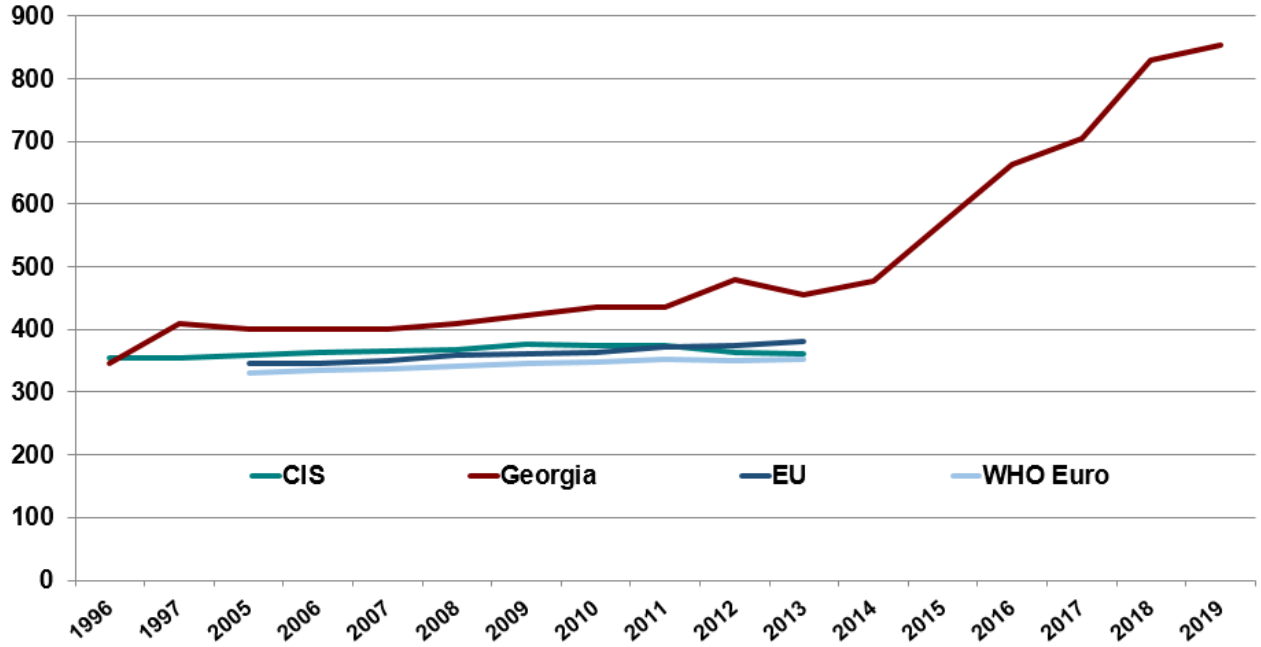
Health workforce and healthcare network

Tabe 3.2 Healthcare facilities network, Georgia, 2019

Type of health facility	Number
Inpatient facilities	**266**
Hospitals and medical centers	265
Including specialized	75
Including independent maternity hospitals	5
Dispensaries with in-patient care unit	1
Outpatient facilities and rural doctors	**2280**
Including Outpatient centers and policlinics	341
Dental Clinics and Offices	574
Ambulatory care clinics	22
Women consultancy centers independent	12
Health Offices (except Dental clinics)	54
Rural physician-entrepreneur	1269
Dispensaries	8
Ambulance stations	71
Blood transfusion	22
Epidemiological centers	60
Other	16

According to WHO strategy, an adequate number of health workforce in the country is very important to provide effective and productive medical services. In Georgia, an increase of the number of physicians per 100000 population has been observed since 2006. This indicator in Georgia is significantly higher than in the European region, the EU and the CIS countries (Figure 3.1).

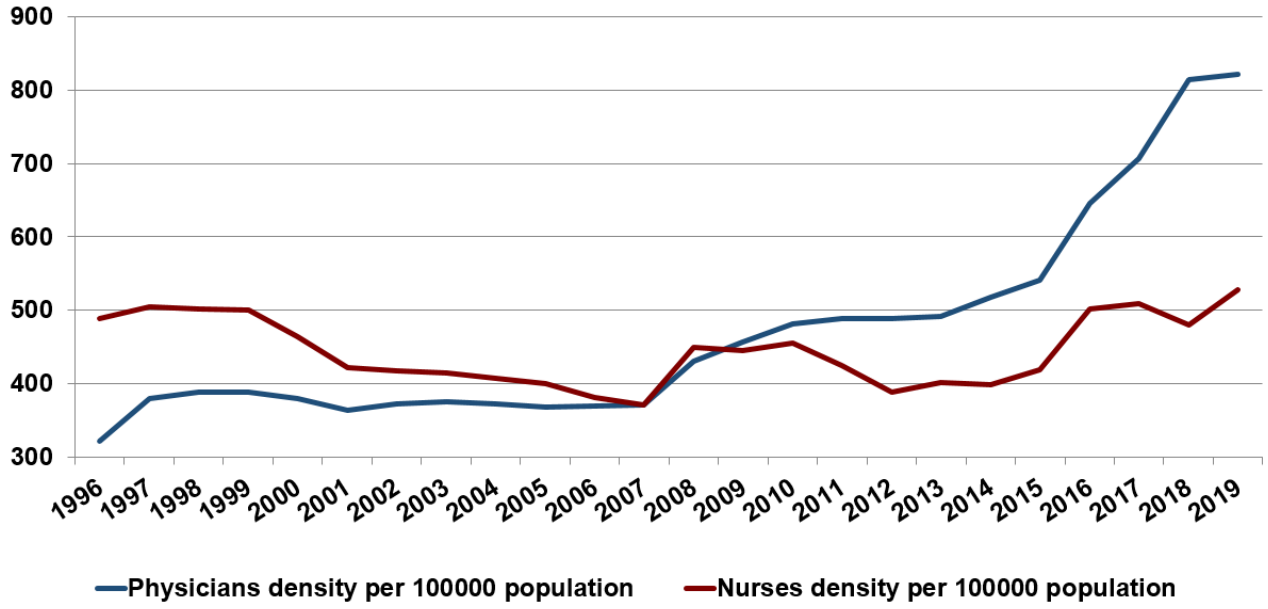
Figure 3.1 Number of physicians per 100 000 population



Source: WHO HFA Database; National center for disease control and public health

In 1998 – 2013, the number of nurses per 100000 population had a trend for reduction, and despite of the recently observed increase, this indicators is significantly lower than the indicators of the European region, the EU and the CIS countries (Figure 3.2).

Figure 3.2 Numbers of professionally active physicians[3] and nurses[4] per 100 000 population, Georgia



Source: National center for disease control and public health

[3] Professionally active physicians include practising physicians and other physicians for whom their medical education is a prerequisite for the execution of the job. Exclusion: students who have not yet graduated, dentists, stomatologists, dental and maxillofacial surgeons, physicians working in administration, research and in other posts that exclude direct contact with patients, unemployed physicians and retired physicians, physicians working abroad

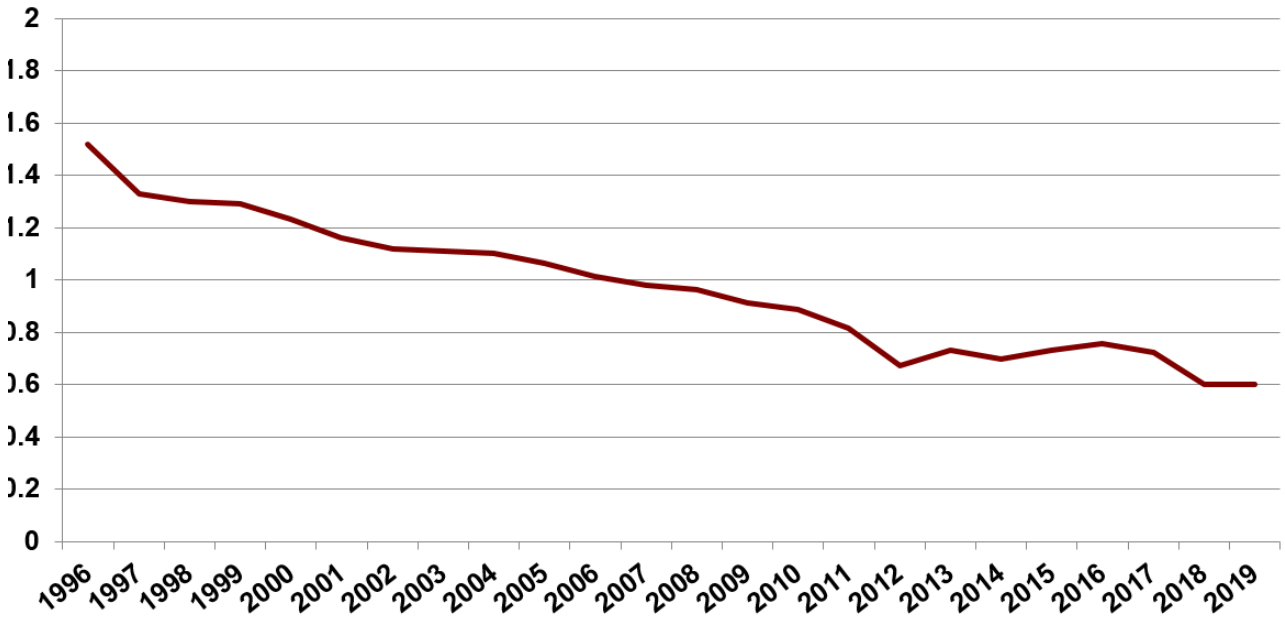
[4] Professionally active nurses include practising and other (non-practising) nurses for whom their education is a prerequisite for the execution of the job. Exclusion: midwives who hold a post / job under which midwifery education is not required, unemployed, midwives and retired midwives, midwives working abroad

Table 3.3 Professionally active physicians[5] per 100 000 population, Georgia

	Physicians total		Including professionally active	
	Total	**Rate per 100 000**	**Total**	**Rate per 100 000**
2008	17961	466.7	16571	430.6
2009	18591	487.4	17392	456.0
2010	19453	513.7	18227	481.3
2011	19514	519.5	18366	488.9
2012	21501	576.6	18235	489.0
2013	20474	550.7	18278	491.6
2014	21201	570.0	19270	518.1
2015	21312	572.1	20143	540.7
2016	24745	663.8	24082	646.1
2017	26303	705.6	25084	672.9
2018	30291	814.2	29223	784.2
2019	**30574**	**821.8**	**29351**	**789.0**

In the European region and EU countries, the ration of physicians to nurses is about 2-2.7 and the tendency of this indicator is positive over years. In Georgia, the number of physicians prevails the number of nurses and the ratio of the number of nurses to the number of doctors during the last 5 years did not exceed 0.8 (Figure 3.3). 28291

Figure 3.3 Ratio of nurses to physicians, Georgia



Source: National center for disease control and public health

[5] *Professionally active physicians include practising physicians and other physicians for whom their medical education is a prerequisite for the execution of the job. Exclusion: students who have not yet graduated, dentists, stomatologists, dental and maxillofacial surgeons, physicians working in administration, research and in other posts that exclude direct contact with patients, unemployed physicians and retired physicians, physicians working abroad*

Tabe 3.4 Professionally active nurses[6] per 100 000 population, Georgia

	Nurses		Midwives	
	Total	Rate per 100 000	Total	Rate per 100 000
2008	17309	449.8	1061	27.6
2009	16958	444.6	955	25.0
2010	17211	454.5	913	24.1
2011	15940	424.3	661	17.6
2012	14493	388.7	634	17.0
2013	14935	401.7	594	16.0
2014	14809	398.2	607	16.3
2015	15574	418.1	593	15.9
2016	18701	501.7	489	13.1
2017	18977	509.1	491	13.2
2018	18440	494.8	491	13.2
2019	**19613**	**527.2**	**542**	**14.6**

Tabe 3.5 Health staff working in inpatient facilities, Georgia

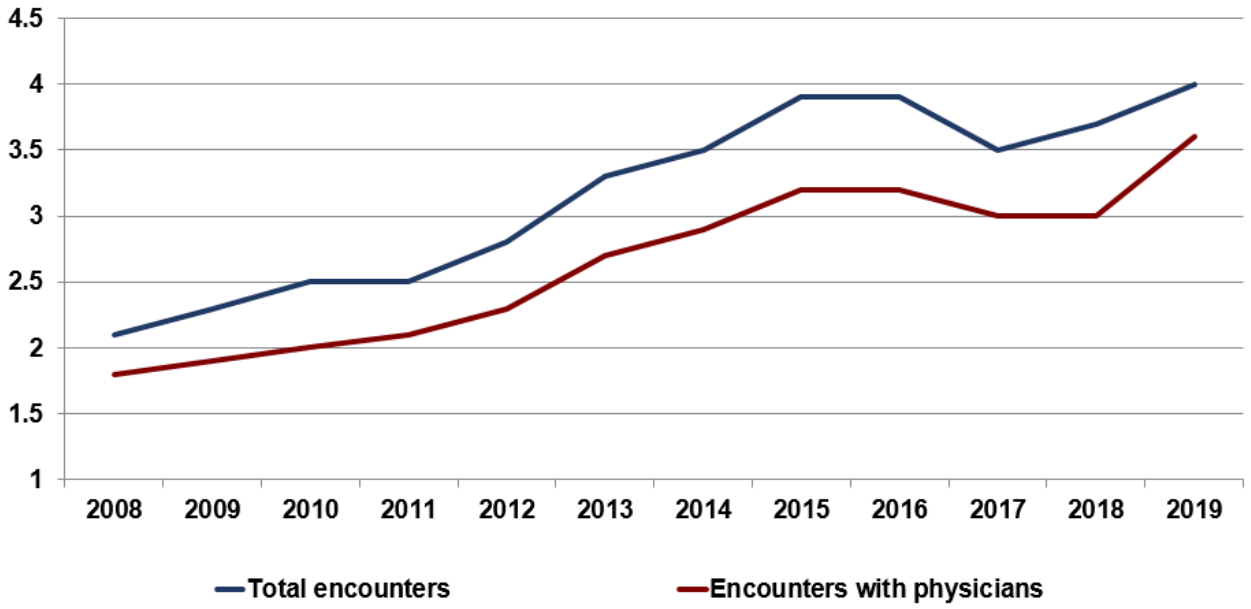
	Personnel working in inpatient facilities		Physicians		Nurses and midwives	
	Total	Rate per 100000 population	Total	% of the total professionally active physicians	Total	% of the total professionally active nurses
2008	30164	783.8	7881	43.9	10864	53.9
2009	30765	806.5	8137	43.8	10741	54.9
2010	30994	818.5	8404	43.2	10772	55.0
2011	28319	753.9	7942	40.7	9583	52.5
2012	24042	644.7	7951	33.1	8116	33.8
2013	25953	698.1	9385	36.2	8632	33.3
2014	26982	725.4	9680	42.0	8915	59.4
2015	30460	817.7	10699	50.2	9957	63.9
2016	31391	842.1	11822	49.1	10897	58.3
2017	35121	942.1	13126	52.1	11905	66.6
2018	39514	1060.3	15543	52.6	12055	63.7
2019	**41317**	**1110.6**	**16615**	**52.3**	**13952**	**71.1**

Health resources utilization

In 2019, in Georgia, 14928350 encounters with primary healthcare were registered. According to WHO last avaible data, encounters of the population with outpatient facilities in European Region is about 6 per capita. In Georgia, last two decades this indicator did not exceed 2.2. After the universal healthcare care program implementation in the country, the numbers of encounters of the population with outpatient and in-patient health facilities have significantly increased. In 2019, the numbers of encounters of the population with outpatient facilities was 4 visits per capita per year (in 2018 - 3.7) (Figure 3.4).

[6] *Professionally active physicians include practising physicians and other physicians for whom their medical education is a prerequisite for the execution of the job. Exclusion: students who have not yet graduated, dentists, stomatologists, dental and maxillofacial surgeons, physicians working in administration, research and in other posts that exclude direct contact with patients, unemployed physicians and retired physicians, physicians working abroad*

Figure 3.4 Total number of encounters per capita per year, Georgia



Source: National center for disease control and public health

Tabe 3.6 Number of encounters with outpatient facilities per capita, Georgia

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
All encounters	**1.8**	**1.9**	**1.9**	**2.1**	**2.4**	**3.2**	**3.6**	**3.5**	**3.1**	**3.3**	**4.0**
Including:											
Encounters to physicians	1.7	1.8	1.8	2.1	2.4	3.1	3.4	3.4	3.0	3.2	3.6
Encounters for children aged under-15	2.7	2.6	2.4	2.6	2.7	3.7	3.8	3.6	3.4	2.8	2.8
Ambulance calls	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4
Ambulance calls for children aged under-15	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3

Tabe 3.7 Number of outpatient surgeries, Georgia

	2013	2014	2015	2016	2017	2018	2019
Total number of surgical operations	**78670**	**77289**	**101602**	**102120**	**105604**	**103469**	**104632**
Including:							
On eye	15941	17576	27517	27185	31369	28920	34480
Including glaucoma	8979	945	1169	1633	1622	1059	1437
cataract	7517	9121	16386	15171	15624	14118	21322
Microsurgery	2957	9894	10490	10423	12752	12789	19899
On throat-ear-nose	2816	4149	4243	14152	12059	16371	17440
On blood vessels	1202	1615	428	642	373	1348	909
On organs of abdominal cavity	1318	772	732	785	679	2314	3236
Of which dissection of no strangulated hernia	740	113	123	168	112	414	396
Obstetrical & gynecological	27167	23862	15655	14905	14628	11981	12084
On mammary glands	231	394	404	434	353	634	338
On skin and subcutaneous tissues	17863	16335	22030	18620	15604	20871	16808

In 2019, annual statistical reports were submitted to the National Center for Disease Control and Public Health by 266 in-patient facilities. There were registered 502756 hospital discharges (the number is 8% less than the number of the previous year).

Table 3.8 Utilization of hospital beds, Georgia

	Number of hospital beds	Number of beds per 100000 population	Bed occupancy rate	Average length of stay	Bed turnover
2008	14069	365.6	792.0	3.0	26.2
2009	13633	357.4	148.2	6.3	23.4
2010	13378	353.3	160.0	6.4	25.2
2011	12599	335.4	173.6	7.0	24.8
2012	11348	304.3	228.9	7.0	32.7
2013	11600	312.0	181.4	5.4	33.6
2014	11675	313.9	188.3	5.2	36.3
2015	12830	344.4	193.3	5.3	36.4
2016	13840	371.3	189.3	5.0	37.8
2017	15084	404.6	180.5	5.2	35.0
2018	15909	426.9	187.2	4.9	37.8
2019	**17471**	**469.6**	**179.5**	**4.9**	**36.5**

Among diagnosis at discharge, the respiratory system diseases constituted 21.7%, cardiovascular disorders – 18.8%, and pregnancy, childbirth and puerperium – 9.5% of total. Total hospital case fatality rate was 2.5%.

Tabe 3.9 Hospital discharges by the ICD10 chapters, all ages, Georgia, 2019

(Top 10 ICD classes)

	Number of hospital discharges	Including deaths	Case fatality rate (%)
Total	**545216**	**13606**	**2.5**
Diseases of the respiratory system	118553	4098	3.5
Diseases of the circulatory system	102515	4159	4.1
Pregnancy, childbirth and the puerperium	52294	5	0.0
Diseases of the digestive system	44179	1015	2.3
Injury, poisoning and certain other consequences of external causes	37609	440	1.2
Certain infectious and parasitic diseases	34210	308	0.9
Diseases of the genitourinary system	26452	330	1.2
Diseases of the nervous system	25474	288	1.1
Neoplasms	23723	1191	5.0
Mental and behavioral disorders	11402	174	1.5

Tabe 3.10 Hospital discharges by the ICD10 chapters, children under-15, Georgia, 2019

(Top 10 ICD classes)

	Number of hospital discharges	Including deaths	Case fatality rate (%)
Total	**111668**	**365**	**0.3**
Diseases of the respiratory system	56511	30	0.1
Certain infectious and parasitic diseases	18679	5	0.0
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	7572	15	0.2
Injury, poisoning and certain other consequences of external causes	6890	8	0.1
Certain conditions originating in the perinatal period	6798	227	3.3
Diseases of the digestive system	4439	7	0.2
Diseases of the genitourinary system	2681	4	0.1
Congenital malformations, deformations and chromosomal abnormalities	2259	40	1.8
Neoplasms	1032	13	1.3
Diseases of the nervous system	862	4	0.5

Table 3.11 Hospital discharges by the ICD10 chapters, infants, Georgia, 2019
(Top 10 ICD classes)

	Number of hospital discharges	Including deaths	Case fatality rate (%)
Total	**25966**	**299**	**1.2**
Diseases of the respiratory system	11156	11	0.1
Certain conditions originating in the perinatal period	6746	226	3.4
Certain infectious and parasitic diseases	4252	2	0.0
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	1151	7	0.6
Congenital malformations, deformations and chromosomal abnormalities	742	38	5.1
Diseases of the genitourinary system	502	1	0.2
Injury, poisoning and certain other consequences of external causes	429		0.0
Diseases of the digestive system	339	5	1.5
Neoplasms	216	2	0.9
Diseases of the nervous system	162	2	1.2
Diseases of blood and blood-forming organs	77	0	0.0

In 2019, reporting of data on surgical operations, like in 2018, was performed by reconciling the electronic inpatient case reporting and universal health care data. Thus, the comparison 2018 - 2019 data (structure of surgical interventions) with previous years will not be valid.

In 2019, in Georgia, 239119 surgical interventions (in 2018 – 221849) were performed, rate per 1000 population – 64.3 (in 2018 - 59.5).

In 2019, 15160 surgeries were performed on heart and major thoracic vessels; 6737– on nervous system; 3101 – on the endocrine system (including 2984 surgeries on thyroid gland). There were 16495 surgeries performed on the female genitals, on prostate gland – 1843 surgeries. In 2019, thirteen kidney transplantations was performed.

Among surgeries conducted on the musculo-skeletal system there were 5165 hip joints (in 2018 – 4187), and 670 knee joints replacements. In 2206 cases a limb or its part amputation was conducted.

Tabe 3.12 In-patient surgeries, Georgia, 2019

Type of surgery	Number of surgeries
Total	**239119**
Including	
On nervous system	6737
On brain	2631
On spinal cord	3483
On peripheral nervous system	609
On the endocrine system	3101
On thyroid gland	2984
Parathyroidectomy	60
Adrenal gland	56
On the eye and adnexa	38375
Due to glaucoma	1714
Due to cataract	6567
On ear, nose and throat	11619
On ear	803
On teeth, jaws, mouth and larynges	19511
On tongue	391
On heart and major thoracic vessels	15160
On valve	51
Shunting of the coronary arteries	2741

Stenting	6672
On chest wall, pleura, midline, diaphragm, trachea, bronchus and lungs	2443
On breast	3376
On the digestive system	43010
On the genitourinary system, male genital organs and the retroperitoneal space	14153
Kidney transplantation	13
On prostate gland	1843
On female genital organs	16495
Obstetrical and gynecological operations	23220
On the musculoskeletal system	25310
On peripheral blood vessels and lymphatic system	7969
On skin	8573
Acquisition of organs and tissues for transplantation	44

The ambulance system is providing free emergency medical care for the population. In 2019, the ambulance services completed 1 526 434 emergency visits; this is, like in 2018, 0.4 encounters per capita per year

Tabe 3.13 Performance of ambulance stations, Georgia

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total number of ambulance stations	**75**	**78**	**75**	**104**	**78**	**79**	**82**	**73**	**78**
Total number of visits	966493	1061690	1231225	1247588	1479212	1617704	1451725	1520836	1526434
Number of population with assistance covered by the State Programs	908000	993089	1148445	1201793	1436980	1459415	1345002	1388243	1459301

Tabe 3.14 Number of population, who received ambulance assistance, Georgia

	Total number of population, who received care	Including					
		Due to accidents		Due to sudden illness		Due to accidents	
		Total	%	Total	%	Total	%
2008	768167	10912	1.4	751945	979	5310	0.7
2009	883129	14579	1.6	863589	978	4961	0.6
2010	933877	13286	1.4	915319	980	5272	0.6
2011	936614	12323	1.3	919953	982	4338	0.5
2012	1035270	29242	2.8	1001494	967	4534	0.4
2013	1199884	15017	1.3	1179681	983	5186	0.4
2014	1221404	26074	2.1	1188006	973	6484	0.5
2015	1452857	24712	1.7	1417200	975	8734	0.6
2016	1530237	24778	1.6	1494058	976	9068	0.6
2017	1413410	20106	1.4	1382520	97.8	8417	0.6
2018	1463076	23521	1.6	1429291	97.7	7306	0.5
2019	**1459301**	**18451**	**1.3**	**1434046**	**98.3**	**3728**	**0.3**

In 2019, all licensed blood banks (22 banks) collected 82048 blood donations, including 27022 (32.9%) free donations.

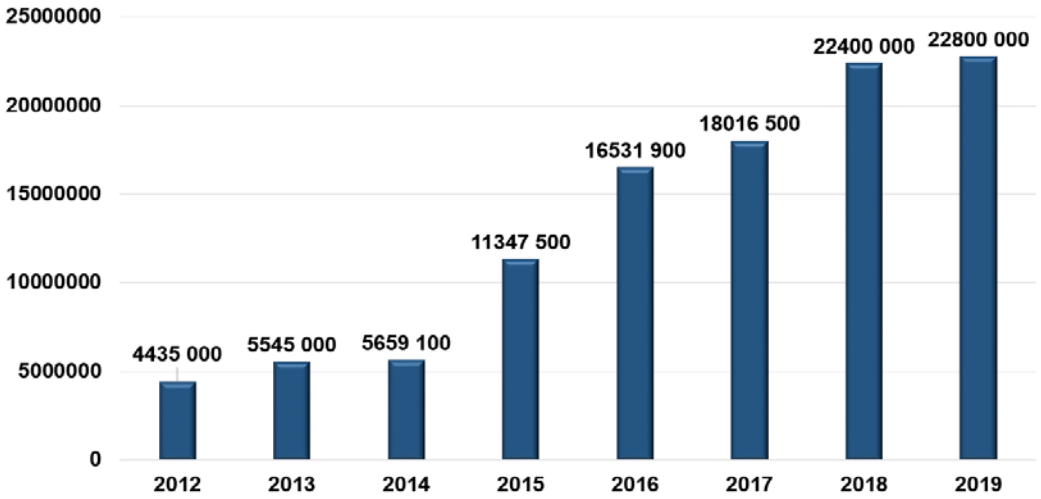
CHAPTER 4.

Immunization

Immunization

From the point of view of the Government of Georgia, immunization is a top public health priority. This is clearly profed by a significant increase of funds allocated to the immunization program (in 2012 - 4 million GEL and in 2019 - 22,800 million GEL) (Figure 4.1).

Figure 4.1 Budget of the immunization program (in GEL)



Source: National center for disease control and public health

Vaccines against the following 13 diseases are currently included in the immunization schedule in the country: tuberculosis, hepatitis B, diphtheria, measles, tetanus, poliomielitis, measles, mumps, rubella, Hib (Hemophilus influenza), Rota virus, pneumococcal infection, papillomavirus infection.

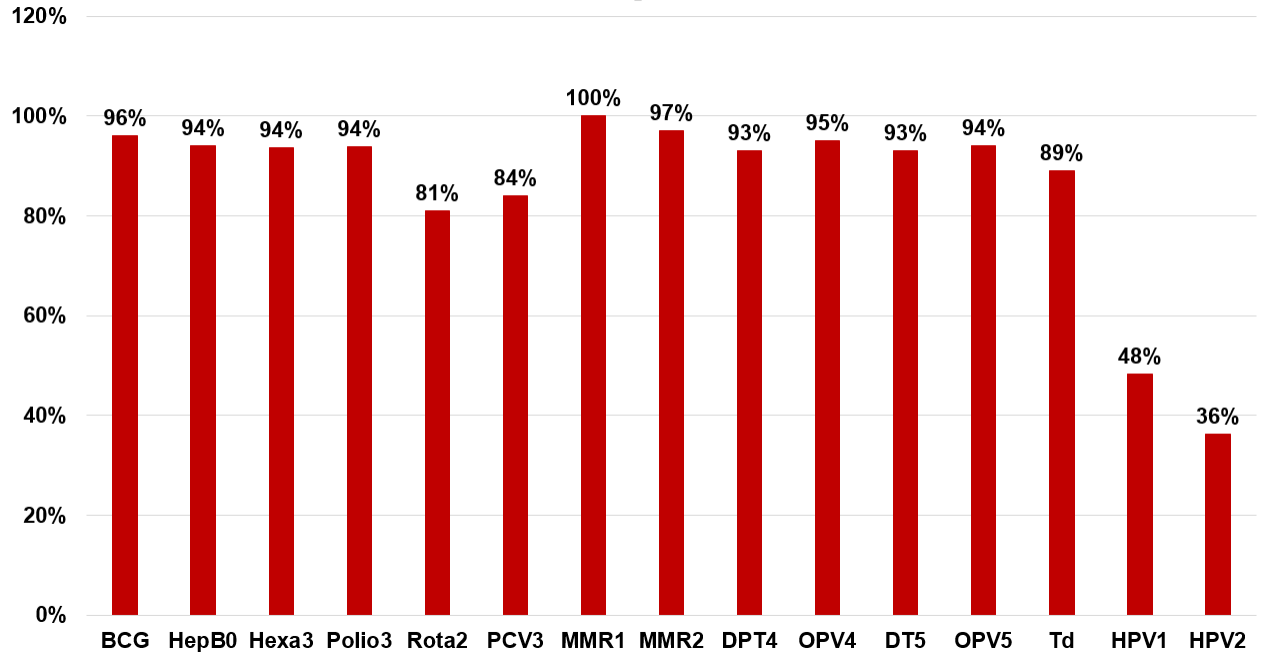
Immunization schedule, Georgia

Vaccine	Number of doses	Immunization age
BCG	1	Newborn 0-5 days
HepB	1	First12 hours after birth
Hib+DPaT+HepB+IPV	3	2, 3, 4 months
Polio (bOPV)	2	18 months, 5 Year
DPT	3	18 months
DT		5 Year
Td		14 Year
MMR	2	12 months, 5 Year
Rota	2	2, 3 months
PCV	3	2, 4, 12 months
APV/HPV	2	Cohort 10-11-12 years of age

Last years the following 5 new vaccines have been added to the immunization calendar: in 2013 - Rota virus vaccine, at the end of 2014 - PCV10 (with GAVI support), in 2015 - IPV (Penta vaccine replaced with Hexavalent vaccine), in 2016 - bivalent polio vaccine (bOPV). In 2017, HPV vaccination was launched in 4 territories of Georgia (Tbilisi, Kutaisi, Adjara, Abkhazia), with the aim of inclussion of 9-year-old girls in the demo program. Since September 2019, human papillomavirus vaccination (APV) has been introduced throughout Georgia for 10, 11 and 12 year old girls.

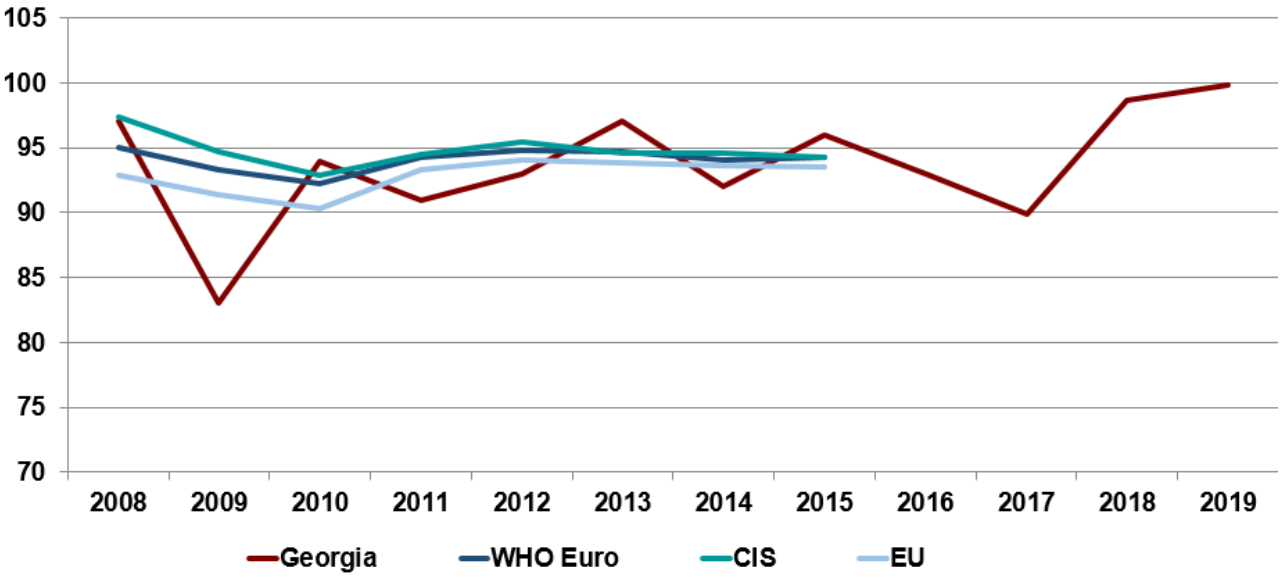
All vaccines, included in the National Vaccination Calendar, are free for the general public. To ensure high quality and safe immunization, the State procures only those vaccines that are pre-qualified by the World Health Organization.

Figure 4.2 Immunization coverage rates (%), Georgia, 2019



The country maintains high coverage rates for most of antigens, however, the annual target coverage rate of 95% for some vaccines has not yet been reached.

Figure 4.3 Percent of children aged 1 year vaccinated against measles



Source: WHO HFA Database, National center for disease control and public health

Since 2002, Georgia has been certified as a wild polio virus free country.

Table 4.1 Data on preventive immunization, Georgia, 2019

Vaccine	Age at immunization	The number of vaccinated according to the calendar	Coverage (%)
BCG–1	0 – 5 days	46,168	96.2%
Viral Hepatitis B-0	0 – 12 hours	46,138	96.1%
DPT+HIB+HEPB/DPT+HIB+HEPB+IPV/DPT1	2 months– till 11 months 29 days	46,070	99.9%
DPT+HIB+HEPB/DPT+HIB+HEPB+IPV/DPT3	4 months – till 11 months 29 days	43,187	93.6%
DPT– 4	18 – 24 months	42,170	93.4%
POLIO– 1	2 months– till 11 months 29 days	46,070	99.9%
POLIO– 3	4 months– till 11 months 29 days	43,271	93.8%
OPV– 4	18 – 24 months	42,959	95.0%
OPV – 5	5 years – 5 years 11 months 29 days	53,273	93.7%
MMR – 1	12 – 24 months	46,955	99.8%
MMR – 2	5 years – 5 years 11 months 29 days	55,306	97.3%
ROTAVIRUS -1	2 months	39,638	86.0%
ROTAVIRUS -2	3 months	37,271	80.8%
DT	5 years – 5 years 11 months 29 days	53,149	93.5%
PNEUMOCOCCUS - 1	2 months– till 11 months 29 days	45,039	97.7%
PNEUMOCOCCUS - 2	2 months– till 11 months 29 days	39,259	85.1%
PNEUMOCOCCUS - 3	12 – 24 months	39,594	84.1%
TD	14 years	35,102	88.8%
Papillomavirus-2	Girls 10-11-12 years of age	7,992	36.3%

In 2019, an electronic immunization module was introduced in the country to improve the vaccine registration process and issues of immunization supplies and vaccine management. Various analytical tools have been included in the system.

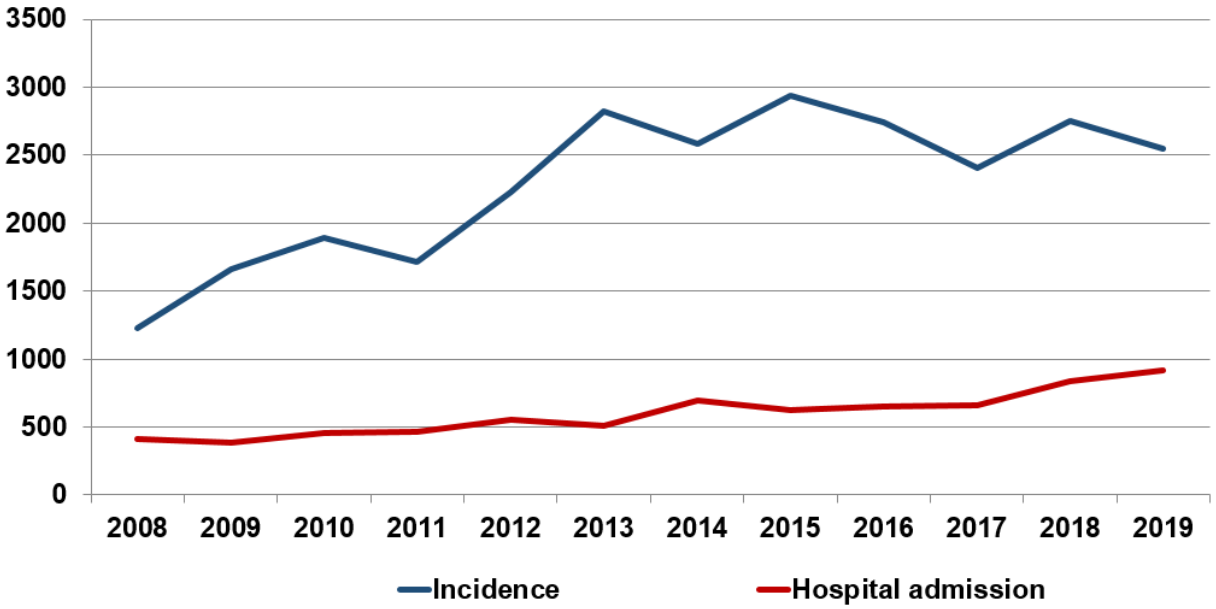
CHAPTER 5.

Population Health Status

Communicable diseases

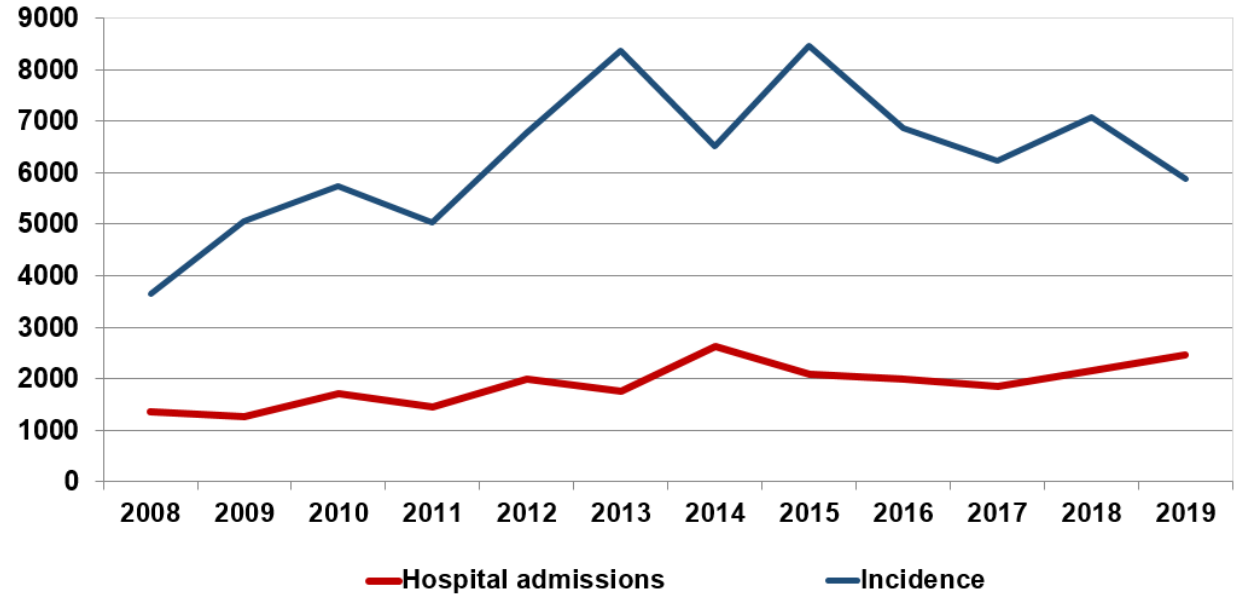
In 2019, incidence rate of infectious and parasitic diseases decreased in the total population and in children, although, hospital admission rate slightly increased in the above mentioned populations (Figures 5.1, 5.2).

Figure 5.1 Infectious and parasitic diseases, incidence and hospital admission rates per 100000 population, Georgia



Source: National cente for disease control and public health

Figure 5.2 Infectious and parasitic diseases, incidence and hospital admission rates in children under-15 (rates per 100000 children), Georgia



Source: National center for disease control and public health

Tabe 5.1 Certain infectious and parasitic diseases, incidence per 100000 population, Georgia

	All ages		Children aged under-15	
	Total number	Incidence rate	Total number	Incidence rate
2008	47124	1224.5	25120	3656.2
2009	63510	1665.0	34583	5054.9
2010	71642	1891.9	39265	5730.1
2011	64378	1713.8	34362	5025.7
2012	83014	2226.2	46129	6766.2
2013	104868	2820.8	57197	8369.6
2014	96151	2585.1	45123	6501.3
2015	109557	2940.9	60213	8468.6
2016	102159	2740.7	49916	6875.0
2017	89756	2407.6	45954	6219.1
2018	102424	2748.6	53089	7081.5
2019	**94895**	**2550.8**	**44521**	**5883.1**

During the reporting period, intestinal infections (codes A04, A08, A09 using ICD-10) had the largest share in the structure of hospital admissions of children due to communicable diseases. In particular, the share of such infections in hospital admissions in children aged under-15 was 54.6%, in infants it was 45.5%. In infants hospital admissions share due to these diseases was 48.3%.

Tabe 5.2 Certain infectious and parasitic deseases, hospital discharges, all ages, Georgia

	2018			2019		
	Number of hospital discharges	Including deaths	Case fatality rate (%)	Number of hospital discharges	Including deaths	Case fatality rate (%)
Certain infectious and parasitic diseases	**31152**	**344**	**1.1**	**34211**	**306**	**0.9**
Including:						
Intestinal infections	14075	19	0.1	13502	10	0.1
Respiratory tuberculosis	1563	23	1.5	1251	23	1.8
Meningococcal infection	15	2	13.3	13	3	23.1
Septicaemia	1093	181	16.6	971	74	7.6
Viral hepatitis	1870	57	3.0	1906	59	3.1
Human immunodeficiency virus (HIV) disease	900	29	3.2	216	2	0.9

Tabe 5.3 Certain infectious and parasitic deseases, hospital discharges, children aged under-15, Georgia

	2018				2019			
	Hospital discharges		Including in infants		Hospital discharges		Including in infants	
	Number	Case fatality	Number	Case fatality	Number	Case fatality	Number	Case fatality
Certain infectious and parasitic diseases	**16814**	**0.1**	**3635**	**0.2**	**18681**	**0.03**	**4254**	**0.05**
Including								
Intestinal infections	9192	0.03	2024	0.0	9069	0.01	2056	0.05
Respiratory tuberculosis	61	0.0	2	0.0	44	0.0	0	0.0
Meningococcal infection	12	8.3	5	0.0	10	10.0	1	0.0

Tabes 5.4 Notifiable diseases, incidence per 100000 population, Georgia 2019

	All ages		Children	
	Number of cases	Incidence per 100000 population	Number of cases	Incidence per 100000 population
Diphtheria	1	0.0	0	0.0
Whooping cough	290	7.8	250	33.0
Tetanus	2	0.1	0	0.0
Acute flaccid paralysis / poliomyelitis	4	0.1	4	0.5
Measles	3918	105.3	1457	192.5
Rubella	9	0.2	6	0.8
Mumps	26	0.7	22	2.9
Other viral hepatitis	43	1.2	1	0.1
Acute viral hepatitis A	3	0.1	0	0.0
Acute viral hepatitis B	31	0.8	0	0.0
Chronic viral hepatitis B	1401	37.7	4	0.5
Viral hepatitis C	8671	233.1	749	99.0
Other salmonella infections	245	6.6	99	13.1
Shigellosis	332	8.9	267	35.3
Enterohaemorrhagic escherichiosis	33	0.9	13	1.7
Other bacterial foodborne intoxications	38717	1040.7	15561	2056.3
Botulism	11	0.3	0	0.0
Diarrhoea and gastroenteritis of presumed infectious origin	15345	412.5	10019	1323.9
Tularaemia	2	0.1	1	0.1
Anthrax	10	0.3	0	0.0
Brucellosis	185	5.0	19	2.5
Lyme disease (Borreliosis)	315	8.5	52	6.9
Pox viral infections	32	0.9	3	0.4
Rickettsioses	14	0.4	2	0.3
Rabies	1	0.0	0	0.0
Haemorrhagic fevers of presumed viral origin	10	0.3	0	0.0
Hantavirus infection	16	0.4	2	0.3
Crimea-Congo fewer	8	0.2	0	0.0
Leptospirosis	403	10.8	22	2.9
Scarlet fever	971	26.1	914	120.8
Chicken pox	6135	164.9	5141	679.3
Viral meningitis	9	0.2	4	0.5
Bacterial meningitis	73	2.0	7	0.9
Meningococcemia	12	0.3	9	1.2
Meningitis caused by N. meningitidis	0	0.0	0	0.0
S. pneumonae infection	0	0.0	0	0.0
Meningitis caused by S. pneumonae	3	0.1	1	0.1
Meningitis caused by M. tuberculosis	37	1.0	1	0.1
Post-vaccination unusual reactions and complications	12	0.3	5	0.7
Nosocomial infections of the urinary tract	65	1.7	0	0.0
Nosocomial pneumonia	389	10.5	30	4.0
Sepsis	85	2.3	22	2.9
Surgical wound infection	47	1.3	1	0.1
Leishmaniosis	35	0.9	34	4.5
Echinococcosis	310	8.3	11	1.5
Malaria	8	0.2	0	0.0
Trichinellosis	1	0.0	0	0.0
Amebiasis	107	2.9	16	2.1
Fascioliasis	89	2.4	7	0.9
Mushroom poisoning	275	7.4	50	6.6
Poisonous reptile bite	100	2.7	15	2.0

COVID-19

Coronavirus 2, called COVID-19, which originated from Wuhan, Hubei Province of China, in December 2019, is the third zoonotic coronavirus outbreak of the 21st century, when the infection was transmitted from person to person and caused a health problem.

In Georgia, testing, using PCR, to detect COVID-19 started on January 30, 2020. From January 30 to September 30, the number of tests, conducted in the country, was 648736, of which 642541 were primary tests. By September 30, 2020, the country has conducted 176,642 rapid simple antibody-based, and 167,532 rapid simple antigen-based tests.

By September 30, PCR testing positivity rate was 1.02% from the primary confirmed case.

In Georgia, the first confirmed case was registered on February 26. During the period February 26 – September 10, COVID-19 confirmed cases were characterized with growing dynamics and daily incidence rate fluctuated in the 0.1 – 0.7 interval. From September 10, on the background of a sharp increase of confirmed cases, the incidence rate increased 9-fold and reached 6.6.

By September 30, 6640 cases of COVID-19 were confirmed, the cumulative incidence rate was 178.6 (95% CI 174.4-182.9) per 100,000 population.

Among other epidemiological indicators of COVID-19 in Georgia, attract attention the following: an average doubling time from the first case to October 1 is 19 days, and an effective reproduction index Rt is 1.45 (95% CI 1.39-1.51). By October 30, the number of cured patient is 3419 (52%). By September 60, there were 39 deaths registered (case fatality rate – 0.59%),

Pulmonary and extrapulmonary tuberculosis

In Georgia, during last years, according to the World Health Organization estimates and data of local institutions, there is a trend of decrease of tuberculosis morbidity, although, indicators are high, compared to the European region and the EU countries.

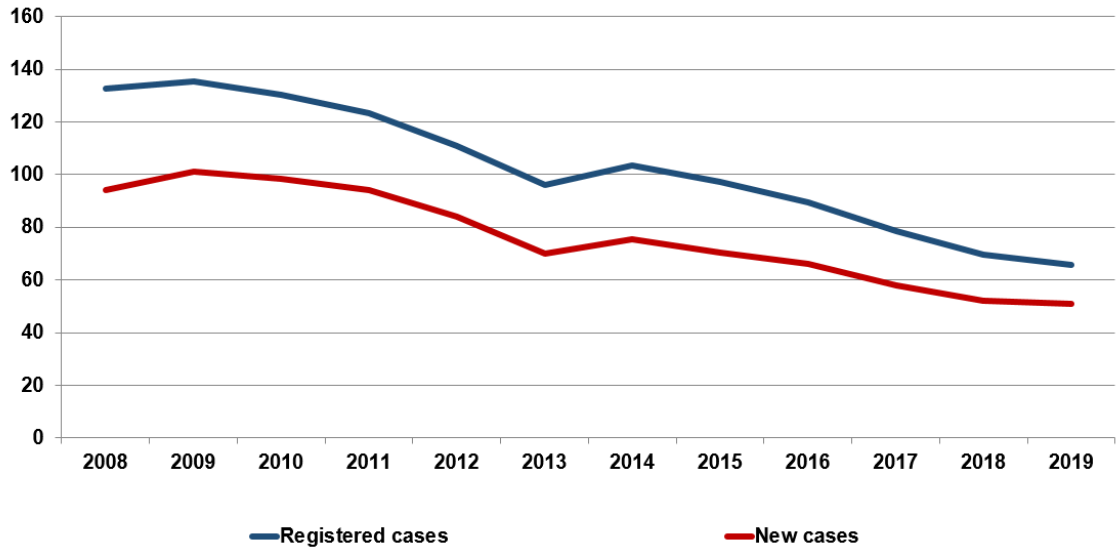
There is significant progress in the fighting against tuberculosis in Georgia. During last few years, the prevalence of tuberculosis has decreased by about 9%. According to a sustainable epidemiological surveillance system, this trend is a true decline of the disease incidence. It should be noted that in 2019 the Ajara region joined the "Zero Tuberculosis Initiative". An updated TB management guideline has been developed and implemented.

In 2019, 2448 cases of all forms of tuberculosis were registered (the registered prevalence of all forms of tuberculosis was 65.8 per 100000 population), including 1896 new cases (incidence per 100,000 population - 53.1). 78.6% of new cases were pulmonary tuberculosis. In 2019, 319 patients were diagnosed with resistant tuberculosis (MDR).

Tabe 5.5 Tuberculosis morbidity rates per 100000 population, Georgia

	All forms of tuberculosis				Pulmonary tuberculosis			
	New cases	Rate per 100000 population	New cases and relapses	Rate per 100000 population	New cases	Rate per 100000 population	New cases and relapses	Rate per 100000 population
2008	4148	94.3	4318	98.2	2931	66.6	3195	72.6
2009	4457	101.0	4757	107.8	3174	72.0	3449	78.2
2010	4383	98.4	4679	105.1	3228	72.5	3519	79.0
2011	4223	94.2	4554	101.6	3167	70.6	3490	77.8
2012	3778	84.1	3942	87.8	2834	63.1	2995	66.7
2013	3133	69.8	3434	76.5	2412	53.8	2693	60.0
2014	2807	75.3	3200	85.9	2149	57.7	2496	67.0
2015	2622	70.5	3152	84.8	2006	54.0	2483	66.8
2016	2463	66.2	2983	80.2	1901	51.1	2371	63.7
2017	2164	58.0	2597	69.6	1687	45.3	2068	55.5
2018	1944	52.2	2320	62.3	1527	40.9	1863	50.0
2019	**1896**	**50.9**	**1977**	**53.1**	**1499**	**40.3**	**1583**	**42.5**

Figure 5.3 Tuberculosis morbidity rates per 100000 population, Georgia



Source: National center for disease control and public health; National Center for Tuberculosis and Lung Diseases

Tabe 5.6 Tuberculosis morbidity rates per 100000 population, Georgia

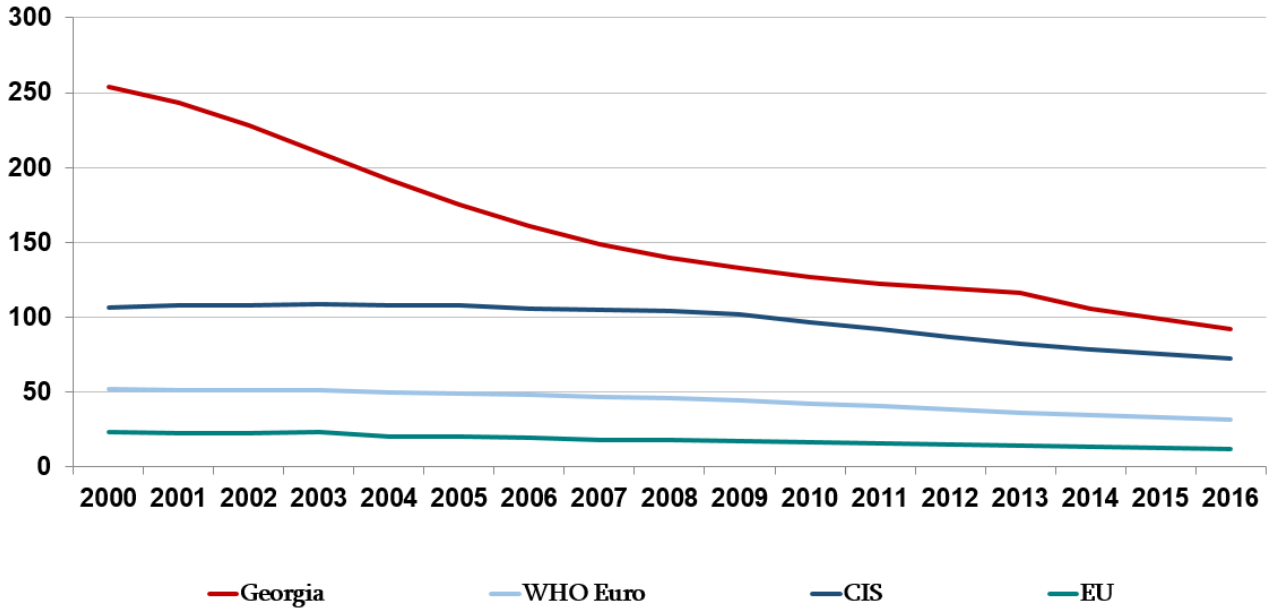
	All forms of tuberculosis		Including pulmonary tuberculosis	
	Number of registered cases	Number of registered cases	Number of registered cases	Number of registered cases
2008	5836	132,7	4471	116.2
2009	5978	135,5	4587	120.3
2010	5796	130,2	4524	119.5
2011	5533	123,4	4369	116.3
2012	4974	110,8	3905	104.7
2013	4319	96,2	3502	94.2
2014	3850	103.3	3094	83.2
2015	3611	97,1	2916	78.3
2016	3330	89.5	2709	72.7
2017	2927	78.5	2373	63.7
2018	2590	69.5	2118	56.8
2019	**2448**	**68.5**	**2014**	**54.1**

Table 5.7 Registered cases of extra pulmonary tuberculosis by localization, Georgia

	2016		2017		2018		2019	
	Total number	Rate per 100000 population	Total number	Rate per 100000 population	Total number	Rate per 100000 population	Total number	Rate per 100000 population
Cases of extra pulmonary tuberculosis	**620**	**16.7**	**551**	**14.7**	**472**	**12.7**	**434**	**11.7**
Tuberculosis meningitis	61	1.6	49	1.3	45	1.2	62	1.7
Bone and joint tuberculosis	105	2.8	99	2.7	71	1.9	53	1.4
Urogenital tuberculosis	75	2.0	49	1.3	63	1.7	38	1.0
Tuberculosis pleurisy	182	4.9	169	4.5	163	4.4	133	3.6
Tuberculosis of lymph nodes	197	5.3	185	4.9	130	1.4	69	1.9

In 2019, 1.8% of new tuberculosis cases and relapses are reported by the penitentiary system (in 2018 – 2.0%). The share of pulmonary tuberculosis was 79.2% of the new cases of all forms tuberculosis. In Georgia, tuberculosis incidence, despite of the decline, significantly exceeds tuberculosis rates in the European region and the EU countries (Figure 5.4).

Figure 5.4 Tuberculosis incidence, WHO estimates



Source: WHO HFA Database

In Georgia, according to the *Institute for Health Metrics and Evaluation* (*IHME*) at the Uminercity of Washington projections, decline of tuberculosis incidence is expected (Figure 5.5).

Figure 5.5 Tuberculosis incidence rate per 100000 population, Georgia

Source: http://www.thelancet.com/lancet/visualisations/gbd-SDGs

In 2019, (cohort of 2018) the "successful treatment" of new cases of BK+ tuberculoses was 83%..

Table 5.8 Results of treatment of new cases of smear positive pulmonary tuberculosis, registered 12 months ago (2018 cohort), Georgia

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of registered cases	**2143**	**2028**	**1647**	**1332**	**1003**	**782**	**725**	**604**	**581**
% of total:									
Recovered	67.0	68.3	65.6	64.1	73.0	77.1	77.3	77	77.0
Completed treatment	9.5	7.7	8.8	7.1	7.9	6.0	6.6	5	6.0
Unsuccessful treatment	1.9	3.1	4.3	3.8	4.6	4.6	3.7	6	5.0
Died	2.9	2.3	2.0	3.2	4.2	4.3	3.4	4	5.0
Interrupted treatment	6.7	5.1	5.5	6.6	7.7	6.5	6.7	5	5.0
Not evaluated	1.4	1.2	2.3	2.9	2.7	1.4	2.0	3	2.0

According to the WHO fresh statistics, Georgia is no longer belongs to the countries with a high burden of multidrug-resistant tuberculosis. Recent years have seen a breakthrough in the management of multidrug-resistant TB, which is reflected in the use of new medications. In 2019, 278 patients were diagnosed with multidrug-resistant tuberculosis (MDR).

Extensively resistant tuberculosis (XDR-TB) is observed in 12% of multidrug-resistant tuberculosis (MDR-TB): in 2017 data, it was 15%, in 2018 - 18%, and in 2019 - 12%.

The share of HIV co-infection of new RR/MDR cases is 4%. The shares of new and relapsed RR/MDR cases constituted 12.1% and 32.1% of the total number of new and cured tuberculosis cases correspondingly.

Georgia, with assistance of the Global Fund, has managed to introduce effective anti-TB treatment for both sensitive and MDR patients. The country has ensured the universal access to both first and second line medicines. Under the State program new anti-tuberculosis drugs are available, a drug safety monitoring system has been introduced. Last years the management of multidrug-resistant TB included the use of new drugs. New anti-tuberculosis drugs are available under the state program, a drug safety monitoring system has been introduced. According to new WHO statistics, Georgia is no longer one of the

countries in the world with a high burden of multidrug-resistant tuberculosis. Recent years have seen a breakthrough in the management of multidrug-resistant tuberculosis, which is reflected in the use of new medications. A video surveillance (VOT) pilot program has been launched in Tbilisi to improve patient geographical access. Today, 280 patients receive medication through VOT.

Since 2019, the National Center for Disease Control and Public Health has started remote meetings (ECHO-TB) with TB managers of Adjara Public Health Centers, with the main goal to consult on TB management issues and provide them with lecture topics on various TB surveillance issues.

The methodical recommendation for the Survey of TB Index Patients was updated, approved by order of the Minister of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs. This recommendation is intended to improve the survey of contacts.

The country introduced modern diagnostic methods recommended by WHO: liquid culture, GeneXpert MTB / RIF systems for rapid diagnosis of TB and MDR-TB.

Georgia works in relationships with international partners and local organizations to ensure the effectiveness and sustainability of the TB program. The country is a partner of such multicenter studies as: FIND, EXPAND TB, STREAM, STAND, END-TB, Nix-TB.

In 2019, according to the National Statistics Office of Georgia, tuberculosis was the underlying cause of death in 76 cases, with a TB mortality rate of 2.0 per 100,000 population (in 2018 - 92 deaths, and mortality rate - 2.5).

HIV/AIDS

Georgia is considered as a country with low prevalence of HIV/AIDS. However, last years incidence of HIV/AIDS is charactirized by the growing trend. In 2019, in Georgia, 668 new cases of HIV were registered (incidence per 100000 population – 18.0).

Last years, in the frame of different state programs (Maternal and Child health, Safe blood, HIV / AIDS programs) voluntary testing for HIV / AIDS, of pregnant women, blood donors, behavioral high-risk and other groups, including prisoners of the penitentiary system (accused / convicted), took place. In 2019, in the frame of HIV / AIDS State Program, 441119 tests were conducted. 35233 screening tests were conducted, according to the report of the JSC Center for Infectious Diseases, AIDS and Clinical Immunology.

Under the Global Fund program, representatives of high-risk behavioral groups (NMS, CSM women, MSM) were provided with HIV preventive packages, including voluntary HIV counseling and testing.

The United Nation’s program on HIV/AIDS 90-90-90 is a set of goals (by 2020, 90% of people, who are HIV infected, will be diagnosed, 90% of people, who are diagnosed, will be on antiretroviral treatment, and 90% of those, who receive antiretroviral therapy, will be virally suppressed (viral suppression is when a person’s viral load, or the amount of virus in an HIV-positive person’s blood, is reduced to an undetectable level). The country holds important positions on the second and third targets, but is lagging behind the first 90. In

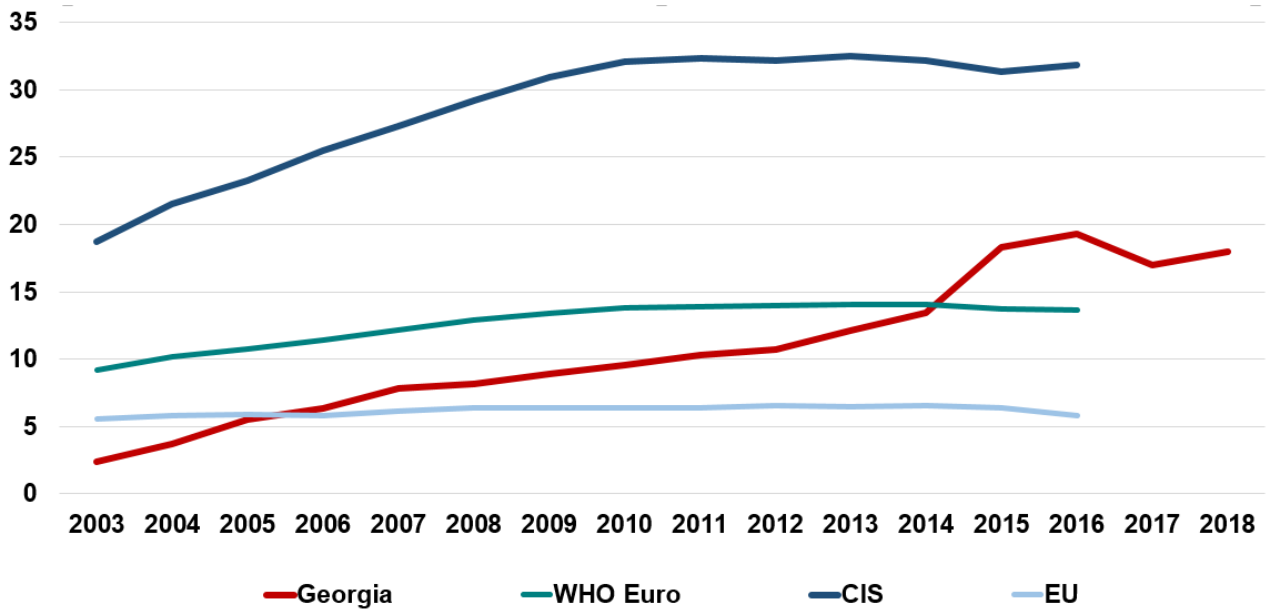
2019, 30.4% (in 2018 - 40.6%) of new HIV cases are diagnosed at the stage of developed AIDS.

Georgia, compared to other countries of the region, has high level of achievement of the UN's second and third 90 goals - rates of HIV infection inclusion and achievement of viral suppression.

The Government and the Global Fund provide universal access to antiretroviral drugs for AIDS patients (including the population of Abkhazia).

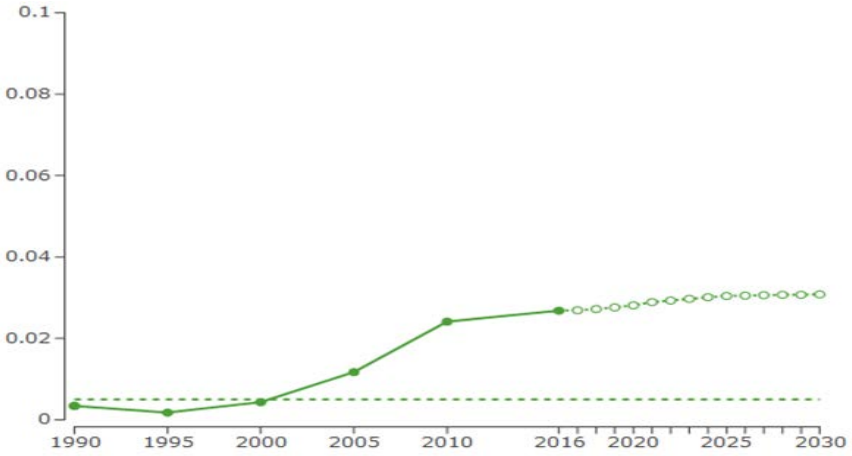
Georgia's antiretroviral treatment program is recognized as one of the best in Eastern Europe and Central Asia.The program is characterized by a high volume, sustainability, high quality of services, provided throughout the country. Universal access of HIV / AIDS patients to antiretroviral drugs, is funded by the State and the Global Fund. Georgia is the first country in the region, to implement a "treatment for all" strategy, which is aimed on the treatment of HIV / AIDS patients, independently of the number of CD4 cells, significantly improves the treatment outcomes and promotes HIV / AIDS proliferation in the country (Figure 5.6, 5.7).

Figure 5.6 HIV incidence per 100000 population



Source: WHO HFA Database&National center for disease control and public health

Figure 5.7 HIV incidence per 100000 population, Georgia



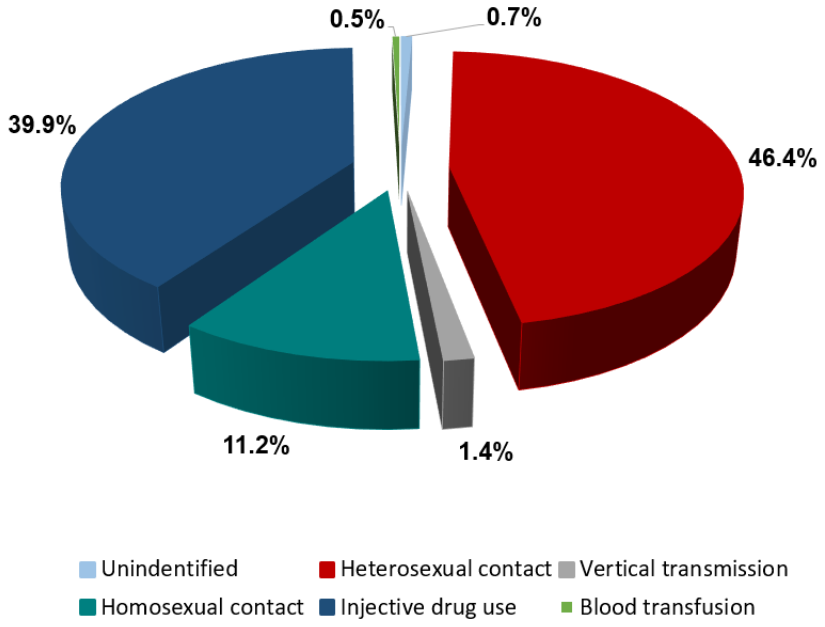
Source: http://www.thelancet.com/lancet/visualisations/gbd-SDGs

Table 5.9 HIV, new cases by the mode of transmission (in %), Georgia

Mode of transmission	2017	2018	2019
Injecting drug use	23.5	16.2	17.1
Heterosexual contacts	54.0	62.8	68.0
Homosexual contacts	20.6	19.5	14.1
Vertical transmission	0.5	0.00	0.4
Blood or blood products transfusion	0.8	0.9	0.3
Unidentified	0.6	0.6	0.1

Source: Center for Infectious Diseases, AIDS and Clinical Immunology

Figure 5.8 New cases of HIV infection, by modes of transmission (%), Georgia, 2019



Source: Center for Infectious Diseases, AIDS and Clinical Immunology

Tabe 5.10 New cases of HIV infection, incidence per 100000 population, Georgia

	1990	2000	2010	2015	2016	2017	2018	2019
All ages	**0**	**2.0**	**11.6**	**19.2**	**19.3**	**16.9**	**18.0**	**18.0**
Including population aged 15-24	0	1.6	2.8	9.1	14.5	14.1	25.4	16.5

Tabe 5.11 New cases of HIV infection, incidence by sex, Georgia

	2017		2018		2019	
	Total	Incidence per 100000 population	Total	Incidence per 100000 population	Total	Incidence per 100000 population
Male	499	27.9	513	28.6	508	28.4
Female	132	6.8	159	8.2	160	8.3
Both sexes	631	16.9	672	18.0	**668**	**18.0**

Table 5.12 New cases of HIV infection by the mode of transmission, Georgia

	2017		2018		2019	
	Number	%	Number	%	Number	%
Injecting drug use	148	23.5	109	16.2	114	17.1
Heterosexual contacts	341	54.0	422	62.8	454	68.0
Homosexual contacts	130	20.6	131	19.5	94	14.1
Blood or blood products transfusion	5	0.8	0	0.00	2	0.3
Vertical transmission	3	0.5	6	0.9	3	0.4
Unidentified	4	0.6	4	0.6	1	0.1
Total	**631**	**100.0**	**672**	**100.0**	**668**	**100.0**

Table 5.13 Case fatality of HIV-infected patients by the cause of death, Georgia

	2017		2018		2019	
	Number of deaths	%	Number of deaths	%	Number of deaths	%
HIV related	77	55.4	74	54.8	57	48.7
Non-HIV deaths	25	18.0	33	24.4	29	24.8
Unknown	37	26.6	28	20.7	31	26.5
Total	**139**	**100.0**	**135**	**100.0**	**117**	**100.0**

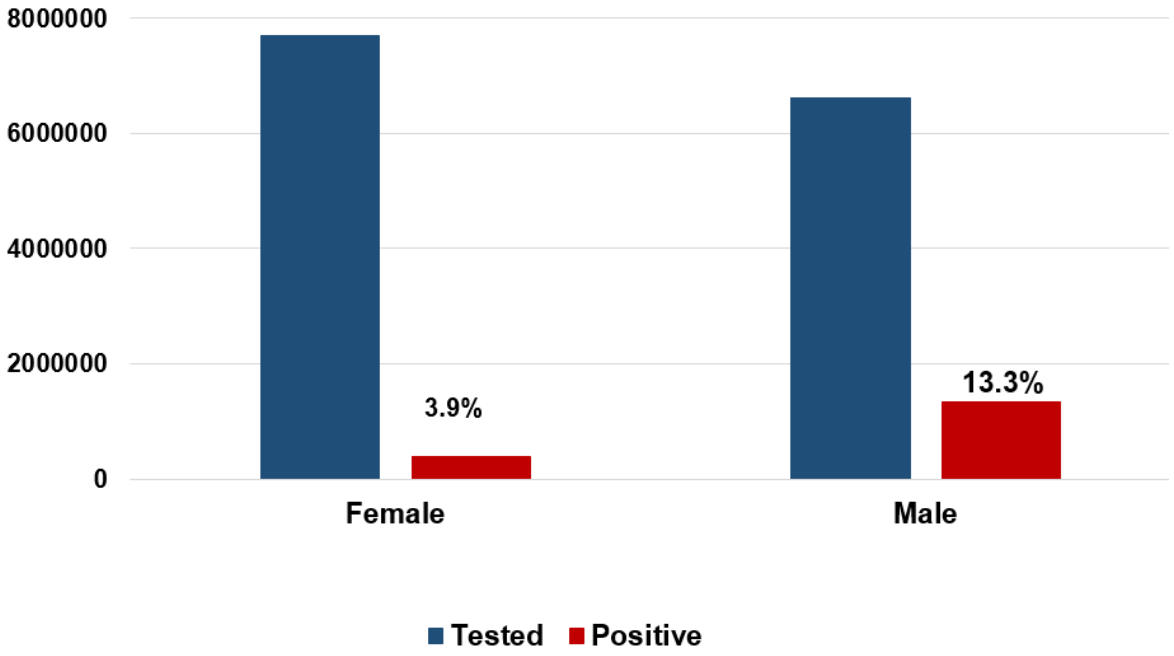
In 2019, in Georgia a pilot program of preventive antiviral treatment (PrEP) of the MSM population, which started in 2017, successfully continued. The program allows to avoid getting of HIV infection for people with high risk by implementing an antiviral preventive treatment. It is planned to enlarge a geographical access to the program and to involve other high-risk populations.

Viral hepatitis C (HCV)

Based on available data, Georgia is among the countries with high hepatitis C (HCV) prevalence. However, the reasons of the high burden of the disease have not been studied sufficiently. According to the latest population-based seroprevalence survey, estimated national seroprevalence of hepatitis C is 7.7% and the prevalence of active disease is 5.4%. The study was conducted by the National Center for Disease Control and Public Health (NCDC) and the US Centers for Disease Control and Prevention (CDC) in May-August 2015.

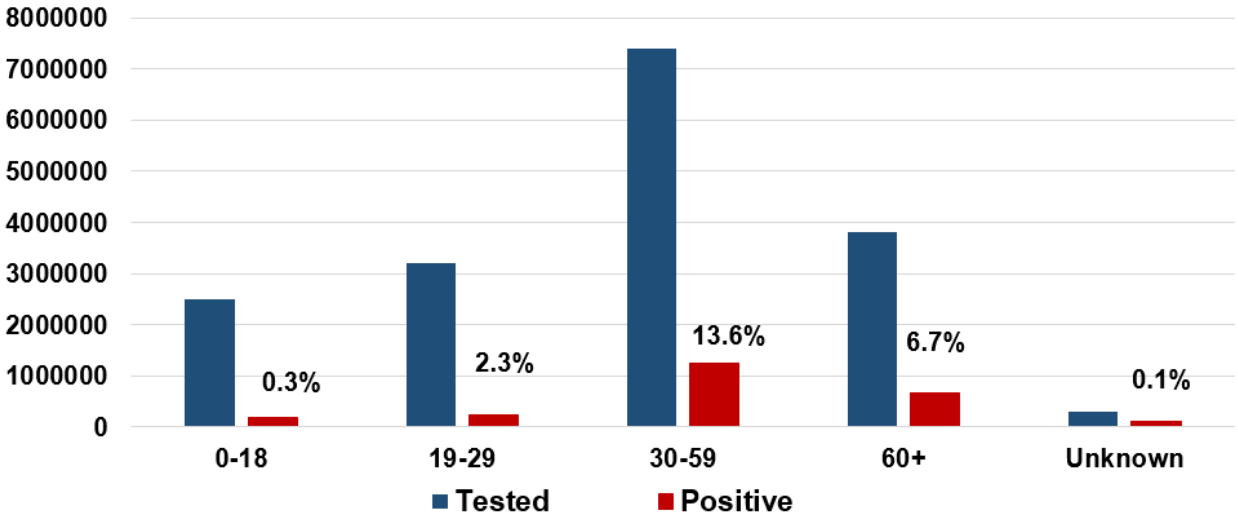
By June 30, 2019, more than 2.8 million conducted screening tests were registred in the module, this covers more than 1.7 million screened individuals, with a positive rate of 7.82% (Figure 5.9, 5.10).

Figure 5.9 Population covered by screening, by sex and result of testing



Source: National center for disease control and public health

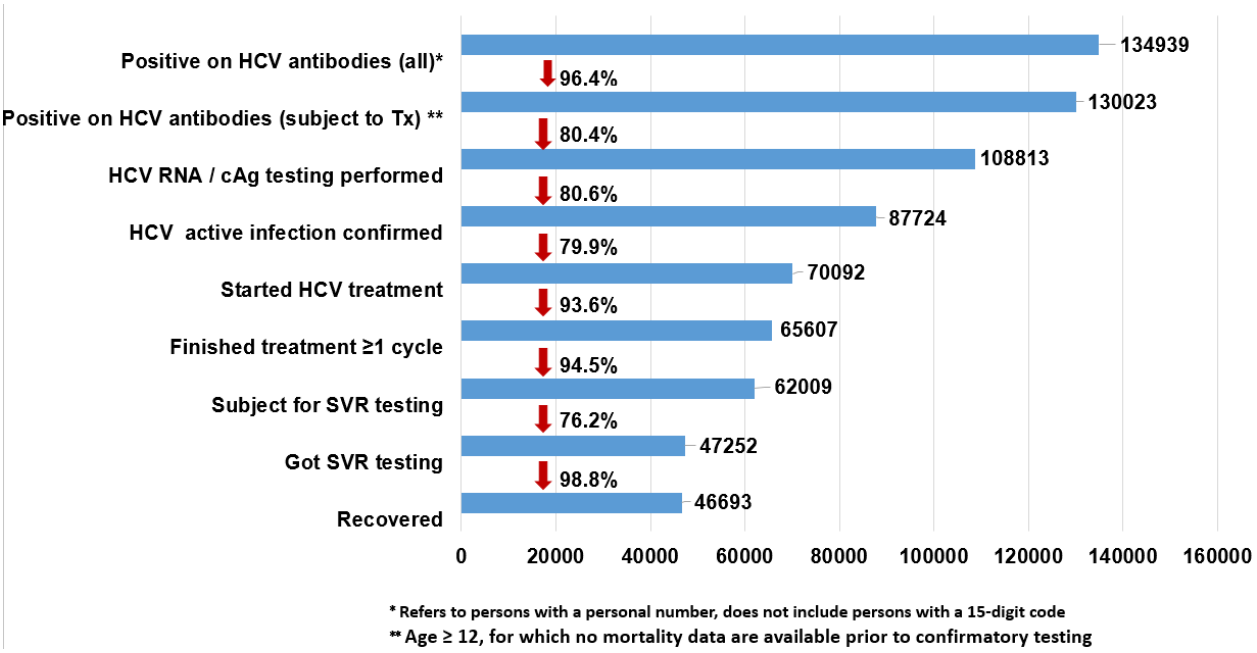
Figure 5.10 Population covered by screening, by age and result of testing



Source: National center for disease control and public health

42 centers across the country (including one in the penitential system) offer to beneficiaries of the elimination program diagnostics and treatment services. Since the start of the program (April 2015), till June 30, 2019, 52053 patients have completed treatment. The cure rate is 98.1%.

Figure 5.11 Hepatitis C, Elimination Program, Treatment Cascade, 28.04.2015 – 30.06. 2020



In 2019, 8,671 new cases of hepatitis C virus were registered (incidence rate - 233.1), including 749 cases in children (incidence - 99.0).

Measles

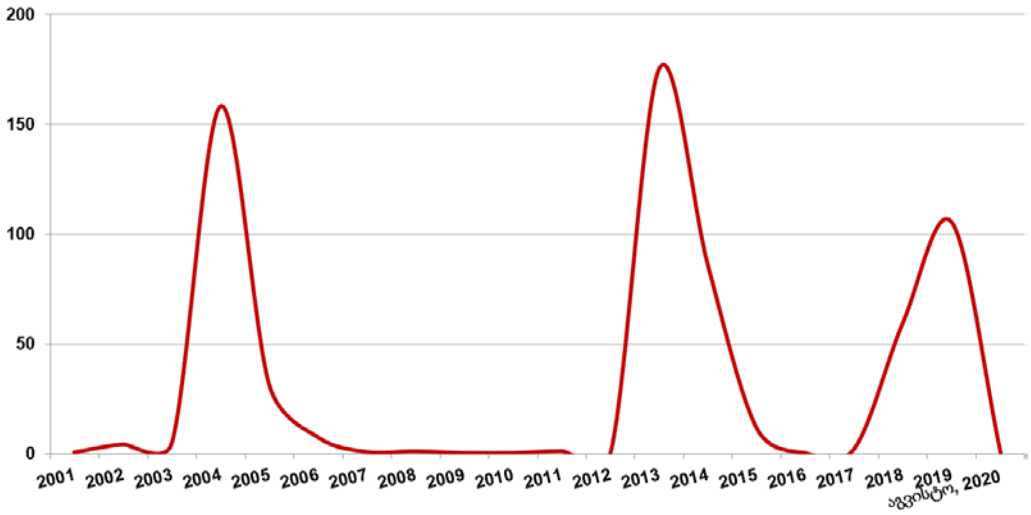
In Georgia, measles registration and epidemiological surveillance are obligatory. In 2004 and 2013 peaks of the measles morbidity were registered. The 2013 peak was caused by the failure of the mass immunization campaign in 2008, resulting in the accumulation of a non-immune layer of the population, which escalated conditions for a measles epidemic. The heaviest burden of morbidity mainly registered in Under-1 and 15-30 years-old age groups.

Since 2013, additional campaigns have been implemented to seize the epidemic: the completion of the anti-measles vaccination course for children aged 14; provision of additional vaccination to population aged 15-30, health professionals and some other specific groups. In 2013-2015, about 150,000 people were vaccinated. As a result, the number of cases of measles in the country significantly decreased: in 2015 there were registered 431 cases of measles; in 2016 - 14 cases. In 2017, the number of measles cases increased and reached 94 cases.

In 2018, there was a significant increase of new cases (2017 - 94; 2018 - 2199) and consequently increasing of incidence (2017- 1.68, 2018 - 59.0).

At the beginning of 2019, in Georgia, as in the most European countries, a measles outbreak started, which was successfully managed, additional immunizations of 170,000 people were conducted, especially in the 20-40 age group. In 2019, 3928 cases of measles were reported, including 1457 in children, with an incidence rates of -105.3 per 100,000 population and 192.5 per 100,000 children correspondingly (Figure 5.12).

Figure 5.12 Measles, incidence per 100000 population

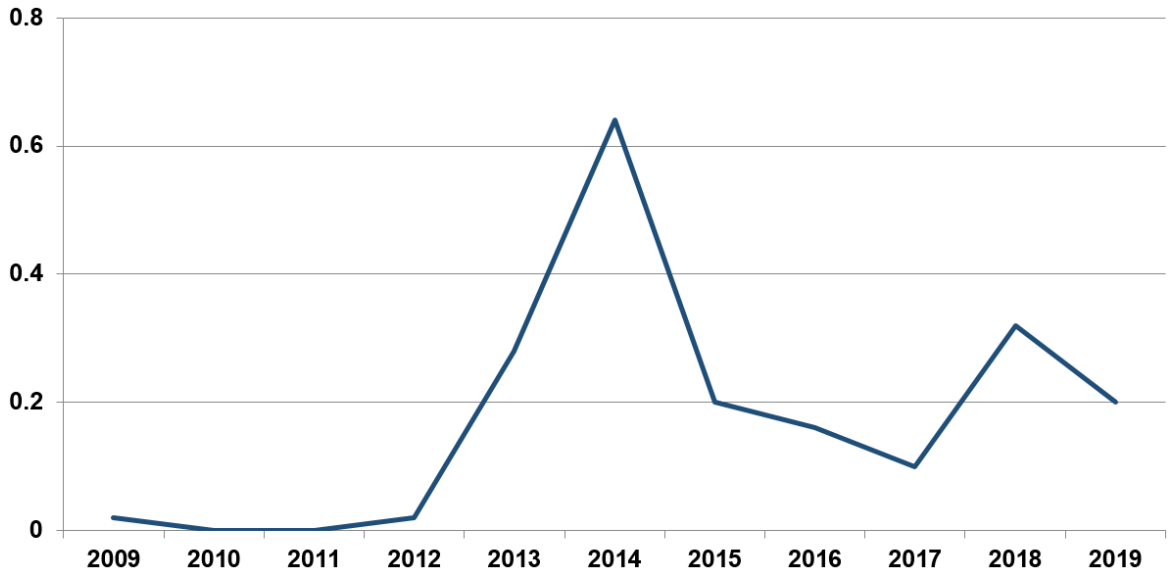


Source: National center for disease control and public health

Crimean-Congo fever

In 2014, in the east part of Georgia, there was an outbreak of Crimean-Congo fever. Total number of registered cases was 24 (incidence per 100000 population – 0.6); 4 cases were fatal (case fatality rate – 16.6). In 2016, a surveillance system revealed 41 suspicious cases of hemorrhagic fever, in 6 cases the diagnosis of the Crimean-Congo hemorrhagic fever was confirmed, 2 of which were fatal (both in foci - Ambrolauri and Terjola). Compared to the previous year, the number of cases has decreased (in 2015, 9 cases of Crimean-Congo hemorrhagic fever were registered, including 1 fatal), although the spread area increased. In 2017, the number of cases decreased, compared to the previous year (the total number of registered cases is 5). In 2019, 8cases of Crimean-Congo fever were registred (in 2018 – 12 cases) (Figure 5.13).

Figure 5.13 Crimean-Congo fever, incidence per 100000 population, Georgia



Source: National center for disease control and public health

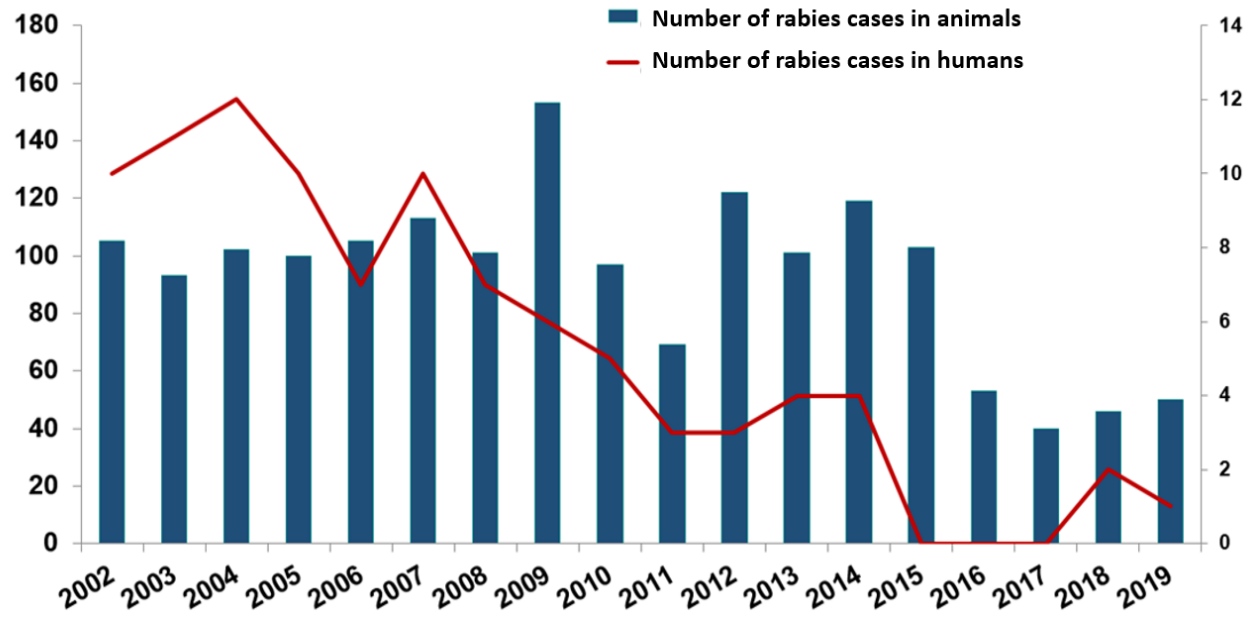
Rabies

In Georgia, during ten years (1997-2006) there were 96 cases of rabies registered, during following years (2007-2014) more 42 cases were identified. The annual maximum number of cases of rabies in humans (21 cases) was recorded in 1996.

Anti-rabies vaccine is administered to approximately 35,000-49,000 people per year. Continious provision of the anti-rabies serum (immunoglobulin) and vaccines created a good background to reach the zero incidence of rabies rate in humans in 2015. In 2016-2017, this sustained. In 2018, after three years of zero incidence, 2 cases of rabies were reported

In 2019, 61,893 cases of contact with animals, suspected of being infected with rabies, were reported (in 2018 - 59,420). Of these contucts, in 53,558 cases vaccination against rabies was conducted under the State program. The number of vaccinated included 18.5% of the combined (vaccine + immunoglobulin) prophylactic vaccinations. In Georgia, in 2019, 1 case of rabies was registered. Annually approximately 35,000 - 49,000 people are vaccinated against rabies (Figure 5.14).

Figure 5.14 Number of cases of rabies, Georgia



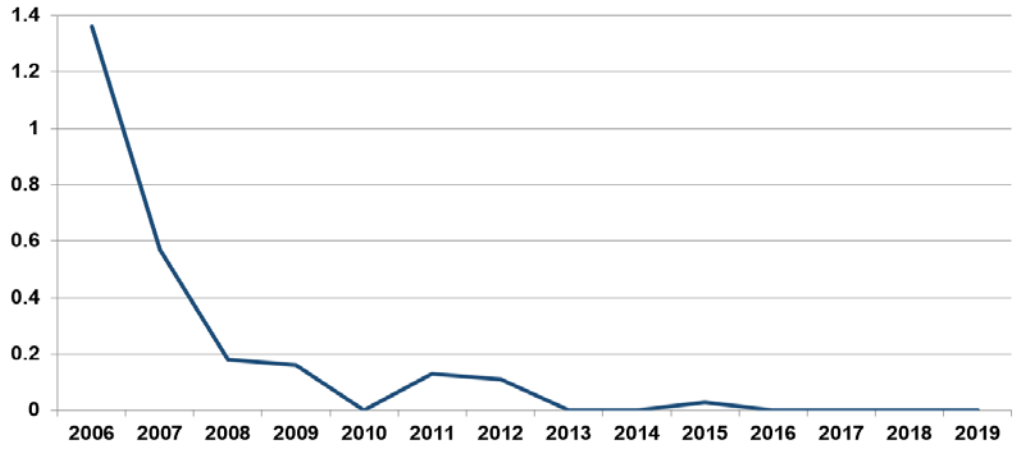
Source: National center for disease control and public health

Malaria

Since 2002, malaria incidence has been substantially reduced, reaching zero point in 2013 – 2014. In 2018, surveillance was conducted on 11 suspected cases, of which malaria was confirmed in 9 cases (all imported). Among the confirmed cases, there were 3 foreign nationals and 6 Georgian nationals, which worked outside the country.

In 2018, the Ministry of Environment Protection and Agriculture of Georgia and the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia organized a vector control of 9261030 m^2 of external and internal territories (in 2017 – 9000000 m^2, in 2016 – 7500000 m^2). In 2019, in Georgia, 8 brought cases of malaria were registered (one foreigner, and 7 citizens of Georgia) (Figure 5.15).

Figure 5.15 Malaria incidence per 100000 population, Georgia



Source: National center for disease control and public health

Sexually transmitted infections

Last years, in Georgia, an increase of the number of cases of sexually transmitted infections is registered. The most prevalent infections are trichomoniasis, chlamydia and syphilis, followed by genital herpes and gonorrhea.

Table 5.14 Sexually transmitted infections, incidence, Georgia

	2017		2018		2019	
	Number of cases	Incidence per 100000 population	Number of cases	Incidence per 100000 population	Number of cases	Incidence per 100000 population
Syphilis	1244	33.4	1243	33.4	1059	28.5
Gonococcal infection	798	21.4	765	20.5	738	19.8
Chlamydia infection	2446	65.6	2084	55.9	1599	43.0
Trichomoniasis	5933	159.1	5137	137.8	4422	118.9

Tabes 5.15 Sexually transmitted infections, distribution of new cases according to age and sex, Georgia, 2019

		Age											
		All		0 - 14		15 - 19		20 - 29		30 - 39		40 +	
	sex	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence	Number of cases	Incidence
Syphilis, all forms of the disease	M	644	36.0	6	1.5	6	5.5	203	82.8	181	143.1	248	31.8
	F	415	21.5	3	0.8	1	1.0	104	45.2	125	47.6	182	18.6
Gonococcal infection	M	596	33.3	0	0.0	31	28.4	331	135.0	185	146.3	49	6.3
	F	142	7.4	0	0.0	0	0.0	42	18.3	63	24.0	37	3.8
Chlamydia infection	M	515	28.8	0	0.0	15	13.8	249	101.6	190	150.2	61	7.8
	F	1044	54.1	1	0.3	25	25.9	499	216.9	322	122.6	197	20.1
Trichomoniasis	M	1027	57.4	0	0.0	26	23.8	491	200.3	359	283.9	151	19.4
	F	3395	175.9	42	11.6	132	136.8	1489	647.1	1118	425.7	614	62.8

Noncommunicable Diseases

Noncommunicable diseases bring the most of the burden of disease in Georgia and have a great impact on the most productive years of life. Noncommunicable diseases affect not only health, but also the country's sustainable development.

Effective prevention and control of noncommunicable diseases requires access to accurate and reliable information, monitoring and identification of health indicators, monitoring and evaluation of interventions.

Since 2017, the Government has launched a program for socially vulnerable population, which considered provision of drugs for chronic noncommunicable diseases (ischemic heart disease, hypertension, heart failure, asthma, diabetes type 2, and thyroid gland diseases) treatment.

In 2018-2019, in Georgia, a Multi-Indicator Cluster Survey (MICS) was conducted. This survey is one of the largest international household surveys developed and supported by the United Nations Children's Fund. MICS conduction began in the 1990s and upto date more than 300 studies have been conducted in more than 100 countries.

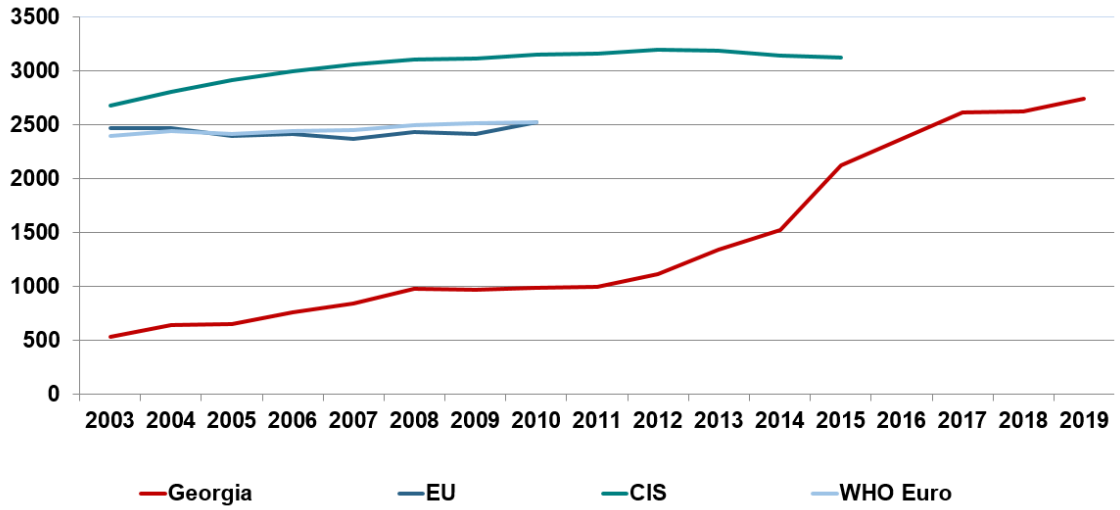
MICS covers more than 180 indicators to help development of interventions (https://www.unicef.org/georgia/ka/).

Diseases of the circulatory system

Diseases of the circulatory system constitute 15.3% of all registered and 7.4% of all new cases of diseases registered in the country. Hypertension, ischaemic heart diseases, and cerebrovascular diseases have high morbidity and mortality.

In 2000–2018, in Georgia, the prevalence of diseases of circulatory system had an increasing trend. In 2019, there is a decrease of the prevalence of the circulatory system diseases (both “all registered” at the end of the year). There is also a decrease of the number of new cases and, consequently, of the incidence rate, both in all age groups and in children (2018 -277.0; 2019 - 92.1).

Figure 5.16 The circulatory system diseases, hospital discharges 100000 population

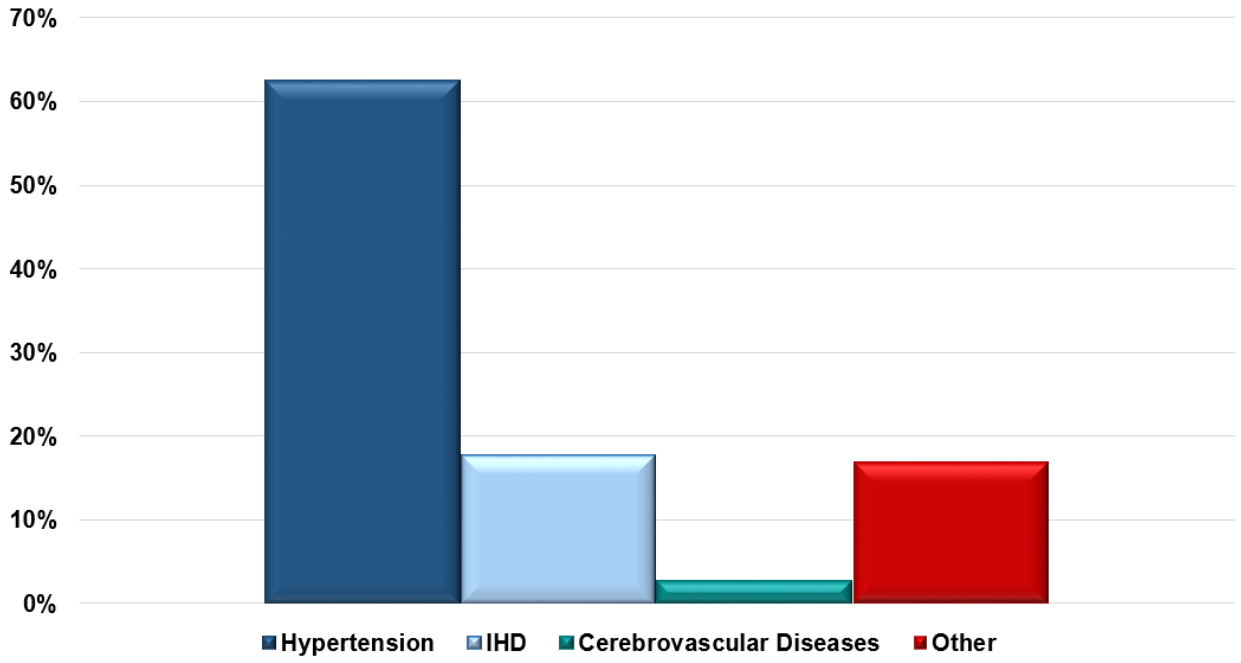


Source: National center for disease control and public health; WHO HFA Database

Table 5.16 Diseases of the circulatory system, morbidity rates, Georgia

	All ages				Children Under-15			
	Number of registered cases by the end of the year	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population	Number of registered cases by the end of the year	Prevalence per 100000 children	Number of new cases	Incidence per 100000 children
2008	306573	7966.1	74379	1932.7	5102	742.6	1250	181.9
2009	326421	8557.6	96038	2517.8	4775	697.9	1359	198.6
2010	337651	8916.8	98193	2593.1	4672	681.8	1103	161.0
2011	363488	9676.4	103466	2754.4	4176	610.8	749	109.5
2012	355657	9537.9	133411	3577.8	4044	593.2	823	120.7
2013	425232	11438.1	196348	5281.5	2347	343.4	1739	254.5
2014	409817	11018.3	165398	4446.9	1789	257.8	2069	298.1
2015	425105	11411.4	174735	4690.5	2793	392.8	3581	503.6
2016	447713	12011.1	190994	5123.9	1815	250.0	1731	238.4
2017	429932	10950.6	184729	4955.2	879	119.0	1555	210.4
2018	408233	10954.7	147979	3970.9	993	133.0	2077	277.0
2019	**386894**	**10399.9**	**140269**	**3770.5**	**437**	**57.7**	**697**	**92.1**

Figure 5.17 Diseases of the circulatory system, registered cases structure (%), Georgia, 2019



Source: National center for disease control and public health

Table 5.17 Circulatory system diseases according to certain groups of diseases, Georgia, 2019

	Registered cases by the end of the year				New cases			
	All ages		In children		All ages		In children	
	Number	%	Number	%	Number	%	Number	%
Diseases of the circulatory system	**386894**	**100**	**437**	**100**	**140269**	**100**	**697**	**100**
Including:								
Acute rheumatic fever	1393	0.4	83	19.0	822	0.6	125	17.9
Chronic rheumatic heart diseases	3724	1.0	22	5.0	1424	1.0	30	4.3
Hypertensive diseases	241746	62.5	7	1.6	65406	46.6	19	2.7
Ischaemic heart diseases	68779	17.8	0	0.0	21920	15.6	0	0.0
Pulmonary heart disease and diseases of pulmonary circulation	1233	0.3	0	0.0	661	0.5	0	0.0
Cerebrovascular diseases	10776	2.8	11	2.5	5564	4.0	0	0.0
Diseases of arteries, arterioles and capillaries	7087	1.8	7	1.6	3032	2.2	6	0.9
Other diseases of the circulatory system	32861	8.5	197	45.1	16269	11.6	138	19.8

Hypertension

The share of hypertension constitutes about 62.5% of all cardiovascular diseases registred by the end of 2019 in Georgia (2018-64.8%). According to the noncommunicable diseases risk-factors survey (STEPS-2016), 37.7% of the population suffers from hypertension. While, according to the previous similar survey data (2010), this share was 33.4%.

Cerebrovascular diseases

Cerebrovascular diseases occupied the third place among diseases of the circulatory system, they account for 2.8% of the cases registered at the end of the year.

Ischaemic heart diseases

In 2019, ischemic heart diseases accounted for 15.6% of new cases of the circulatory system diseases (in 2018 - 16.3%), including angina pectoris - 5.3% (in 2018 - 4.9%); acute myocardial infarction - 1.5% (in 2018 - 2.2%), other acute ischemic diseases - 1.9% (in 2018 – 1.5%).

Table 5.18 Ischaemic heart disease, structure, Georgia, 2019

	New cases	
	Number	%
Ischaemic heart disease	21920	**100**
Angina pectoris	7488	34.2
Acute myocardial infarction	3162	14.4
Other acute ischemic diseases	2651	12.1

Table 5.19 Rheumatic diseases, morbidity rates, Georgia, 2019

	New cases	Incidence per 100000 population
Rheumatic heart diseases	**2246**	**60.4**
Acute rheumatic fever	822	22.1
Including rheumatic fever with heart involvement	214	5.8
Chronic rheumatic heart diseases	1424	38.3

Endocrine, nutritional and metabolic diseases

The share of endocrine system diseases is quite high in the noncommunicable diseases structure, especially diabetes and thyroid disease have high morbidity rates.

Table 5.20 Endocrine, nutritional and metabolic diseases, Georgia

	All ages				Children under-15			
	Number of registered cases by the end of the year	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population	Number of registered cases by the end of the year	Prevalence per 100000 children	Number of new cases	Incidence per 100000 children
2008	119864	3114.6	30580	794.6	9356	1361.8	5323	774.8
2009	124793	3271.6	40054	1050.1	9053	1323.3	7982	1166.7
2010	129731	3426.0	43545	1149.9	8124	1185.6	6416	936.3
2011	140267	3734.0	41141	1095.2	7254	1061.0	6494	949.8
2012	133419	3578.0	60284	1616.7	4797	703.6	5222	766.0
2013	150931	4059.8	66824	1797.5	4574	669.3	5514	806.9
2014	173554	4666.2	77902	2094.5	6234	898.2	6101	879.0
2015	173705	4662.9	88758	2382.6	5656	795.5	7896	1110.5
2016	186814	5011.8	85018	2280.8	5059	696.8	6828	940.4
2017	183093	4911.3	87855	2356.6	4796	649.1	7402	1001.8
2018	183487	4923.8	83135	2230.9	5660	755.0	5485	731.6
2019	**184354**	**4955.5**	**71741**	**1928.4**	**5824**	**769.6**	**6745**	**891.3**

Tabe 5.21 Endocrine, nutritional and metabolic diseases, Georgia

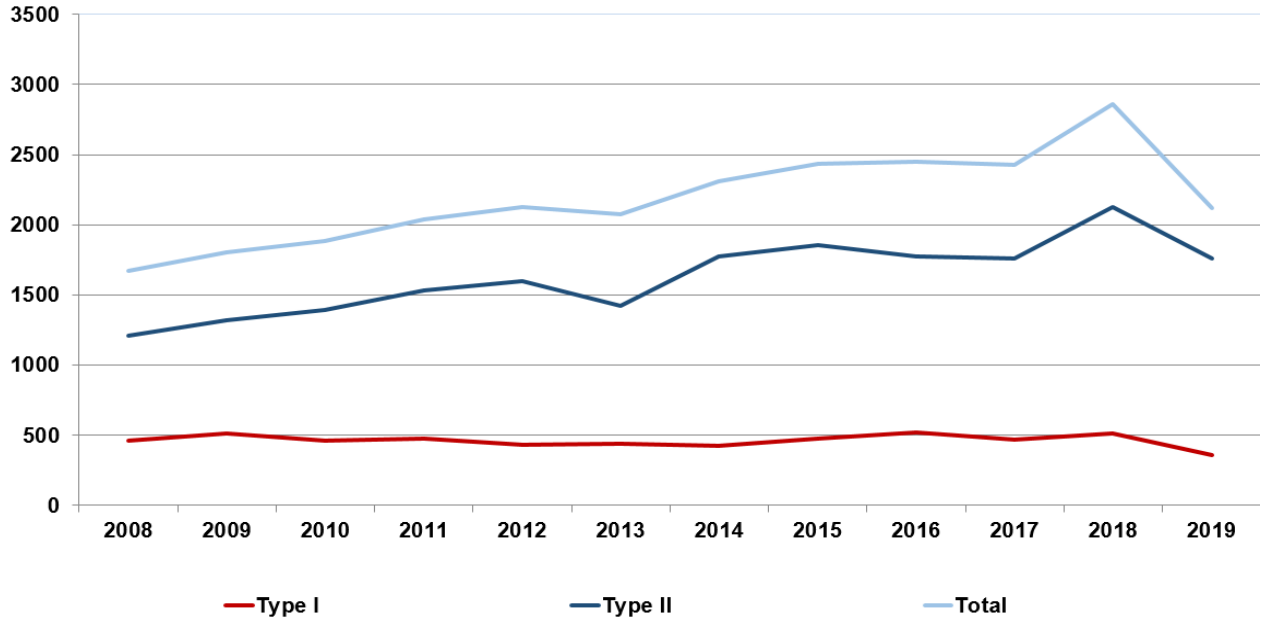
	2018				2019			
	Number of registered cases by the end of the year	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population	Number of registered cases by the end of the year	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population
Endocrine, nutritional and metabolic diseases	**183487**	**4923.8**	**83135**	**2230.9**	**184354**	**4955.5**	**71741**	**1928.4**
Including:								
Sub clinical iodine-deficiency hypothyroidism and other hypothyroidism	35357	939.7	22998	611.2	36318	976.2	18096	486.4
Thyrotoxicosis	8261	219.6	5217	138.7	7753	208.4	3888	104.5
Thyrotoxicosis (hyperthyroidism)	6329	168.2	3130	83.2	6086	163.6	2524	67.8
Diabetes mellitus type I	14277	379.5	2518	66.9	13222	355.4	1552	41.7
Diabetes mellitus type II	63271	1681.6	11752	312.3	65478	1760.1	11662	313.5

Diabetes Mellitus

In Georgia, last years, there is a growth of the number of diabetes cases, which is mainly caused by the growth of diabetes type 2. In 2019, on the background of a decrease of the incidence of diabetes type 1 and type 2, there is a 3.75-fold increase, compared to 2018, of the incidence of type 2 diabetes in children under-15.

According to the results of the STEPS2016 - a risk factors of non-communicable diseases survey, an raised fasting glucose level (6.1 - 7.0 mmol / L) was found in 2% of the population aged 18-69, and a high fasting glucose level (> 7 mmol / L) in 4.5%. of the population (Figure 5.17).

Figure 5.17 Diabetes Mellitus, Prevalence Rate per 100 000 Population, Georgia



Source: National center for disease control and public health

Table 5.22 Diabetes Mellitus, all ages, Georgia

	2018		2019	
New cases	**Total number**	**Incidence per 100000 population**	**Total number**	**Incidence per 100000 population**
Diabetes mellitus	**19054**	**506.4**	**16598**	**446.2**
Diabetes mellitus type I	2518	66.9	1552	41.7
Diabetes mellitus type II	11752	312.3	11662	313.5
Number of patients enrolled by the end of the year	**Total number**	**Prevalence per 100000 population**	**Total number**	**Prevalence per 100000 population**
Diabetes mellitus	**86709**	**2304.6**	**78700**	**2115.5**
Diabetes mellitus type I	14277	379.5	13222	355.4
Diabetes mellitus type II	63271	1681.6	65478	1760.1

Table 5.23 Diabetes Mellitus, children aged under-15, Georgia

	2018		2019	
New cases	**Total number**	**Incidence per 100000 children**	**Total number**	**Incidence per 100000 children**
Diabetes mellitus	**236**	**31.5**	**123**	**16.3**
Diabetes mellitus type I	193	25.7	73	9.6
Diabetes mellitus type II	3	0.4	11	1.5
Number of patients enrolled by the end of the year	**Total number**	**Prevalence per 100000 children**	**Total number**	**Prevalence per 100000 children**
Diabetes mellitus	**464**	**61.9**	**358**	**47.3**
Diabetes mellitus type I	369	49.2	232	30.7
Diabetes mellitus type II	11	1.5	49	6.5

Diseases of the respiratory system

Chronic Respiratory Diseases (CRD)

Chronic respiratory diseases (asthma, respiratory allergic diseases, chronic obstructive pulmonary diseases, occupational lung diseases, pulmonary hypertension) constitute the main share of diseases of the respiratory system.

Tabes 5.24 Diseases of the respiratory system, Georgia

	All ages				Children under-15			
	Number of registered cases	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population	Number of registered cases	Prevalence per 100000 children	Number of new cases	Incidence per 100000 children
2008	362824	9427.8	299800	7790.2	184384	26836.9	169762	24708.7
2009	505340	13248.2	447518	11732.3	259136	37877.3	246604	36045.5
2010	494194	13050.8	439289	11600.9	256897	37490.2	244385	35664.3
2011	558241	14860.9	470741	12531.6	283497	41463.7	259815	38000.0
2012	605179	16229.5	521947	13997.4	299733	43964.7	273598	40131.2
2013	652700	17556.7	557495	14995.8	307330	44971.5	280157	40995.2
2014	701367	18856.9	601832	16180.8	347782	50108.2	317731	45778.5
2015	762210	20460.5	703727	18890.6	351131	49384.3	340217	47849.3
2016	796890	21378.6	744673	19977.8	345386	47570.5	337757	46519.8
2017	704981	18910.4	647066	17356.9	313244	42392.5	305746	41377.8
2018	714425	19171.2	641365	17210.7	300097	40027.9	288774	38517.6
2019	**649309**	**17453.8**	**583156**	**15675.6**	**272370**	**35991.6**	**263511**	**34821.0**

In 2019, chronic obstructive pulmonary diseases (COPD) constituted 73.0% of the lower respiratory chronic diseases (in 2018 - 75.9%).

The main causes of chronic obstructive pulmonary disease are tobacco smoke (including passive smoking) and electronic cigarettes. Other risk factors include: indoor and ambient air pollution, occupational dust and chemicals.

Table 5.25 Respiratory system diseases, groups of diseases, Georgia, 2019

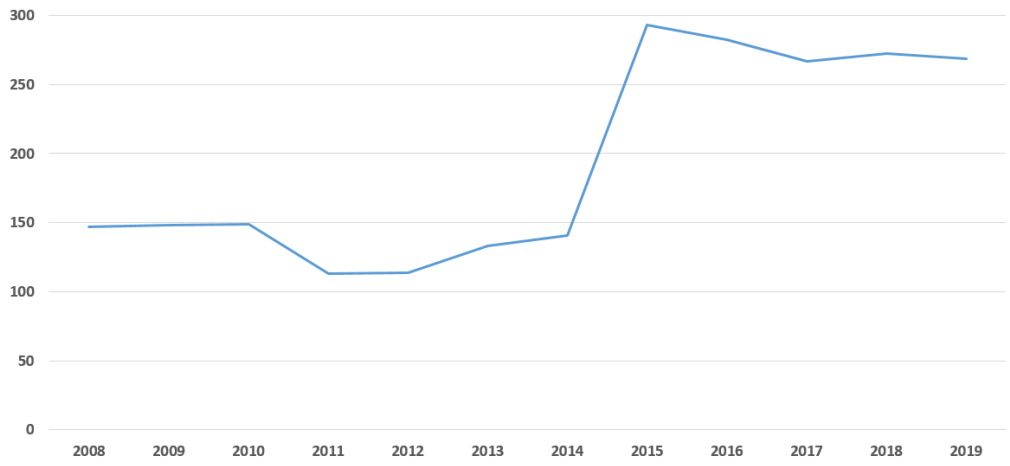
	All ages		Children under-15	
	Prevalence per 100000 population	Incidence per 100000 population	Prevalence per 100000 children	Incidence per 100000 children
Total number of the respiratory diseases	**17453.8**	**15675.6**	**35991.6**	**34821**
Acute upper respiratory infections	9757.4	9757.3	25198.9	25198.9
Pneumonia	918.1	910.6	1096.3	1095.7
Other lower respiratory infections	2707.4	2483.2	5206.5	4892.2
Other diseases of upper respiratory tract	1870.9	1221.5	3072	2344.1
Including allergic rhinitis	334.3	153.4	350.4	200.1
Chronic lower respiratory diseases	1291.3	442.5	269.3	152.1
Including: chronic and not specified bronchitis	739.6	306.8	187.4	121.4
emphysema	28.6	5.9	1.1	0.3
asthma and status asthmaticus	286.7	59	75.5	28.3
other chronic obstructive pulmonary disease	226.7	68.3	4.9	1.8
bronchiectasis	9.6	2.6	0.5	0.3
Lung diseases due to external agents	17.6	11.2	0.3	0.0
Other respiratory diseases principally affecting the interstitium	20.3	17.7	1.5	1.1
Suppurative and necrotic conditions of the lower respiratory tract	2	0.9	0.0	0.0
Other diseases of the respiratory system	116.7	91.3	65.3	55.5

Malignant neoplasms[7]

In Georgia, on January 1, 2015, a Cancer Population Register was launched in order to improve the surveillance of oncological diseases.

In 2019, according to the register data, 10,339 new cases of cancer were registered (including in situ and skin cancers), the incidence rate per 100,000 population - 277.9 (in 2018 - 10417 new cases, incidence rate - 279.5) (Figure 5.18).

Figure 5.18 Malignant Neoplasms, Incidence Rate per 100000 Population, Georgia



Source: National center for disease control and public health

Table 5.26 Malignant neoplasms, incidence rates, Georgia

	Number of new cases	Incidence per 100000 population
2015	11099	297.9
2016	10699	287.0
2017	10149	272.2
2018	10417	279.5
2019	10339	277.9

In 2019, about 56% new cases were registered in females, and about 44% in males

About 68% of all cancers are registered in the working age population (30 - 70 years), about 28% of cases in the age of 70 years and more; 0.7% of all cancer are registered in children under-15; 0.8% of cases - in children (0 - 15 years of age), and 0.5% - in adolescents (15 – 19 years of age).

Tabe 5.27 Five most common sites of cancer in women, Georgia, 2019

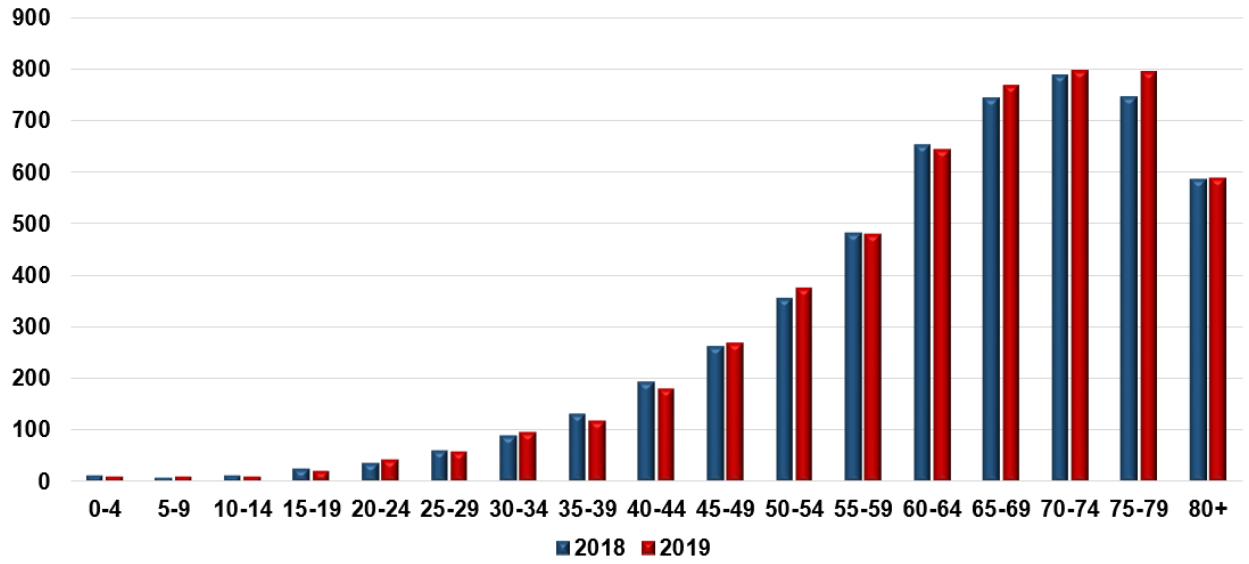
Site	Number of new cases	Share of all new cases registered in women (%)
Breast	1629	28.3
Thyroid gland	855	14.8
Colorectal	335	5.8
Cervix uteri	327	5.7
Corpus uteri	322	5.6

[7] *Download from 09.07.2019*

Table 5.28 Five most common sites of cancer in men, Georgia, 2019

Site	Number of new cases	Share of all new cases registered in men (%)
Trachea, bronchus, lung	623	13.6
Prostate	548	12.0
Bladder	405	8.8
Colorectal	376	8.2
Larynx	215	4.7

Figure 5.19 Cancer, age-specific incidence rate, all sites, both sexes, Georgia



Source: National center for disease control and public health

In 2019, according to the data of the Cancer registry about 40% of all cancers are revealed at the I and II stages (except in situ and lymphoid, hematopoietic and related tissues cancers). The share of new cases revealed at the III and IV stages is still high 43% at the III stage and about 41% at the IV stage (Figure 5.20).

Table 5.29 Cancer, new cases by sites, Georgia

Site	2015	2016	2017	2018	2019
Breast	2067	1901	1823	1760	1652
Thyroid gland	712	918	932	1091	997
Skin, other cancers	816	691	611	723	797
Colorectal	842	792	746	771	711
Trachea, bronchi, lungs	863	808	809	757	697
Prostate	638	506	477	561	548
Bladder	550	536	574	522	515
Uncertain, secondary and unspecified localization	323	304	238	328	339
Corpus uteri	369	373	344	372	327
Stomach	476	447	428	360	322
Cervix uteri	357	406	309	291	322
Other digestive organs	304	263	275	264	318
Other organs of the urinary system	277	294	290	296	308
Ovary	343	268	295	267	279
Brain	263	273	234	216	267
Larynx	321	302	277	263	223
Lip, mouth and throat	103	107	118	166	219
Pancreas	142	162	159	205	160
Lymphoid leukaemia	62	92	82	114	132
Mesothelial and soft tissues	176	138	137	119	121
Myeloid leukaemia	100	88	98	108	120
Other male genitals	104	91	106	103	115
Non-follicular lymphoma	90	121	72	86	112
Bone and articular cartilage	61	54	49	50	85
Multiple myeloma and malignant plasma cells	34	74	59	40	79
Other female genitals	69	64	64	67	79
Other and unspecified malignant tumours of lymphoid, hematopoietic and related tissues	18	17	11	60	70
In situ	110	145	47	28	66
Oesophagus	52	44	48	61	63
Hodgkin's lymphoma	55	71	92	69	50
Melanoma	114	119	96	73	47
Other and unspecified forms of non-Hodgkin lymphoma	148	99	98	95	45
Malignant tumours of the respiratory system and other organs of the chest	52	40	31	25	39
Monocyte leukaemia	10	3	7	16	29
Other identifying forms of T / NK-cell lymphoma	0	0	0	0	21
Mantis T / NK-cell lymphomas	12	10	6	11	21
Other endocrine glands	18	9	16	9	20
Leukaemia with unspecified cell type	35	41	56	56	9
Malignant immunoproliferative diseases	1	0	7	9	6
Other leukaemia with a specified cell type	3	9	4	1	5
Follicular lymphoma	9	19	24	4	4
Total	**11099**	**10699**	**10149**	**10417**	**10339**

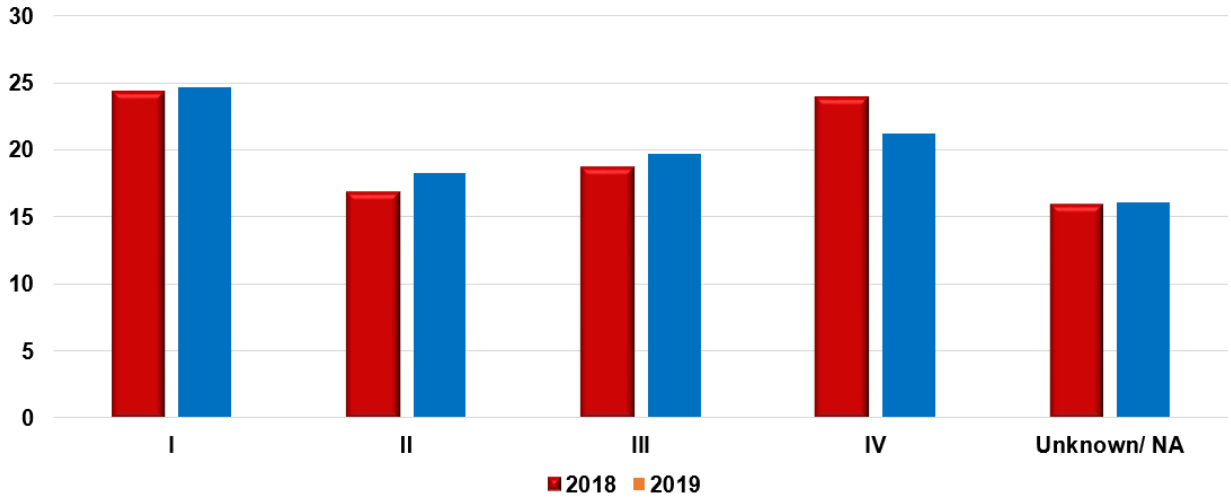
Table 5.30 Cancer, new cases in children by sites, Georgia

	2015	2016	2017	2018	2019
Lymphoid leukaemia	11	19	16	8	21
Brain	20	22	14	12	16
Uncertain, secondary and unspecified localization	5	3	0	6	8
Myeloid leukaemia	9	3	1	5	7
Thyroid gland	2	5	4	3	6
Hodgkin's lymphoma	4	7	7	5	6
Non-follicular lymphoma	1	6	1	4	5
Other and unspecified forms of non-Hodgkin lymphoma	7	2	4	5	4
Other endocrine glands	6	2	4		3
Leukaemia with unspecified cell type	9	9	8	5	2
Other organs of the urinary system	2	6	4	4	2
Other skin cancers	0	0	0	0	1
Lymphoid, hematopoietic and related tissues	2	3	1	5	1
Mesothelial and soft tissues	6	4	6	3	1
Monocyte leukaemia	0	0	0	0	1
Other organs of the digestive system	0	0	2	1	1
Bone and articular cartilage	7	4	7	2	1
Malignant immunoproliferative diseases	0	0	2	1	0
Colorectal	0	0	2	0	0
Stomach	0	1	0	0	0
Other male genitals	0	0	0	2	0
Pancreas	0	0	0	1	0
Ovary	0	1	1	1	0
Other organs of the respiratory system and thoracic cavity	0	0	1	1	0
Lip, mouth and throat	0	1	1	2	0
Bladder	1	2	0	0	0
The present gland	0	1	0	0	0
Total	**92**	**101**	**86**	**76**	**86**

Tabe 5.31 Malignant neoplasms, new cases according to the stage (in %), Georgia *(except in situ and lymphoid, hematopoietic and related tissues cancers)*

Stage	2015	2016	2017	2018	2019
I	21.1	23.9	23.6	24.4	24.7
II	20.9	18.4	18.0	16.9	18.3
III	21.5	20.0	20.0	18.7	19.7
IV	26.5	25.5	26.1	24.0	21.2
Unknown/ NA	10.1	12.2	12.3	16.0	16.1

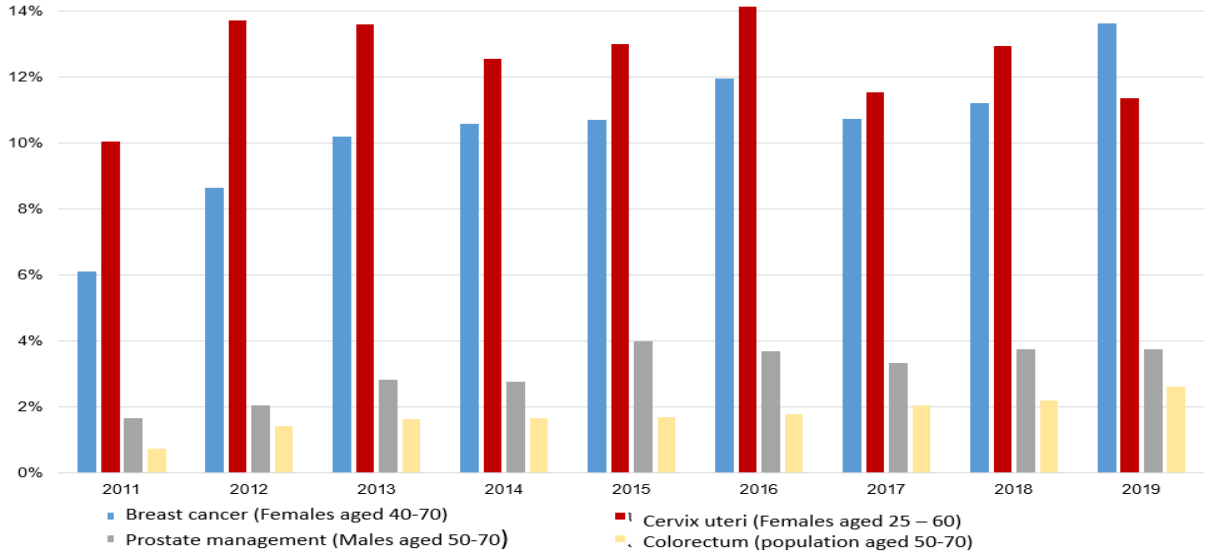
Figure 5.20 Cancer, new cases by stages (%), both sexes, Georgia



Since 2011, the following cancer screening programs have been implemented in the country:

- Breast cancer screening for 40-70-year-old women;
- Cervical cancer screening for 25-60-year-old women;
- Prostate cancer management for 50-70-year-old men;
- Colorectal cancer screening for 50-70-year-old population.

Figure 5.21 Cancer screening rates, target population (%), Georgia[8]



Since 2016, the state has been providing Herceptin delivery in HER-2 positive early aggressive breast cancer patients. The program aims to provide financial access to early diagnosis and treatment of aggressive breast cancer.

According to the noncommunicable disease risk factor survey (STEPS-2016), only 23.9% of women aged 30-49 have undergone cervical cancer screening.

[8]*The State program for regions was launched on May 1, 2011, thus, 2011 data cover only 8 months*

Blood and blood-forming system diseases

In 2019, in Georgia, 28490 cases of blood and blood-forming system diseases (prevalence - 765.8) were registered by outpatient-clinics, including 8613 cases in children (prevalence - 1138.1).

The number of new cases stayed almost unchanged in the general population although, in children it slightly decreased - 801.0 (in 2018 – 882.6).

In children, 70.4% of registered blood and blood-forming diseases, were incident cases.

Table 5.32 Diseases of blood and blood-forming organs, Georgia

	All ages				Children under-15			
	Registered cases	Prevalence per 100000 population	New cases	Incidence per 100000 population	Registered cases	Prevalence per 100000 children	New cases	Incidence per 100000 children
2008	19546	507.9	11672	303.3	8501	1237.3	5686	827.6
2009	25064	657.1	17653	462.8	12414	1814.5	10285	1503.3
2010	23535	621.5	17378	458.9	11977	1747.9	10072	1469.9
2011	21878	582.4	15292	407.1	11290	1651.3	8996	1315.7
2012	25478	683.3	18546	497.4	11504	1687.4	8907	1306.5
2013	24022	646.2	17033	458.2	11284	1651.2	8804	1288.3
2014	28447	764.8	18510	497.7	12064	1738.2	9141	1317.0
2015	37057	994.7	25112	674.1	12792	1799.1	9755	1372.0
2016	33875	908.8	22986	616.7	10889	1499.8	8123	1118.8
2017	33570	900.5	20167	541.0	10823	1464.7	7913	1070.9
2018	30716	824.2	18354	492.5	9821	1310.0	6617	882.6
2019	**28490**	**765.8**	**18326**	**492.6**	**8613**	**1138.1**	**6062**	**801.0**

In 2019, in Georgia, there are 24148 registered anemia cases (84.8% of all registered cases of diseases of blood and blood forming organs; prevalence - 649.1), including 7792 cases in children (prevalence - 1029.7), that is 32.3% (in 2018 – 32.2%) of all registered cases of anemia. The number of anemia cases is 5% higher than in 2018.

Table 5.33 Anemia, Georgia

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total number of registered cases	**20979**	**18545**	**23245**	**22220**	**26173**	**31499**	**29087**	**28555**	**24967**	**24148**
Prevalence rate per 100000 population	554.0	493.7	623.4	597.7	703.7	845.5	780.3	766.0	670.0	649.1
Total number of new cases	**15902**	**13734**	**17334**	**16007**	**17428**	**22893**	**19706**	**17971**	**14882**	**15696**
Incidence rate per 100000 population	419.9	365.6	464.9	430.6	468.6	614.5	528.7	482.1	399.4	421.9

Table 5.34 Anemia in children under-15, Georgia

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total number of registered cases	**11146**	**10339**	**10888**	**10513**	**11391**	**12186**	**10032**	**10347**	**9821**	**7792**
Prevalence rate per 100000 children	1626.6	1512.2	1597.0	1538.4	1641.2	1713.9	1381.7	1400.3	1310.0	1029.7
Total number of new cases	**9472**	**8450**	**8505**	**8257**	**8691**	**9364**	**7595**	**7617**	**6617**	**5535**
Incidence rate per 100000 children	1382.3	1235.9	1247.5	1208.2	1252.2	1317.0	1046.1	1030.8	882.6	731.4

Mental disorders

In 2019, by the end of the year 77111 (in 2018 – 76508) cases of mental and behavioral disorders were registered by outpatient-clinics of Georgia (prevalence – 2072.8), this number included 3269 (in 2018 – 3217) cases in children (prevalence - 432.0). There were 5284 new cases of mental and behavioral disorders registered (in 2018 – 4859), including 817 cases in children (in 2018 – 779); incidence – 142.0 and 108.0, correspondingly.

Table 5.35 Mental and behavioral disorders, morbidity rates, Georgia

	All ages				Children under-15			
	Number of cases registered by the end	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population	Number of cases registered by the end of the year	Prevalence per 100000 children	Number of new cases	Incidence per 100000 children
2008	75448	1960.5	3740	97.2	1672	243.4	284	41.3
2009	76457	2004.4	2505	65.7	1651	241.3	343	50.1
2010	79216	2092.0	2339	61.8	1628	237.6	298	43.5
2011	67736	1803.2	1870	49.8	1159	169.5	137	20.0
2012	78296	2099.7	4075	109.3	1357	199.0	183	26.8
2013	68922	1853.9	3020	81.2	1769	258.9	673	98.5
2014	83546	2246.2	3893	104.7	2015	290.3	414	59.6
2015	86497	2321.9	4229	113.5	2004	281.8	525	73.8
2016	90139	2418.2	5228	140.3	2708	373.0	660	90.9
2017	88610	2376.9	4841	129.9	3059	414.0	649	87.8
2018	76508	2053.1	4859	130.4	3217	429.1	779	103.9
2019	**77111**	**2072.8**	**5284**	**142.0**	**3269**	**432.0**	**817**	**108.0**

Table 5.36 Mental and behavioural disorders by sex and age, Georgia, 2019[9]

	Total	Including				Including women
		0-14	15-19	20-24	25 +	
Mental and behavioural disorders	**5284**	**817**	**304**	**456**	**3707**	**2370**
Including:						
Organic, including symptomatic, mental disorders	915	0	13	38	864	467
Mental and behavioural disorders due to psychoactive substances use	268	0	8	24	236	9
Schizophrenia, schizotypal and delusional disorders	1261	10	46	111	1094	552
Including schizophrenia	442	4	5	18	415	195
Mood (affective) disorders	437		13	35	389	257
Neurotic, stress-related and somatoform disorders	971	12	58	167	734	577
Behavioural syndromes associated with physiological disturbances and physical factors	18	0	1	4	13	10
Disorders of adult personality and behaviour	96	0		30	66	35
Mental retardation	973	496	120	47	310	349
Disorders of psychological development	89	87	2	0		17
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	256	212	43	0	1	97

Diseases of the nervous system

In 2019, in Georgia, there were 136502 cases of the nervous system diseases registered (prevalence - 3669.2), including 50927 new cases (incidence - 1368.9).

[9] *Data of neuropsychological dispensaries*

In 2018, tendency of increase of the number of new cases was broken off, in 2019, the number of new cases and incidence declined in the general population and in children continued. In 2017, 61130 new cases, including 8446 in children, were registered, in 2018 – 58139 and 7966, correspondingly, in 2019 - 7635.

Tabe 5.37 Diseases of the nervous system, Georgia

	All ages				Children Under-15			
	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 children	Number of registered cases	Prevalence per 100000 children
2009	121062	3173.8	45489	1192.6	27474	4015.8	13149	1922.0
2010	125619	3317.4	47742	1260.8	26896	3925.1	11406	1664.5
2011	143717	3825.9	46095	1227.1	28079	4106.8	10340	1512.3
2012	156826	4205.7	68169	1828.1	26115	3830.5	8130	1192.5
2013	139602	3755.1	57971	1559.3	18434	2697.4	8670	1268.7
2014	154876	4164.0	66823	1796.6	19526	2813.3	10241	1475.5
2015	175194	4702.8	73538	1974.0	19264	2709.4	11077	1557.9
2016	156842	4207.7	69178	1855.9	15356	2115.0	8739	1203.6
2017	154472	4143.6	61130	1639.8	15596	2110.7	8446	1143.0
2018	151315	4060.5	58139	1560.5	14411	1922.2	7966	1062.5
2019	**136502**	**3669.2**	**50927**	**1368.9**	**14065**	**1858.6**	**7635**	**1008.9**

Table 5.38 Diseases of the nervous system by disease groups, Georgia

	2018				2019			
	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 population
Diseases of the nervous system	**151315**	**4060.5**	**58139**	**1560.5**	**136502**	**3669.2**	**50927**	**1368.9**
Including:								
Inflammatory diseases of the central nervous system	4819	129.3	2371	63.6	3120	83.9	1386	37.3
Systemic atrophies primarily affecting the central nervous system	3264	87.6	1626	43.6	1923	51.7	697	18.7
Extrapyramidal and movement disorders	14334	384.6	3204	86.0	9839	264.5	3037	81.6
Other degenerative and demyelinating diseases of the nervous system	3438	92.3	1120	30.1	4090	109.9	1318	35.4
Episodic and paroxysmal disorders	48366	1297.9	18021	483.6	48010	1290.5	20325	546.3
Including: Epilepsy and status epilepticus	10959	294.1	1839	49.3	13620	366.1	1699	45.7
Disorders of the peripheral nervous system	45994	1234.2	17521	470.2	35361	950.5	13499	362.9
Cerebral palsy and other paralytic syndromes	6652	178.5	1748	46.9	7003	188.2	1305	35.1

Diseases of the eye and adnexa

In 2019, 72983 (including 15298 in children) new cases of the eye and adnexa diseases were registered by outpatient-clinics of Georgia, incidence per 100000 population - 1961.8, incidence in children - 2021.5. Incidence rates in general population and in children reduced 2-folds.

Tabe 5.39 Diseases of the eye and adnexa, Georgia

	All ages				In children			
	Number of registered cases	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 population
2008	104858	27724.7	35072	911.3	17102	2489.2	8648	1258.7
2009	123384	3234.7	47797	1253.1	19241	2812.4	10415	1522.3
2010	124576	3289.8	49531	1308.0	17695	2582.3	9679	1412.5
2011	138351	3683.0	51745	1377.5	18423	2694.5	10296	1505.9
2012	159139	4267.8	77822	2087.0	20442	2998.4	11359	1666.1
2013	190355	5120.3	92013	2475.0	22929	3355.2	14048	2055.6
2014	215543	5795.1	106763	2870.4	29348	4228.4	21575	3108.5
2015	225357	6049.4	107097	2874.9	27092	3810.3	16883	2374.5
2016	193482	5190.7	93273	2502.3	20363	2804.6	14233	1960.3
2017	244936	6570.2	125672	3371.0	41382	5600.4	32877	4449.4
2018	261296	7011.7	114724	3078.6	49154	6556.3	30262	4036.4
2019	**173487**	**4663.4**	**72983**	**1961.8**	**23896**	**3157.7**	**15298**	**2021.5**

The share of lens disorders (cataract) accounts for 17.3% of the total number of cases of diseases of eye and adnexa, glaucoma – 4.8%. Disorders of refraction and accomodation constitute about 27.1% of new cases of diseases of the eye and adnexa.

Tabe 5.40 Diseases of the eye and adnexa by certain groups of diseases, all ages, Georgia

	2018				2019			
	Number of registered cases	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population	Number of registered cases	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population
Diseases of the eye and adnexa	**261296**	**7011.7**	**114724**	**3078.6**	**173487**	**4663.4**	**72983**	**1961.8**
Including:								
Disorders of lens (cataract)	58255	1563.2	19645	527.2	45753	1229.9	12595	338.6
Glaucoma	25588	686.6	7500	201.3	17789	478.2	3517	94.5
Disorders of refraction and accommodation	104844	2813.4	48325	1296.8	52999	1424.6	19742	530.7

In children, almost 27% of new cases are caused by accommodation and refractive disorders.

Tabe 5.41 Diseases of the eye and adnexa, certain groups of diseases, children under-15, Georgia

	2018				2019			
	Number of registered cases	Prevalence per 100000 children	Number of new cases	Incidence per 100000 children	Number of registered cases	Prevalence per 100000 children	Number of new cases	Incidence per 100000 children
Diseases of the eye and adnexa	**49154**	**6556.3**	**30262**	**4036.4**	**23896**	**3157.7**	**15298**	**2021.5**
Including:								
Disorders of lens (cataract)	159	21.2	33	4.4	158	20.9	22	2.9
Glaucoma	48	6.4	16	2.1	65	8.6	11	1.5
Disorders of refraction and accommodation	29639	3953.3	18357	2448.5	8785	1160.9	4133	546.1

Diseases of the ear and mastoid process

In 2019, in Georgia, there were 44899 new cases of diseases of ear and mastoid process registered by the outpatient-clinics (incidence per 100000 population - 1206.9), including 17400 cases in children (incidence per 100000 children - 2299.3). In 2019, numbers of new cases of ear diseases in the general population and in children significantly reduced.

Table 5.42 Diseases of the ear and mastoid process, Georgia

	All ages				Children under-15			
	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 population
2008	32167	835.8	19900	517.1	8859	1289.4	6872	1000.2
2009	42031	1101.9	28289	741.6	13682	1999.9	11621	1698.6
2010	41059	1084.3	27902	736.8	12559	1832.8	10622	1550.1
2011	45463	1210.3	29862	795.0	14797	2164.2	12269	1794.4
2012	70444	1889.1	53128	1424.8	20356	2985.8	17172	2518.8
2013	75367	2027.3	55105	1482.2	21963	3213.8	17983	2631.4
2014	75552	2031.3	54665	1469.7	24709	3560.1	20880	3008.4
2015	100402	2695.2	69877	1875.8	30229	4251.5	26652	3748.4
2016	90886	2438.3	65485	1756.8	29690	4089.2	25958	3575.2
2017	87283	2341.3	59082	1584.8	29754	4026.7	24600	3329.2
2018	91613	2458.4	55241	1482.4	32553	4342.0	24590	3279.9
2019	**70751**	**1901.8**	**44899**	**1206.9**	**22982**	**3036.9**	**17400**	**2299.3**

Tabe 5.43 Diseases of the ear and mastoid process, all ages, Georgia

	2018				2019			
	Number of registered cases	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population	Number of registered cases	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population
Diseases of the ear and mastoid process	**91613**	**2458.4**	**55241**	**1482.4**	**70751**	**1901.8**	**44899**	**1206.9**
Including:								
Otitis media	36755	986.3	25334	679.8	27201	731.2	18028	484.6

Congenital malformations, deformations and chromosomal abnormalities

In 2019, in Georgia, 8533 cases of congenital malformations were registered, prevalence per 100000 population - 229.4, including 3081 cases in children (prevalence per 100000 children – 82.8).

The prevalence and incidence rates in the general population and incidence rates have increased, compared to 2018, (general prevalence in 2018 - 188.4, in 2019 – 229.4).

Table 5.44 Congenital malformations, deformations and chromosomal abnormalities, Georgia

	All ages				Children under-15			
	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 population
2008	7251	188.4	1685	43.8	6100	887.8	1318	191.8
2009	8148	213.6	1887	49.5	6749	986.5	1382	202.0
2010	8959	236.6	2443	64.5	7547	1101.4	1932	281.9
2011	9198	244.9	1664	44.3	7677	1122.8	1415	207.0
2012	7614	204.2	2073	55.6	6059	888.7	1618	237.3
2013	6432	173.0	2096	56.4	4989	730.0	1673	244.8
2014	7217	194.0	2260	60.8	6030	868.8	1972	284.1
2015	6749	181.2	2869	77.0	4762	669.7	1775	249.6
2016	4865	130.5	2052	55.1	3439	473.7	1718	236.6
2017	5546	148.8	2353	63.1	3855	521.7	1813	245.4
2018	6275	168.4	2527	67.8	4114	548.7	1565	208.7
2019	**8533**	**229.4**	**3081**	**82.8**	**5141**	**679.3**	**2186**	**288.9**

Table 5.45 Congenital malformations, deformations and chromosomal abnormalities, children under-5, prevalence per 100000 children, Georgia, 2019

	Children under-5		Including infants	
	New cases	Prevalence per 100000 children	New cases	Prevalence per 100000 infants
Congenital malformations, deformations and chromosomal abnormalities	**1477**	**540.6**	**772**	**1557.5**
Including:				
Congenital malformations of the nervous system	176	64.4	100	201.8
*Including: A*nencephaly and similar malformations	3	1.1		
Congenital hydrocephalus	26	9.5	11	22.2
Spina bifida	9	3.3	5	10.1
Congenital malformations of the circulatory system	498	182.3	231	466.0
Including: Congenital malformations of cardiac chambers and connections	47	17.2	14	28.2
Congenital malformations of cardiac septa	242	88.6	111	223.9
Congenital malformations of pulmonary and tricuspid valves	32	11.7	21	42.4
Congenital malformations of aortic and mitral valves	23	8.4	7	14.1
Other congenital malformations of heart	27	9.9	13	26.2
Congenital malformations of the respiratory system	7	2.6	2	4.0
Cleft lip and cleft palate	20	7.3	6	12.1
Esophageal atresia with and without tracheal-esophageal fistula	4	1.5	4	8.1
Congenital absence, atresia and stenosis of large intestine	3	1.1	1	2.0
Congenital malformations of genital organs	101	37.0	54	108.9
Congenital malformations of the urinary system	35	12.8	17	34.3
Including: Congenital hydro*nephrosis*	7	2.6	4	8.1
Congenital malformations and deformations of the musculoskeletal system	447	163.6	287	579.0
Including: osteogenesis imperfecta	19	7.0	5	10.1
Down syndrome	122	44.7	36	72.6

Table 5.46 Congenital malformations, deformations and chromosomal abnormalities in children under-5, Georgia, 2019

	Children under-5		Including infants	
	New cases	Incidence per 100000 children	New cases	Incidence per 100000 infants
Total	595	217.8	375	756.6
Including				
Congenital malformations of the nervous system	60	22.0	38	76.7
*Including: A*nencephaly and similar malformations				
Congenital hydrocephalus	6	2.2	5	10.1
Spina bifida	1	0.4	1	2.0
Congenital malformations of the circulatory system	122	44.7	73	147.3
Including: Congenital malformations of cardiac chambers and connections	12	4.4	5	10.1
Congenital malformations of cardiac septa	47	17.2	27	54.5
Congenital malformations of pulmonary valves	8	2.9	3	6.1
Congenital malformations of aortic and mitral valves	5	1.8	3	6.1
Congenital malformations of great arteries	5	1.8	2	4.0
Other congenital malformations of the circulatory system	2	0.7	0	0.0
Congenital malformations of respiratory system	7	2.6	2	4.0
Cleft lip and cleft palate	4	1.5	4	8.1
Atresia of oesophagus	1	0.4	0	0.0
Congenital absence, atresia and stenosis of large intestine	52	19.0	29	58.5
Congenital malformations of genital organs	5	1.8	2	4.0
Congenital malformations of the urinary system	1	0.4	0	0.0
Including congenital hydronephrosis	269	98.5	191	385.3
Congenital malformations of the musculoskeletal system	1	0.4	1	2.0
Including osteogenesis imperfecta	44	16.1	12	24.2

Diseases of the digestive system

In 2019, 302668 new cases of the digestive system diseases were registered by the outpatient-clinics of Georgia (incidence per 100000 population - 8135.9), including 49732 cases in children (incidence per 100000 children - 6571.7). The increase of new cases in children is associated with the increase of cases of oral and dental diseases.

Table 5.47 Diseases of the digestive system, Georgia

	All ages				Children under-15			
	Number of registered cases	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population	Number of registered cases	Prevalence per 100000 children	Number of new cases	Incidence per 100000 children
2008	198957	5169.8	92400	2401.0	24501	3566.1	16901	2459.9
2009	280680	7358.4	166087	4354.2	25164	3678.2	19030	2781.6
2010	261977	6918.4	151848	4010.0	23718	3461.3	17296	2524.1
2011	422928	11258.7	224583	5978.6	35827	5240.0	26372	3857.1
2012	446472	11973.4	280122	7512.2	45094	6614.4	35439	5198.2
2013	427396	11496.3	292362	7864.1	46291	6773.7	35520	5197.6
2014	570337	15334.1	349591	9399.1	53277	7676.1	39853	5742.0
2015	632547	16979.9	376021	10093.8	76030	10693.1	53677	7549.3
2016	559566	15011.8	342762	9195.5	74614	10276.7	58565	8066.2
2017	495203	13283.3	267788	7183.1	50095	6779.5	39396	5331.6
2018	715983	19213.0	349905	9389.5	74217	9899.3	47036	6273.8
2019	**572084**	**15377.9**	**302668**	**8135.9**	**70126**	**9266.6**	**49732**	**6571.7**

Tabe 5.48 Diseases of the digestive system, Georgia, 2019

	New cases	Incidence per 100000 population	Including in children	
			New cases	Incidence per 100000 children
Total	**228520**	**6142.7**	**39730**	**5250**
Including:				
Diseases of oral cavity, salivary glands and jaw	228520	6142.7	39730	5250
Diseases of oesophagus, stomach and duodenum	24782	666.2	2347	310.1
Including: gastric and duodenal peptic ulcers	4011	107.8	59	7.8
Liver diseases	3451	92.8	14	1.8
Disorders of gallbladder, biliary tract and pancreas	12732	342.2	566	74.8
Including: cholelithiasis and cholecystitis	8616	231.6	400	52.9
acute pancreatitis and other disorders of pancreas	904	24.3	11	1.5

Table 5. Diseases of the digestive system, hospital discharges, Georgia, 2019

	Number of hospital discharges, all ages	Including deaths	Case fatality rate (%)	Number of hospital discharges, children under-15	Including deaths in children	Case fatality rate (%) in children
Diseases of the digestive system	**43972**	**991**	**2.3**	**4419**	**7**	**0.2**
Diseases of oral cavity, salivary glands and jaw	2459	0	0.0	438		0.0
Gastric and duodenal, peptic ulcers	4631	193	4.2	16		0.0
Gastritis and duodenitis	140	4	2.9	38		0.0
Diseases of appendix	8779	2	0.0	2372	1	0.0
Hernia	8295	21	0.3	918		0.0
Diseases of peritoneum	865	134	15.5	22		0.0
Diseases of liver	1508	237	15.7	20	3	15.0
Cholecystitis, cholelithiasis and other disorders of biliary tract	10062	80	0.8	26		0.0

Diseases of the genitourinary system

In 2019, 129653 new cases of the genitourinary system diseases were registered by the outpatient clinics of Georgia, incidence per 100000 population - 3479.2, including 5256 cases in children, incidence per 100000 children - 701.1.

Table 5.50 Diseases of the genitourinary system, Georgia

	All ages				Children under-15			
	Number of registered cases	Prevalence per 100000 population	Number of new cases	Incidence per 100000 population	Number of registered cases	Prevalence per 100000 children	Number of new cases	Incidence per 100000 children
2008	91904	2388.1	48298	1255.0	5861	853.1	3878	564.4
2009	112647	2953.2	64652	1694.9	7981	1166.6	6152	899.2
2010	121634	3212.1	71952	1900.1	7193	1049.7	5582	814.6
2011	138016	3674.1	77139	2053.5	6889	1007.6	5215	762.7
2012	198555	5324.8	127148	3409.8	5952	873.0	4259	624.7
2013	193595	5207.4	111163	2990.1	5936	868.6	3927	574.6
2014	203414	5469.0	114351	3074.4	7835	1128.9	5428	782.1
2015	236430	6346.6	130256	3496.5	8840	1243.3	6008	845.0
2016	228166	6121.1	141797	3804.1	7674	1057.0	5537	762.6
2017	236713	6349.6	124934	3351.2	7358	995.8	5181	701.2
2018	242483	6506.9	129653	3479.2	7933	1058.1	5256	701.1
2019	**188087**	**5055.9**	**101647**	**2732.3**	**7266**	**960.1**	**6169**	**815.2**

Table 5.51 Diseases of the genitourinary system by groups of diseases, Georgia, 2019

	Number of registered cases	Prevalence per 100000 population	New cases	Incidence per 100000 population
Diseases of the genitourinary system	**188087**	**5055.9**	**101647**	**2732.3**
Glomerulonephritis, nephritic and nephritic syndromes	4412	118.6	1907	51.3
Chronic tubulo-interstitial nephritis (kidney infections)	4367	117.4	1925	51.7
Renal failure	4021	108.1	1865	50.1
Urolithiasis	30828	828.7	14473	389
Diseases of male genital organs	34557	1929.9	16374	914.4
Including: Hyperplasia of prostate	16156	902.3	6775	378.4
Inflammatory diseases of prostate	8102	452.5	3829	213.8
Male infertility	1282	118.3	686	63.3
Diseases of female genital organs	70487	3653	39235	2033.4
Including: Salpingitis, oophoritis	10237	530.5	5061	262.3
Endometriosis	4127	213.9	2078	107.7
Erosion and ectropion of cervix uteri	5964	309.1	2969	153.9
Disorders of menstruation	13281	1600.5	7643	921.1
Menopausal and other perimenopausal disorders	9641	1161.8	4058	489
Female infertility	4097	493.7	1684	202.9

Table 5.52 Diseases of the genitourinary system, hospital discharges, Georgia, 2019

	All ages			Children under-15	
	Number of hospital discharges, all ages	Including deaths		Number of hospital discharges	
		Total	Case fatality rate (%)	Total	Case fatality rate (%)
Total	**26170**	**326**	**1.2**	**2673**	**0.1**
Including:					
Glomerulonephritis, nephritic and nephritic syndromes	265	1	0.4	128	0.8
Chronic tubulo-interstitial nephritis (kidney infections)	3577	17	0.5	276	0.0
Urolithiasis	2827	4	0.1	32	0.0
Prostate disorders	1432	4	0.3	0	0.0

Injury, poisoning and certain other consequences of external causes

In 2019, 119114 cases of injury, poisoning and certain other consequences of external causes were registered (prevalence rate - 3201.9), including 115082 new cases (incidence per 100000 population - 3093.5).

Table 5.53 Injury, poisoning and certain other consequences of external causes, Georgia

	All ages				Children under-15			
	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 population	Number of registered cases	Prevalence per 100000 children	Number of registered cases	Prevalence per 100000 children
2008	31088	807.8	29201	758.8	7298	1062.2	6978	1015.6
2009	44673	1171.2	42147	1104.9	7428	1085.7	7211	1054.0
2010	39522	1043.7	38302	1011.5	7361	1074.2	7286	1063.3
2011	43384	1154.9	35914	956.1	7651	1119.0	7087	1036.5
2012	75968	2037.3	67898	1820.9	8929	1309.7	8454	1240.0
2013	65192	1753.6	58260	1567.1	8571	1254.2	8003	1171.1
2014	72035	1936.7	66932	1799.5	10293	1483.0	9890	1424.9
2015	93066	2498.2	87101	2338.1	13317	1872.9	12951	1821.5
2016	105000	2816.9	100176	2687.5	16721	2303.0	16104	2218.0
2017	80307	2154.2	73842	1980.7	12264	1659.7	11556	1563.9
2018	119577	3208.8	113374	3042.3	24108	3215.6	23193	3093.6
2019	**119114**	**3201.9**	**115082**	**3093.5**	**28349**	**3746.1**	**27907**	**3687.7**

Among new cases of injuries, poisoning and some other consequences of external causes, 24.1% are injuries of children. In the general population and in children, a high incidence is registered in “poisoning by drugs, medicaments and biological substances”, “toxic effects of substances chiefly nonmedical as to source”, and “other external factors”. These disorders account for 23.7% (in 2018 - 50%) of all ages; in children aged under-15, this share is about 30% (in 2018 - 69%). Share of the group of “superficial injury, open wound, injury of blood vessels” is 21.6% (in 2018 - 18.6%) in the general population, and 17.6% (in 2018 - 21.2%) in children.

Tabe 5.54 Injury, poisoning and certain other consequences of external causes, incidence rates and case distribution, Georgia, 2019

	All ages			Children under-15		
	New cases	Incidence per 100000 population	%	New cases	Incidence per 100000 children	%
Total	**115082**	**3093.5**	**100**	**27907**	**3687.7**	**100**
Including						
Fracture of skull and facial bones, neck, ribs, sternum and spine	4552	122.4	4.0	515	68.1	1.8
Intracranial injury	1198	32.2	1.0	124	16.4	0.4
Injuries to upper and lower limbs	9159	246.2	8.0	1415	187	5.1
Dislocation, sprain and strain of joints and ligaments	10048	270.1	8.7	1492	197.2	5.3
Injuries to the thorax, intra-abdominal and pelvic organs	1907	51.3	1.7	210	27.7	0.8
Wounds, injuries of blood vessels, superficial injuries	24896	669.2	21.6	4919	650	17.6
Injuries of nerves and spinal cord	521	14	0.5	74	9.8	0.3
Burns and corrosions	1340	36	1.2	325	42.9	1.2
Poisoning by drugs, medicaments and biological substances, toxic effects of substances chiefly nonmedical as to source	29339	788.6	25.5	8859	1170.7	31.7
Including: Poisoning by drugs, medicaments and biological substances	809	21.7	0.7	99	13.1	0.4
Toxic effects of substances chiefly nonmedical as to source	27307	734	23.7	8322	1099.7	29.8

CHAPTER 6

Maternal and Child Health

Maternal and Child Health[10]

Tabe 6.1. Births according to the National Statistics Office of Georgia, maternal and child mortality, Georgia[11]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total number of live births	62585	58014	57031	57878	60635	59249	56569	53293	51138	48296
Total number of stillbirths	682	554	647	549	637	589	558	506	436	456
Total number of infant deaths (at the age under-1)	741	634	617	608	578	507	507	512	416	380
Total number of early neonatal deaths (at the age 0-6 days)	410	349	373	387	205	211	231	238	166	135
Total number of late neonatal deaths (at the age 7-28 days)	186	139	151	97	139	152	125	124	88	118
Total number of post neonatal deaths (at the age 29-365 days)	145	146	93	124	137	162	151	150	162	127
Total number of under five deaths	830	691	705	692	559	605	604	594	499	452
Total number of maternal deaths	12	16	13	16	19	19	13	7	14	14
Stillbirth rate per 1000 births	10.9	9.5	11.2	9.4	10.5	9.8	9.8	9.4	8.5	9.4
Early neonatal mortality rate per 1000 live births	6.6	6.1	6.6	6.7	3.4	3.6	4.1	4.5	3.2	2.8
Late neonatal mortality rate per 1000 live births	3.0	2.4	2.7	1.7	2.3	2.5	2.2	2.3	1.7	2.4
Perinatal mortality rate per 1000 births	17.4	15.6	17.7	16.1	13.8	13.4	13.8	13.8	11.7	12.1
Infant mortality rate per 1000 live births	12.0	11.0	10.8	10.5	9.5	8.6	9.0	9.6	8.1	7.9
Under-5 mortality rate per 1000 live births	13.4	12.0	12.4	12.0	9.3	10.2	10.7	11.1	9.8	9.4
Maternal mortality rate per 100000 live births	21.7	27.6	22.8	32.2	31.5	32.2	23.0	13.1	27.4	28.9

In 2016, in order to improve the maternal and child health surveillance in the country, an „Electronic Module for Pregnant and Newborn Health Surveillance", so-called "birth" registry was introduced. Each pregnant woman, starting from the first antenatal visit, including childbirth, is continiously monitored through the electronic module.

The system also records newborn's health status. For Georgia, considering the fact that globally there are only few countries, which have got „birth" registries, this initiative is a crucial step forward.

[10] *According to the „Electronic Module for Pregnant and Newborn Health Surveillance"*
[11] *Since 2014, reconciled data of the MOLHSA and GEOSTAT*

Pregnancy

SDG 3.7 has been defined as universal access to sexual and reproductive healthcare services including to antenatal services.

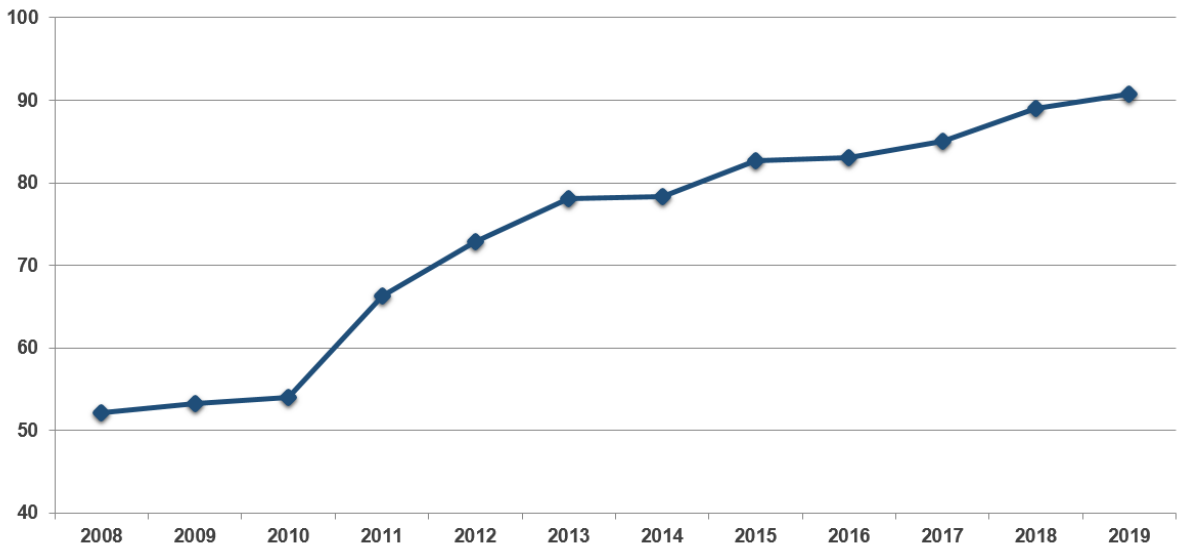
Tabe 6.2. Indicators of Reproductive Health, Georgia

	2015	2016	2017	2018	2019
Coverage with at least 4 antenatal care visits	88.3%	81.2%	85.0%	81.0%	83.0%
Coverage with at least 8 antenatal care visits	-	-	11%	22%	42%
Coverage with at least 1 antenatal care visit	99.5%	99.4%	94.4%	94.3%	95.3%
Timely initiated antenatal care	83.0%	85.0%	89.1%	89.0%	90.7%
Number of deliveries	58830	55940	52660	50468	47571
Term deliveries share	82.1%	81.9%	86.8%	92.0%	91.7%
Normal deliveries	55.0%	52.7%	52.4%	55.0%	58.0%
Pathological deliveries (caesarean sections, forceps, vacuum delivery, all delivery process complication)	45.0%	47.3%	47.6%	44.6%	42.0%
Proportion of births attended by skilled health personnel	99.8%	99.9%	99.9%	99.9%	99.8%

Source: National center for disease control and public health

In 2019, according to the data collected from women consultancy centers, 47571 pregnant women were registered in Georgia. Last years, there was a growth of timely initiation of antenatal care (during the 1st trimester), this could be based on the improved financial accessibility of antenatal services (Figure 6.1).

Figure 6.1 Share of pregnant women (%) initiating antenatal care during the 1st trimester, Georgia



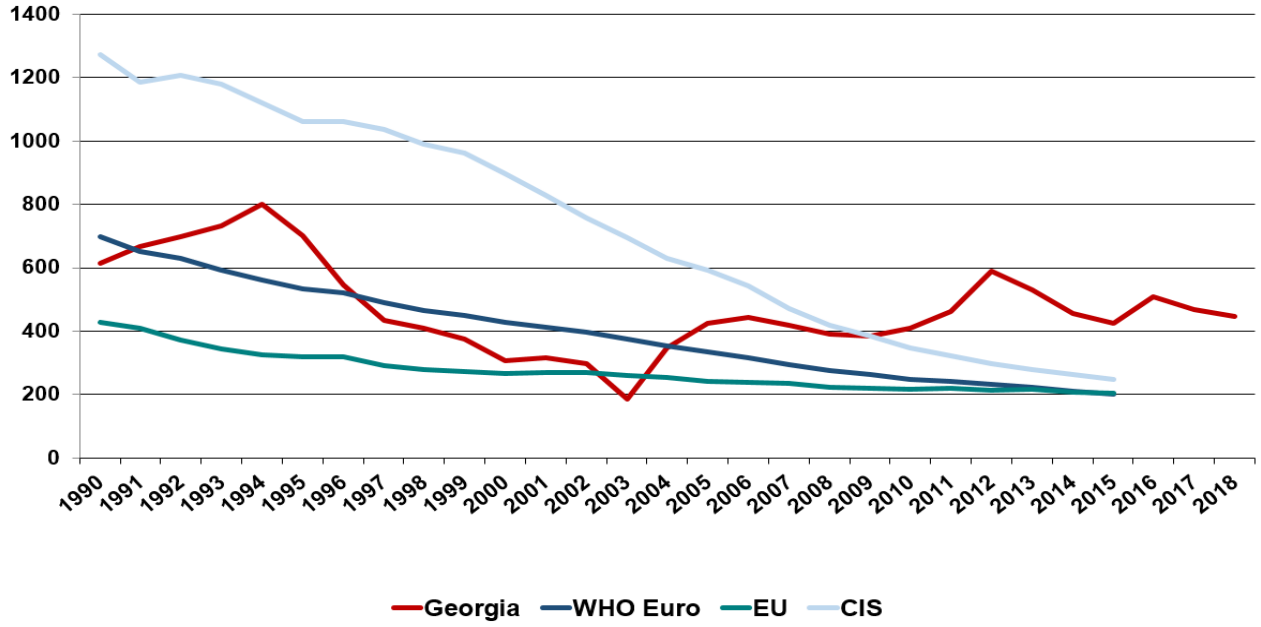
Source: National center for disease control and public health

91.7% of pregnant women were tested for hepatitis C, 91.6% - for syphilis, 91.4% - for HIV, and 91.7% - for hepatitis B.

Abortions

In 2019, 213559 abortions were registered (447.2 per 1000 live births) (Figure 6.2), of which, induced abortions constituted 612%. Compared with the previous year, the total number of abortions decreased by 5% (Figure 6.2).

Figure 6.2 Induced abortion ratio per 1000 live births



Source: National center for disease control and public health; WHO HFA Database

Tabe 6.3 Abortions, Georgia

	Number of live births	Abortions	Abortion ratio per 1000 LB
2008	52442	22062	420.7
2009	56568	24310	429.7
2010	55230	25585	463.2
2011	51565	31185	604.8
2012	49969	39225	785.0
2013	49657	37018	745.5
2014	60635	33464	551.9
2015	59249	32428	547.3
2016	56569	28720	507.7
2017	53293	24937	467.9
2018	51138	22733	444.5
2019	**48296**	**21599**	**447.2**

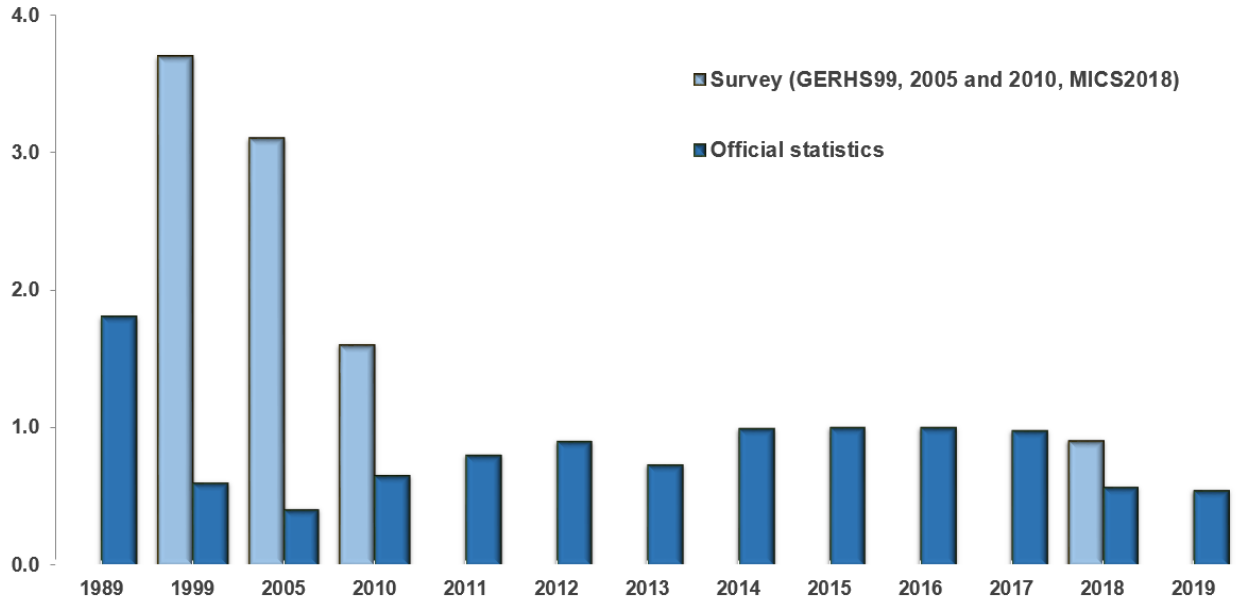
It is noteable, that the share of abortions in women under-20 declined and reached 2.1% of the total number of abortions.

Tabe 6.4 Abortions by age, Georgia, 2019

	Total	Abortions by age groups, Georgia,					
		15-19	20-29	30-34	35-39	40-44	≥ 45
Total number	21559	450	8889	5782	4455	1847	176
Total number per 1000 women	30.4	4.7	85.4	45.9	33.0	14.5	1.4
Including							
Induced	13301	207	5389	3631	2915	1079	80
Miscarriages	8298	243	3500	2151	1540	768	96
Under-12 week of gestation	12881	196	5190	3531	2830	1056	78
Mini (Under-5 weeks)	1938	27	749	530	459	162	11
2-22 weeks of gestation (for medical or social reason)	404	11	193	96	79	23	2
First prégnance aborted	3908	276	2043	711	552	287	39

In Georgia, the value of the total induced abortions rate (TIAR) remained stable in 2014-2017, the decrease in 2018-2019 is likely due to the accounting problems. In 2018, a multiple indicator cluster survey (MICS) was conducted in Georgia, according to the MICS results, TIAR (0.9) is almost 2-folds higher than the official data (0.5) (Figure 6.3). The induced abortions rate is high in the age group of women aged 20-29 and 30-34.

Figure 6.3 Total induced abortion rate (TIAR), Georgia



Source: National center for disease control and public health

In 2019, the most common method of performing induced abortions was medication and its share is higher compare to the previous year.

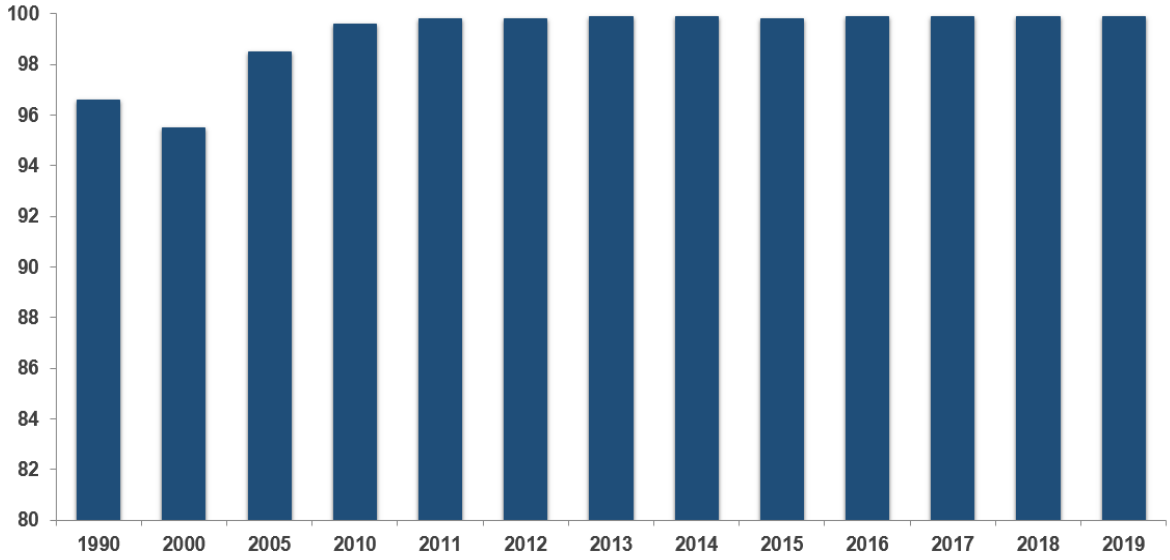
Tabe 6.5 Methods of induced abortions, Georgia

	2012	2013	2014	2015	2016	2017	2018	2019
Total number of induced abortions	39225	37018	33464	32428	28720	24937	22733	21599
Methods of abortion (%):								
D&C	49.2	41.3	37.9	41.2	41.6	22.8	21.5	21.0
Vacuum aspiration	40.6	41.3	39.1	28.3	30.9	40.4	36.4	36.0
Medication induced	10.2	17.4	23.0	30.5	27.5	36.8	38.9	42.0

Delivery

In 2019, there were 47486 deliveries registered. Last years, the share of deliveries in health institutions, reached the maximum value and stayed unchanged (Figure 6.4).

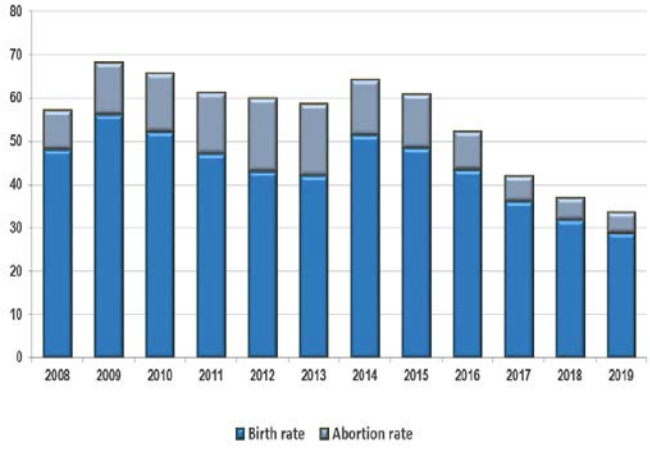
Figure 6.4 Rate of childbirth in health centers, assisted by qualified medical personnel (%), Georgia



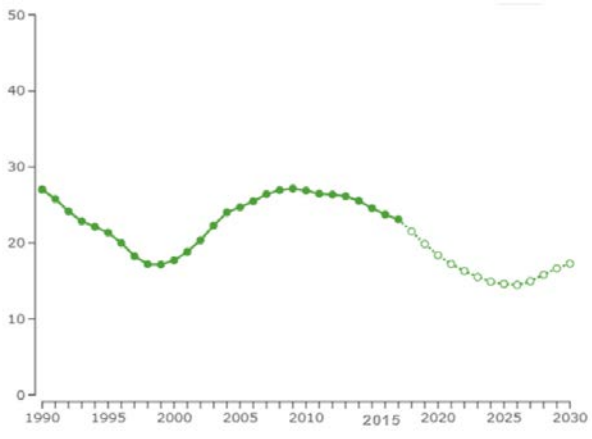
Source: National center for disease control and public health

In 2019, according to the National Statistics Office of Georgia, birth rate to women aged under-20 reduced and reached 29.4 (in 2018 – 32.3) (Figure 6.5).

Figure 6.5 Adolescent pregnancy rate (rate per 1000 women aged 15-19



Source: National center for disease control and public health



Source:http://www.thelancet.com/lancet/visualisations/gbd-SDGs

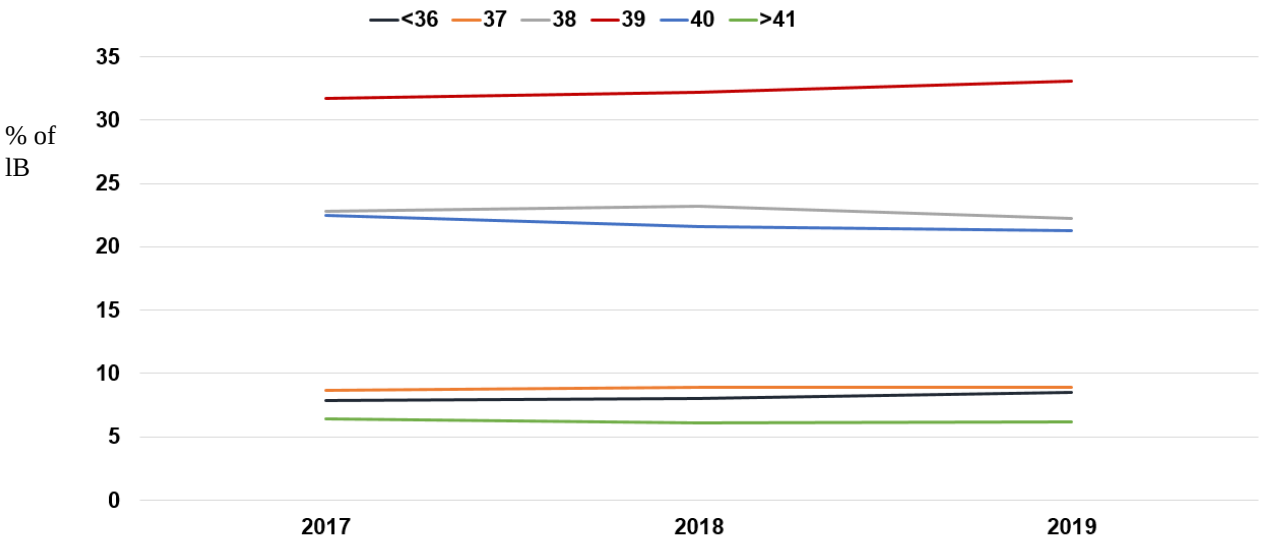
Tabe 6.6 Adolescent pregnancy rate, Georgia

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Adolescent pregnancy rate	48.0	56.1	52.2	47.1	43.0	42.2	51.5	48.4	43.4	36.2	32.3	29.4

Source: National Statistics Office of Georgia

There is a slight increase of preterm deliveries with gestational age <37 weeks: in 2017-2019, their share increased by 0.6%. The trend for growth is maintained at gestation of 39 weeks: in 2017, it was 31.7% and, in 2019, the same - 33.1%. Notable, that timely delivery at the gestational age of 38 weeks is stable, increase is recorded only in 2018 (23.2%), in 2019 the rate returned back to the 22% (level of 2017).

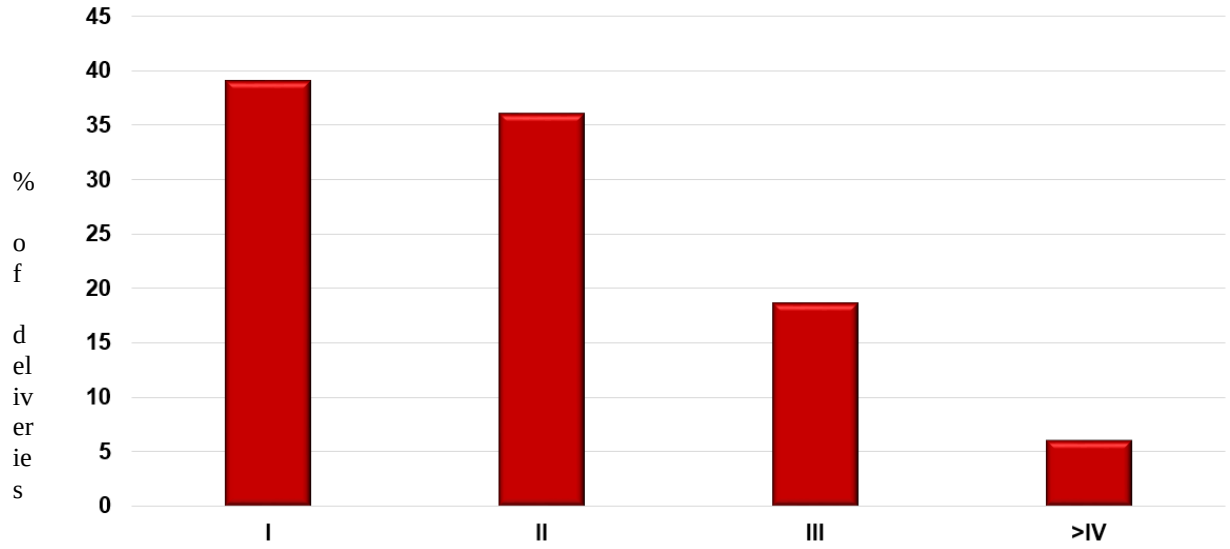
Figure 6.6 Live births according to gestational categories, Georgia



Source: Birth register

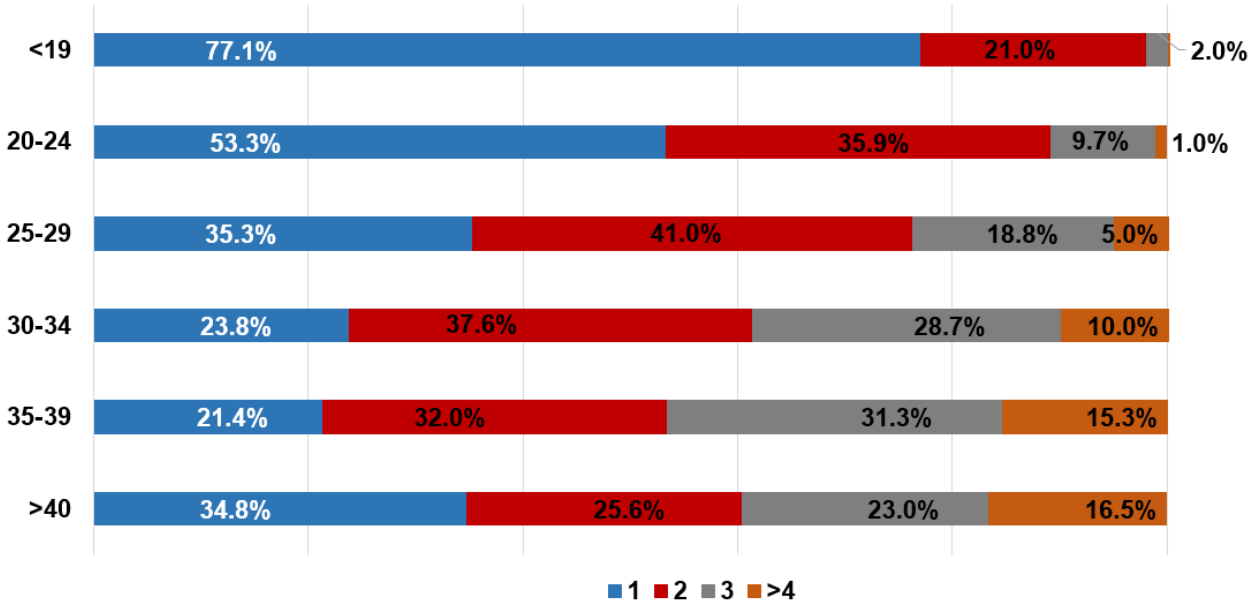
In 2019, prima para women dominate among delivered women and their share accounts to 39.1%; 36.1% of women had the second of childbirth, the third childbirth was registered in 18.7%; the fourth and more - in 6.1%.

Figure 6.7 Distribution of live births by sequence, Georgia, 2019



Source: Birth register

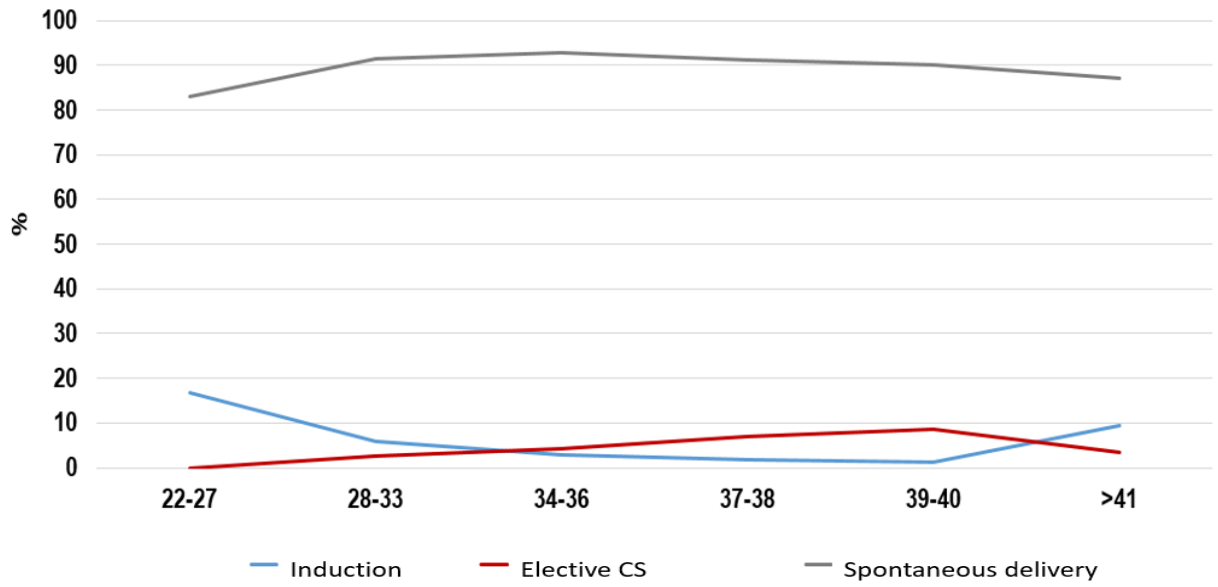
Figure 6.8 Distribution of sequence of live births by age categories, Georgia, 2019



Source: Birth register

In 2019, in 90.4% a spontaneous onset of labor was registered, while a small percentage of the share of elective caesarean section and induced labor was mentioned.

Figure 6.9 Type of the onset of labor and its distribution according to gestational age, Georgia, 2019



Source: Birth register

In 2019, 16.7% of deliveries were complicated by premature rupture of membranes, perineal laceration, and 15.5% - by confirmed or suspected anomalies of pelvic organs. The share of eclampsia and pre-eclampsia was 0.35%. Among post partum complications in the first place are "Other specified diseases and conditions complicating pregnancy, childbirth and the puerperium" - 58.6%; Then come "postpartum hemorrhage" and "placental abruption without bleeding" (12.2% and 9.0%, respectively). 55 pregnant women were referred to other institutions.

Tabe 6.7 Referrals by diagnosis, Georgia, 2019

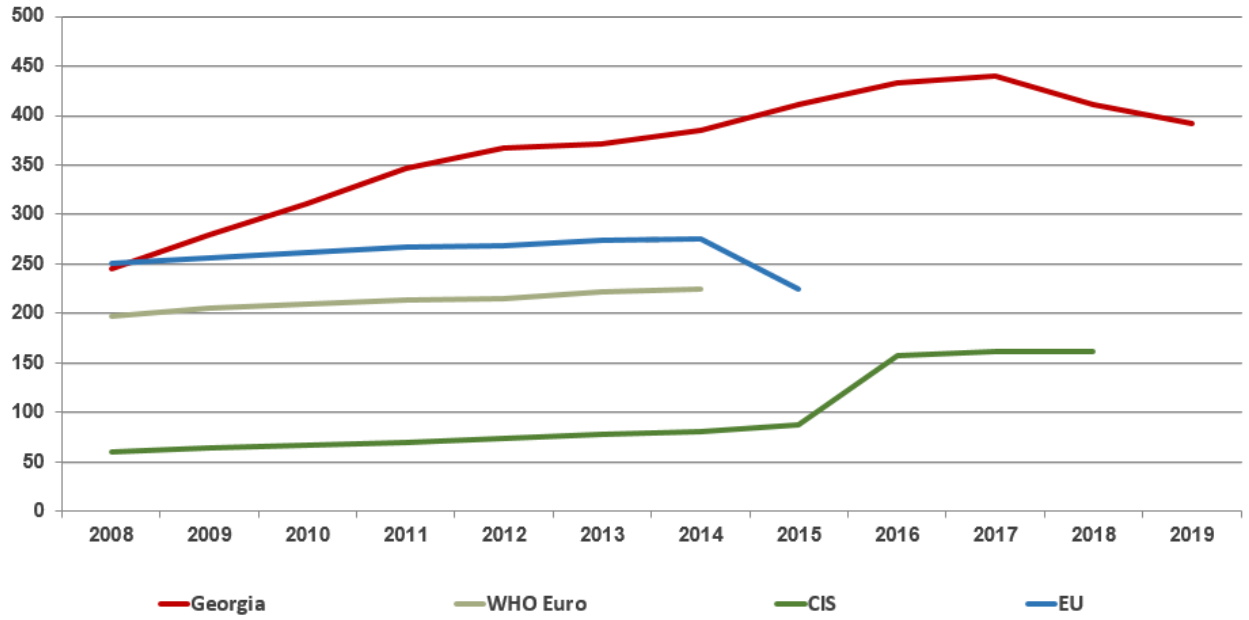
	ICD-10	N	%
Pre-eclampsia	O14	9	16.4
Eclampsia	O15	3	5.5
Placenta praevia	O44	2	3.6
Postpartum haemorrhage	O72	7	12.7
Other complications of labour and delivery, not elsewhere classified	O75	1	1.8
Delivery by emergency caesarean section	O82	1	1.8
Puerperal sepsis	O85	4	7.3
Other puerperal infections	O86	1	1.8
Venous complications and haemorrhoids in the puerperium	O87	1	1.8
Complications of the puerperium, not elsewhere classified	O90	4	7.3
Maternal infectious and parasitic diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium	O98	4	7.3
Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium	O99	18	32.7
Total		**55**	**100**

Source: Birth register

Caesarean sections

Since 2000, the share of caesarean section deliveries has increased 4.3-fold and in 2017, this share reached 44.7%. in 2019, the share caesarean section deliveries reduced and equaled to 39.9% (Figure 6.10).

Figure 6.10 Caesarean sections (ratio per 1000 live births)



Source: National center for disease control and public health, WHO HFA Database

Tabe 6.8 Caesarean sections structure, Georgia

	2018			2019		
	Total	**Rate per 1000 LB**	**% of the total**	**Total**	**Rate per 1000 LB**	**% of the total**
Total	**21044**	**411.5**	**100%**	**18936**	**392.1**	**100%**
Including						
Elective caesarean section	6455	126.2	30.7	6503	134.6	34.3
Urgent caesarean sections	14589	285.3	69.3	12433	257.4	65.7

In 2019, previous caesarean section is the most common indication for caesarean section, such CSs account for 42.4% of the number of caesarean sections. Cesarean section at request of the mother is high - 16.1%. Caesarean sections at the request is mostly observed at gestational age less than 37 weeks.

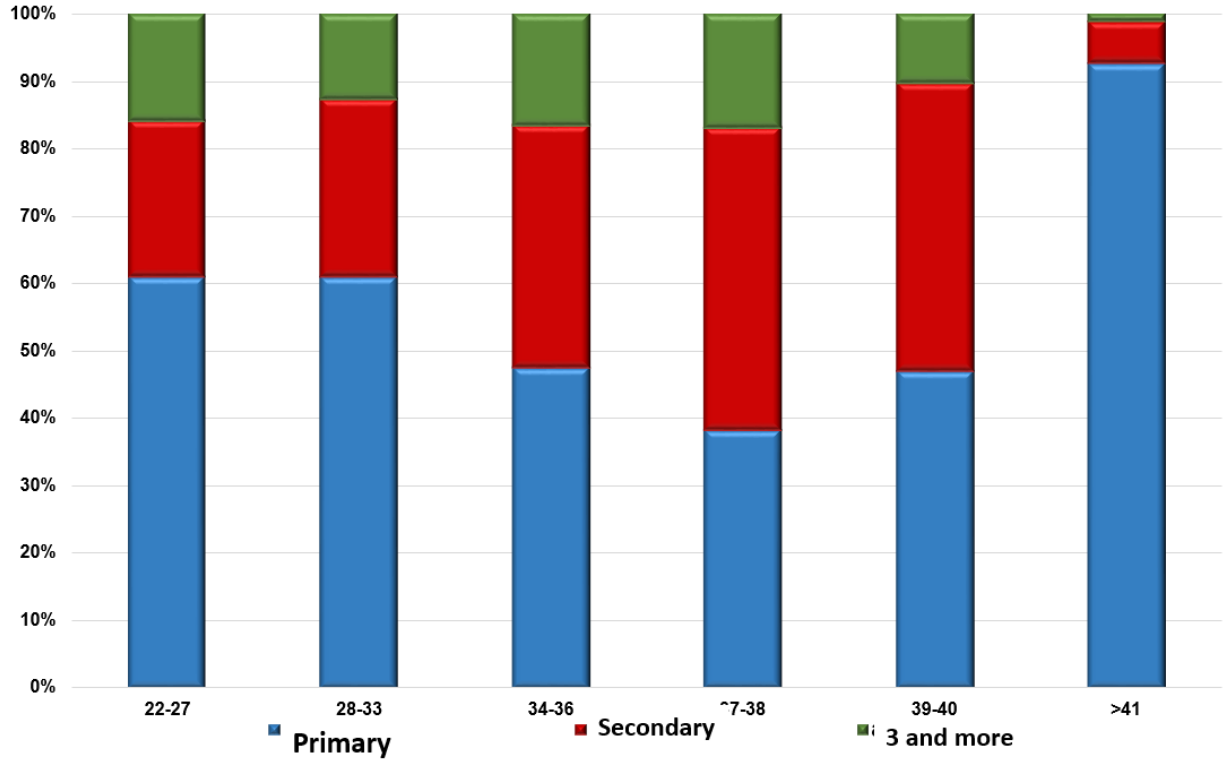
Tabe 6.10 Caesarean sections by gestational age, Georgia, 2019

	22027		28033		34036		37038		39040		>41		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Failed vacuum extraction / forceps	0	0	0	0	0	0	1	100	0	0	0	0	1	0.0
Eclampsia	2	4.8	9	21.4	7	16.7	9	21.4	15	35.7	0	0	42	0.2
Rupture of the uterus	0	0	2	2.9	6	8.8	28	41.24	31	45.6	1	1.5	68	0.4
Umbilical cord rupture	1	0.9	6	5.5	15	13.6	32	29.1	49	44.5	7	6.4	110	0.6
Placenta previa	7	4.2	27	16.2	44	26.3	57	34.1	30	18	2	1.2	167	0.9
Macrosomia	0	0	0	0	3	1.5	38	19	140	70	19	9.5	200	1.1
Failed induction	0	0	2	0.7	10	3.4	71	23.9	154	51.9	60	20.2	297	1.6
Premature removal of a normally attached placenta	24	6.3	76	19.9	70	18.3	98	25.7	105	27.5	9	2.4	382	2.0
Prolonged delivery / delivery without progress	1	0.2	1	0.2	16	3.7	91	21.3	247	57.8	71	16.6	427	2.3
Expected asphyxia	1	0.2	16	3.7	52	12	145	33.6	175	40.5	43	10	432	2.3
Transverse location of the foetus	2	0.4	20	3.6	50	9.1	235	42.6	232	42.1	12	2.2	551	2.9
Pelvic presence	12	0.6	88	4.5	221	11.2	783	39.8	809	41.1	55	2.8	1968	10.4
At the request of the mother	0	0	15	0.5	126	4.1	1042	34.2	1701	55.8	167	5.5	3051	16.1
Other medical indications	28	0.9	204	6.4	317	9.9	1089	33.9	1443	44.9	134	4.2	3215	17.0
Transferred caesarean section	17	0.2	140	1.7	578	7.2	3671	45.7	3591	44.7	28	0.3	8025	42.4
Total	**95**	**0.5**	**606**	**3.2**	**1515**	**8**	**7390**	**39**	**8722**	**46.1**	**608**	**3.2**	**18936**	**100**

Source: Birth register

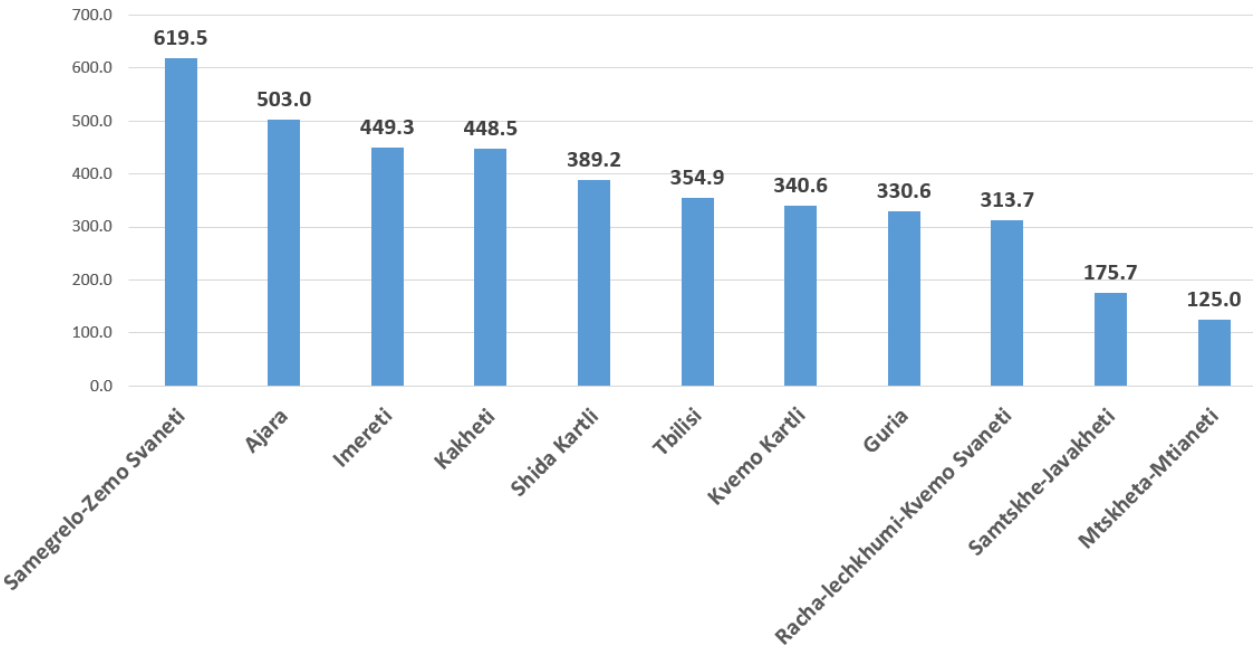
In 2019, the share of primary cesarean section is 72.1% of the total number and 61% in 22-27 and 28-33 weeks of gestational age. The highest proportion of the primary cesarean section comes to the gestational age of> 41 weeks.

Figure 6.11 Caesarean section frequency by gestational age, Georgia, 2019



Source: Birth register

Figure 6.12 Caesarean section rate per 1000 live births by regions, Georgia, 2019

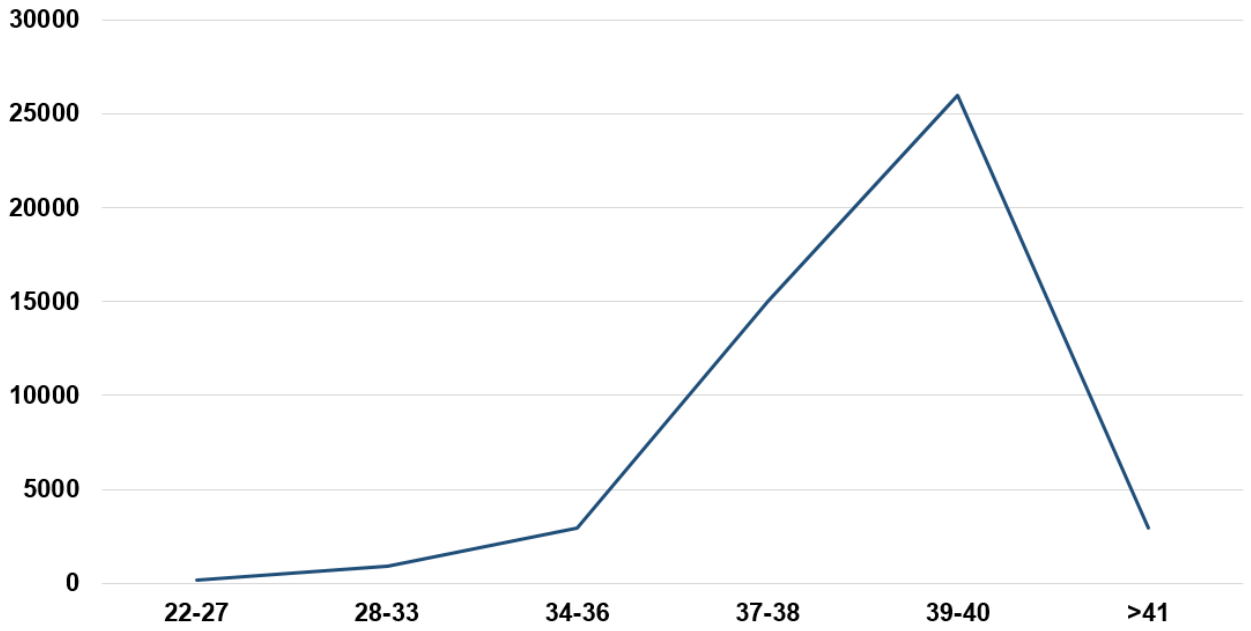


Source: Birth register

Live births

In 2019, according to the National Statistics Office, in Georgia, 48296 live births were registered.

Figure 6.13 Live births by gestational age, Georgia, 2019



Source: Birth register

According to healthcare providers' data, 6.4% of live born babies were underweighted, and 7.7% of babies weighted more than 4000 gr.

Tabe 6.11 Live births according to the birth weight , Georgia, 2019

	<499	500-1499	1500-2499	2500-3499	3500-4499	4500-5499	>5500	ჯამი
Number of live births	10	471	2602	27740	16480	463	2	47768
% from the total number of live births	0.02	1.0	5.4	58.1	34.5	1.0	0.004	100.0

Table 6.12 Breastfeeding, data collected from maternity hospitals, Georgia

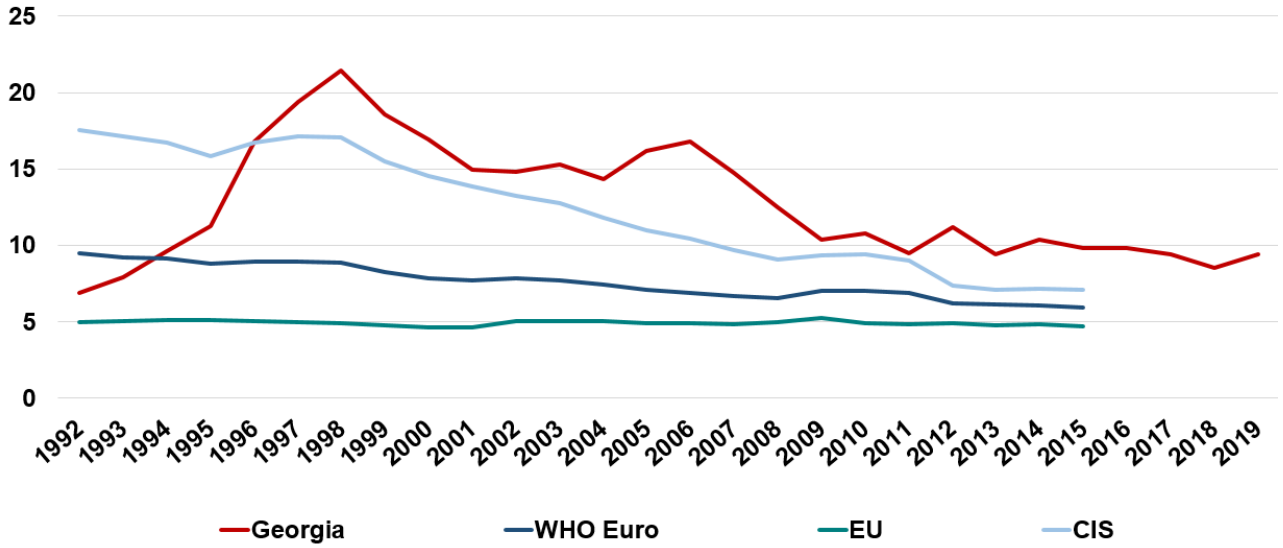
	2018		2019	
	Total number of breastfed infants	% of total number of live births	Total number of breastfed infants	% of total number of live births
Breastfeeding initiated during the first hour after birth	41244	81.3	39665	83.0
Total number of the breastfed newborns	46972	92.6	42454	88.9

Stillbirths

In Georgia, during last decade, stillbirth rate it significantly decreased, although, it stays high, compared to developed countries, and studying causes of stillbirths remains a challenge.

In 2019, stillbirths number accounted to 456 cases, stillbirth rate was 9.4 per 1000 births (according to the last available data, stillbirth rate was 9.3 in the CIS countries; and 5.3 in the EU) (Figure 6.14).

Figure 6.14 Stillbirth rate per 1000 births



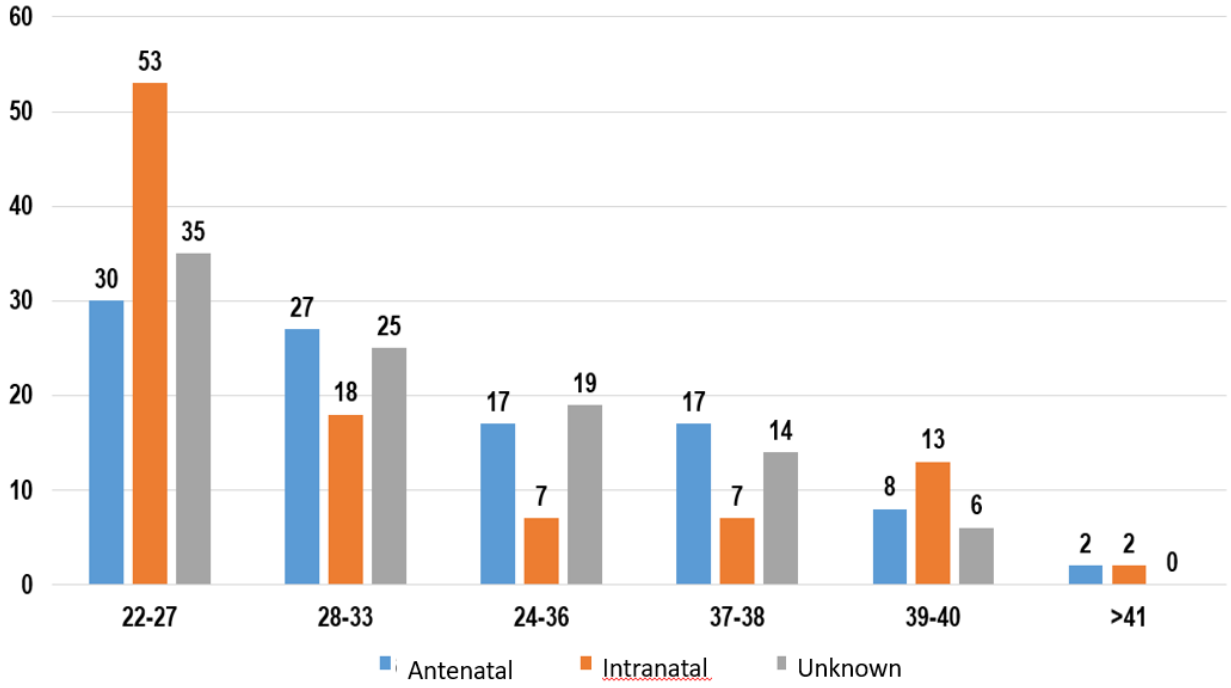
Source: WHO HFA Database, National center for disease control and public health

In 2019, cases of stillbirth were analysed using the „Electronic Module for Pregnant and Newborn Health Surveillance". The results show that 73% of stillbirths happened during the antenatal period, 13.2% - during the intra-natal period. Although, in 13.8% of all cases determination of the time of the foetal death was impossible using the available medical records.

29.7% of antenatal stillbirths, happened on 22-27 week of gestation, 26.7% - on 28-33 week, 17.4% and 24.6% - on 34-36 and 37-41 weeks respectively.

53.3% of intra-natal stillbirths (13.2% of total) occurred on 22-27 week of gestation, 18.3% - on 28-33 week, and about 22% - on 34-36 week (Figure 6.15).

Figure 6.15 Stillbirths by gestational age (in %), Georgia, 2019



Source: National center for disease control and public health

Tabe 6.13 Stillbirths by weight at births, Georgia, 2019

	<499	500 - 999	1000 - 1499	1500-2499	2500-3999	> 4000	სულ
Number of stillbirths	**62**	**161**	**111**	**87**	**29**	**6**	**456**
% from the total number of stillbirths	13.6	35.3	24.3	19.1	6.4	1.3	100.0

Maternal mortality

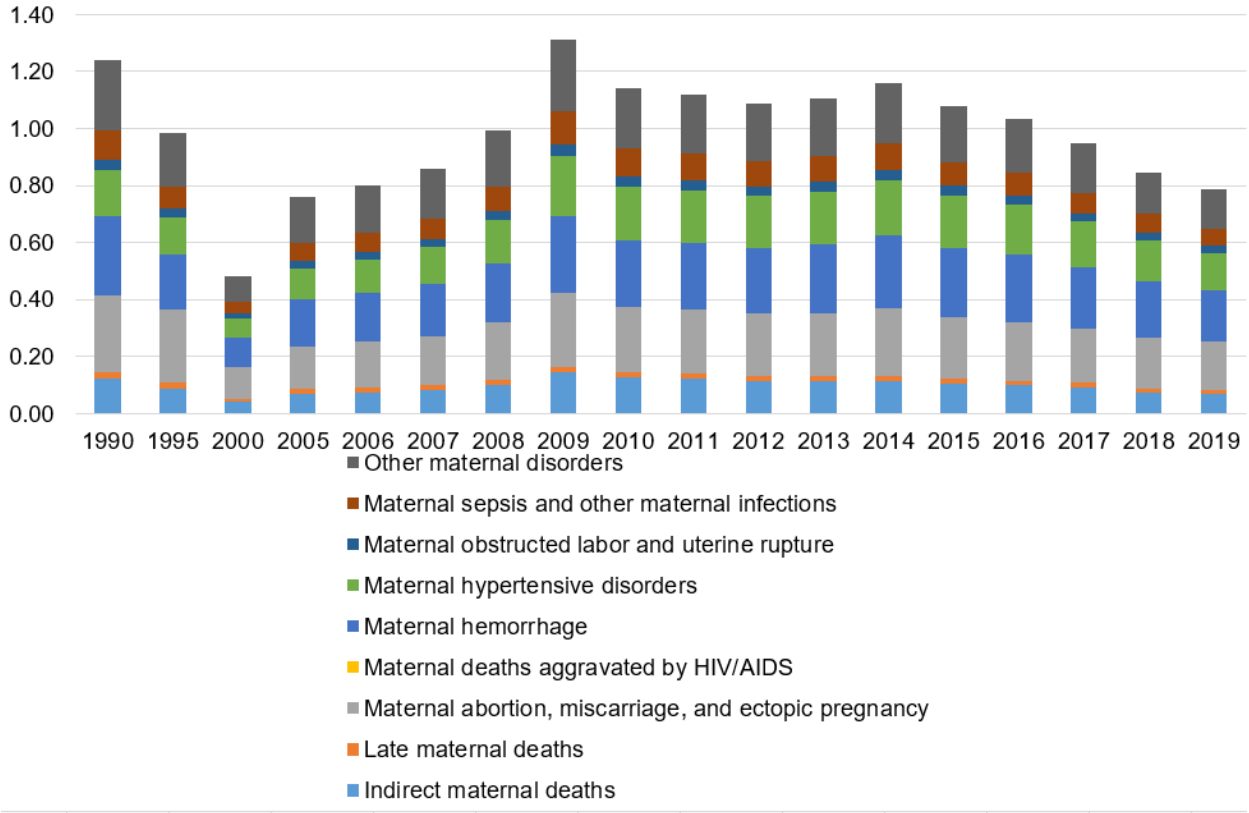
In the transition period from the MDG framework to Sustainable Development Goals (SDG), a complex assessment of maternal mortality is necessary to identify successful areas and address existing problems.

The United Nations Sustainable Development Goals aim on the improvement of maternal health and well-being by 2030. According to the SDG3.1 the target maternal mortality rate is less than 70 per 100,000 live births. According to international estimates, in Georgia, by 2030, he maternal mortality rate is expected to reach 28.8 (19.0-43.0) deaths per 100,000 live births.

In 2019, there were 15 maternal deaths registered (due to direct and indirect causes), including 14 early deaths (during pregnancy or within 42 days from pregnancy termination). Maternal mortality ratio is 28.9 per 100 000 live births.

The underlying causes of death are as following: thromboembolism – 26% (4 cases, including 1 late case), eclampsy / preeclampsy – 20% (3 cases), preterm placental abruptio – 7% (1 case), rupture of uterus during labor – 7% (1 case), respiratory system diseases,complicating pregnancy, delivery and postpartum – 7% (1 case),mental disorders and nervious system diseases – 7% (1 case).

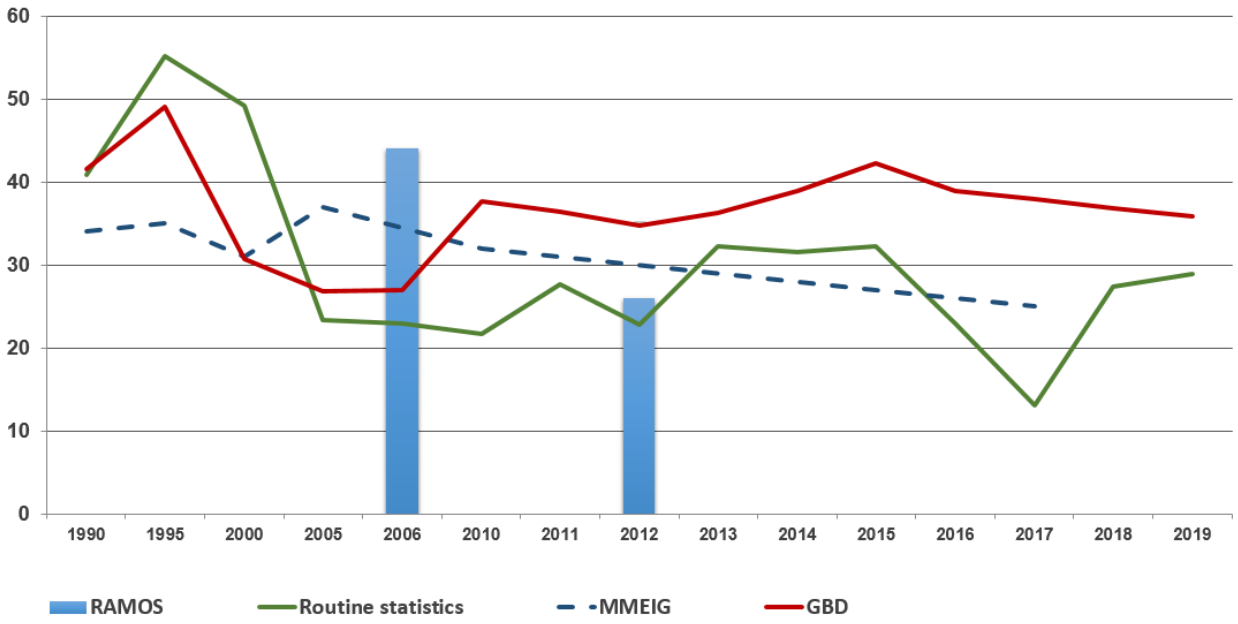
Figure 6.16 Maternal mortality by underlying cause of death of death, Georgia



Source: https://vizhub.healthdata.org/gbd-foresight/

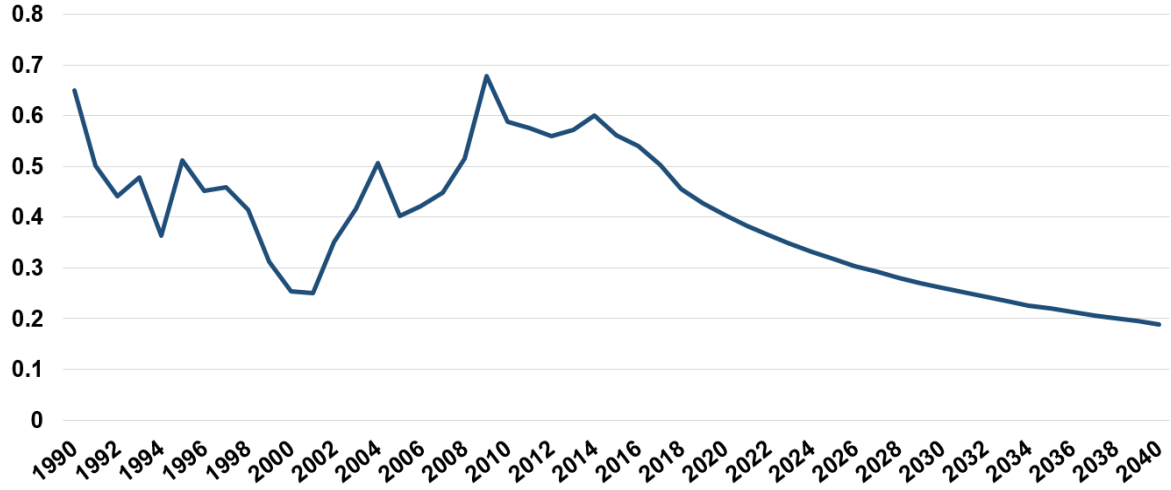
Different international organizations and agencies are producing maternal mortality estimates for different countries, e.g., the UN Maternal Mortality Estimation Interagency Group (MMEIG) and Institute for Health Metrics and Evaluation (IHME) (Figure 6.16, 6.17, 6.18, and 6.19).

Figure 6.17 Maternal mortality by sources of information, Georgia



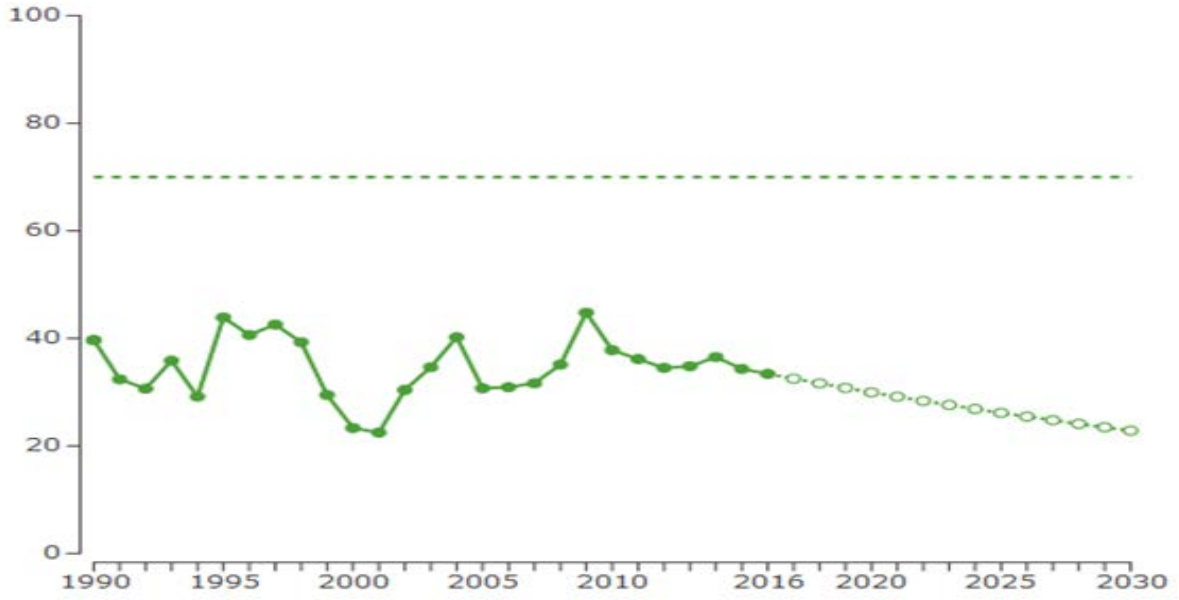
Source: National center for disease control and public health, National Statistics Office of Georgia

Figure 6.18 Maternal mortality projection, age-specific rate per 100000 women of reproductive age, Georgia



Source: https://vizhub.healthdata.org/gbd-foresight/

Figure 6.19 Maternal mortality rate per 100000 live births, Georgia



Source: http://www.thelancet.com/lancet/visualisations/gbd-SDGs

The UN "State of World Population 2020" provides some of Georgia's reproductive health indicators:

Reproductive health	Maternal mortality (per 100 000 live births), 2017		25
	Maternal mortality, confidence interval (UI 80%), 2015 assessment	Minimum	21
		Maximum	29
	Proportion of births attended by skilled health personnel, 2014-2019		99
	Adolescent pregnancy rate per 1000 women aged 15-19, 2003-2018		32
	Child marriages (under-18), %, 2005 - 2019		14
	Contraception prevalence rate in women aged 15-49, 2020	Any method	46
		Modern method	32
	Unsatisfied demand for family planning in women of reproductive age (15-49), 2020		13

Source: https://www.unfpa.org/sites/default/files/pub-pdf/UNFPA_PUB_2020_EN_State_of_World_Population.pdf

Child morbidity

Tabe 6.14 Neonatal morbidity (according to "Birth registry", Georgia, 2019

	Number of cases	Incidence rate per 1000 LB
Total	**6422**	**134.4**
Foetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery	3	0.1
Disorders related to length of gestation and foetal growth	2554	53.5
Birth trauma	115	2.4
Respiratory and cardiovascular disorders specific to the perinatal period	1487	31.1
Infections specific to the perinatal period	1046	21.9
Haemorrhagic and haematological disorders of foetus and newborn	508	10.6
Transitory endocrine and metabolic disorders specific to foetus and newborn	17	0.4
Digestive system disorders of foetus and newborn	13	0.3
Conditions involving the integument and temperature regulation of foetus and newborn	23	0.5
Other disorders originating in the perinatal period	294	6.2
Congenital malformations of the nervous system	16	0.3
Congenital malformations of eye, ear, face and neck	4	0.1
Congenital malformations of the circulatory system	87	1.8
Congenital malformations of the respiratory system	2	0.0
Cleft lip and cleft palate		0.0
Other congenital malformations of the digestive system	44	0.9
Congenital malformations of genital organs	93	1.9
Congenital malformations of the urinary system	7	0.1
Congenital malformations and deformations of the musculoskeletal system	85	1.8
Other congenital malformations	16	0.3
Chromosomal abnormalities, not elsewhere classified	8	0.2

In 2019, in Georgia, 57601 new cases of diseases were registered in infants (in 2018 – 69615), incidence rate per 1000 infants – 1162.1 (in 2018 – 1336.2). A share of respiratory system diseases in infant morbidity was 57.7% (in 2018 – 61.1%), a share of infectious and parasitic diseases – 7.3%.

Tabe 6.15 Morbidity of infants (most common causes), 2019

	Incidence per 1000 infants
Diseases of the respiratory system	740.5
Infectious and parasitic diseases	85.4
Diseasesof the ear and mastoid process	61.0
Diseases of skin and subcutaneous tissue	44.0
Diseases of the digestive system	36.9
Diseases of the nervous system	33.2

In 2019, hospital services were provided to 26534 aged infants (in 2018 - 24546), a share of the respiratory system diseases of the all cases of hospitalization was 42.7% (in 2018 –

41%), a share of certain conditions originating in the perinatal period – 26.6% (in 2018 – 27.9%), a share of infectious and parasitic diseases – 16.1% (in 2018 – 14.8%).

Table 6.16 Hospital discharges of infants, Georgia, 2019

	Number of cases	Case fatality rate (%)
Total	**26534**	**1.2**
Including:		
Certain infectious and parasitic diseases	4302	0.05
Neoplasms	84	1.2
Diseases of blood and blood-forming organs	211	0.5
Endocrine, nutritional and metabolic diseases	12	0.0
Mental and behavioral disorders	169	3.6
Diseases of the nervous system	14	0.0
Diseases of the eye and adnexa	31	0.0
Diseases of the ear and mastoid process	27	18.5
Diseases of the circulatory system	11321	0.1
Diseases of the respiratory system	342	1.5
Diseases of the digestive system	67	0.0
Diseases of the skin and subcutaneous tissue	12	0.0
Diseases of the musculoskeletal system and connective tissue	505	0.2
Diseases of the genitourinary system	7050	3.4
Certain conditions originating in the perinatal period	763	5.1
Congenital malformations, deformations and chromosomal abnormalities	1158	0.7
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	432	0.0
Injury, poisoning and certain other consequences of external causes	34	0.0

In 2019, in Georgia, there were registered 219908 new cases of diseases in children aged under-5 (in 2018 – 261434), incidence per 1000 children – 804.9 (in 2018 – 937.4).

In the structure of incidence in children aged under-5, a share of the respiratory system diseases was 65.2% (in 2018 - 58.6%), a share of infectious and parasitic diseases –10.3% (in 2017 - 11.4%).

Tabe 6.17 Incidence of diseases in children aged under-5 (most common causes), Georgia, 2019

	Incidence per 1000 children aged under-5
Diseases of the respiratory system	524.9
Infectious and parasitic diseases	83.3
Diseasesof the ear and mastoid process	35.7
Diseases of skin and subcutaneous tissue	28.5
Diseases of eye and adnexa	25.9
Injury, poisoning and certain other consequencences of external causes	24.9

During the reporting period, hospital servisies were provided to 71273 children aged under-5 (in 2018 – 62206), of which the respiratory system diseases were registered in 51.3% (in 2018 – 48.7%); infectious and parasitic diseases – 18.6% (in 2018 – 19.1%), injury, poisoning and certain other consequences of external causes – 8.9%, certain conditions originating in the perinatal period – in 11% (in 2018 – 26.7%).

Table 6.18 Hospital discharges, children aged under-5, Georgia, 2019

	Number of hospital discharges	Case fatality rate (%)
Total	**71273**	**0.5**
Including:		
Certain infectious and parasitic diseases	13271	0.04
Neoplasms	546	1.5
Diseases of blood and blood-forming organs	206	0.0
Endocrine, nutritional and metabolic diseases	93	1.1
Mental and behavioral disorders	2	0.0
Diseases of the nervous system	473	1.9
Diseases of the eye and adnexa	126	0.8
Diseases of the ear and mastoid process	165	0.0
Diseases of the circulatory system	52	13.5
Diseases of the respiratory system	36586	0.1
Diseases of the digestive system	1181	0.5
Diseases of the skin and subcutaneous tissue	223	0.0
Diseases of the musculoskeletal system and connective tissue	168	0.0
Diseases of the genitourinary system	1552	0.1
Certain conditions originating in the perinatal period	7131	3.3
Congenital malformations, deformations and chromosomal abnormalities	1561	2.6
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	4990	0.2
Injury, poisoning and certain other consequences of external causes	2809	0.1
Factors, influencing health status	138	0.7

According to 2019 data, collected from out-patient facilities, 474501 new cases of all diseases were registered in children aged under-15 (in 2018 - 525563), incidence per 1000 children - 62698.3 (in 2018 - 72609.5).

The highest incidence rate was registered in the class of the respiratory system diseases – 34819.1 (in 2018 – 38517.6), in this class high incidence was registered in the group of acute upper respiratory infectious (rate – 25197.5), pneumonia (1095.7), and other acute lower respiratory infectious (4891.9).

Tabe 6.19 Incidence of diseases in children aged under-15, Georgia, (most common causes), 2019

Cause of incidence	Incidence per 100000
Diseases of the respiratory system	34819.1
Diseases of the digestive system	Diseases of the digestive system
Certain infectious and parasitic diseases	5882.8
Injury, poisoning and certain other consequences of external causes	3687.5
Diseases of the ear and mastoid process	2299.2
Diseases of the skin and subcutaneous tissue	2200.7
Diseases of the eye and adnexa	2021.4

During the reporting period, hospital servisies were provided to 113170 children aged under-15 (in 2018 – 98285). Hospital discharge rate per 100000 children was high in the classes of the respiratory system diseases, infectious and parasitic diseases, conditions, originating in the perinatal period, and injury, poisoning and certain other cosequencies of external causes.

Table 6.20 Hospital discharges by the ICD10 chapters, children aged under-15, Georgia, 2019

	Number of hospital discharges	Case fatality rate (%)
Total	**113170**	**0.4**
Including:		
Certain infectious and parasitic diseases	18858	0.04
Neoplasms	1050	1.2
Diseases of blood and blood-forming organs	572	0.3
Endocrine, nutritional and metabolic diseases	627	0.3
Mental and behavioral disorders	112	0.0
Diseases of the nervous system	890	1.5
Diseases of the eye and adnexa	277	0.0
Diseases of the ear and mastoid process	490	0.0
Diseases of the circulatory system	150	6.0
Diseases of the respiratory system	57314	0.1
Diseases of the digestive system	4457	0.2
Diseases of the skin and subcutaneous tissue	473	0.0
Diseases of the musculoskeletal system and connective tissue	655	0.0
Diseases of the genitourinary system	2701	0.1
Pregnancy, childbirth and the puerperium	15	0.0
Certain conditions originating in the perinatal period	7131	3.3
Congenital malformations, deformations and chromosomal abnormalities	2289	1.8
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	7595	0.2
Injury, poisoning and certain other consequences of external causes	6916	0.1
Factors influencing health status and contact with health services	598	0.2

Child mortality

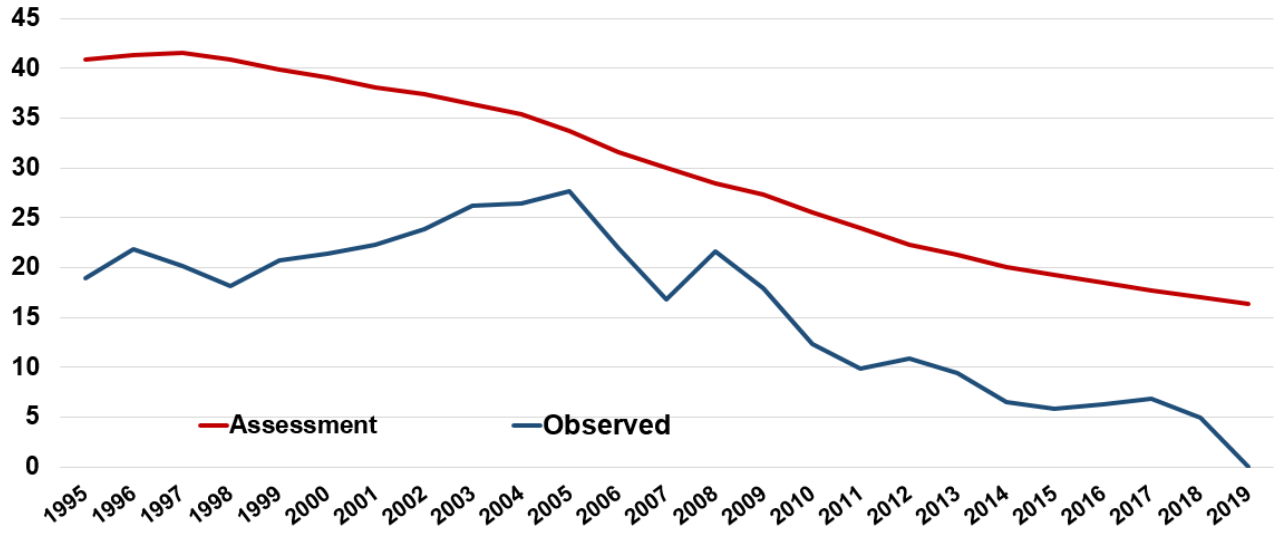
According to the World Health Organisation global data, the share of neonatal death in under-5 mortality equalled 45%. In Georgia, in 2019, a share of neonatal death in under-5 mortality was 55.3% (in 2017 – 58.9; 2018 – 50.9%) (Figure 6.20).

Tabe 6.21 Neonatal and perinatal deaths, Georgia

Year	0-28 days per 1000 live birth	0-6 days per 1000 live birth	7-28 days per 1000 live birth	Perinatal mortality per 1000 birth
2010	9.6	6.6	3.0	17.4
2011	8.5	6.1	2.4	15.6
2012	9.2	6.6	2.7	17.7
2013	8.4	6.7	1.7	16.1
2014	7.2	5.1	2.1	15.5
2015	5.8	3.8	2.1	13.6
2016	6.3	4.1	2.2	13.8
2017	6.8	4.5	2.3	13.8
2018	5.0	3.2	1.7	11.7
2019	**5.2**	**2.8**	**2.4**	**12.1**

Source: National Statistics Office of Georgia

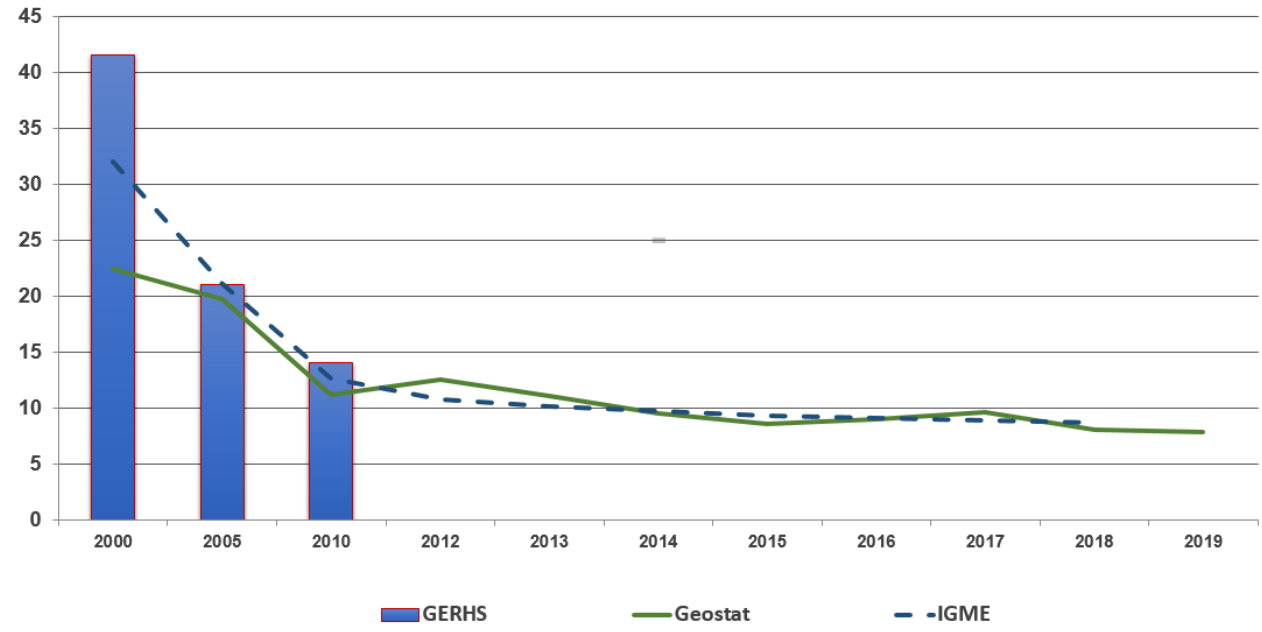
Figure 6.20 Neonatal mortality rate per 1000 live births, Georgia



Source: https://vizhub.healthdata.org/gbd-foresight/; National Statistics Office of Georgia

According to the WHO global data, almost 75% of under-5 deaths occurred in infants. In 2018, in Georgia, this share, according to the NCDC and the NSO data, constituted 83.4% (in 2017 – 83.9%). According to all sources, the infant mortality is declining (Figure 6.21).

Figure 6.21 Infant mortality rate per 1000 live births, Georgia



Source: National Statistics Office of Georgia

Tabe 6.22 Infant mortality rate per 1000 LB, Georgia

Source	2000	2005	2010	2012	2013	2014	2015	2016	2017	2018	2019
NSO	27.3	29.5	16.9	14.6	13.2	9.5	8.6	9.0	9.6	8.1	7.9
IGME	30.9	21.7	14.6	12.6	11.7	11.3	10.6	10.5	10	8.7	
GERHS	41.6	21.1	14.1	-	-	-	-	-	-	-	

In 2019, a share of conditions originating in the perinatal period in the infant mortality structure was 69.5% (in 2018 – 68.5%).

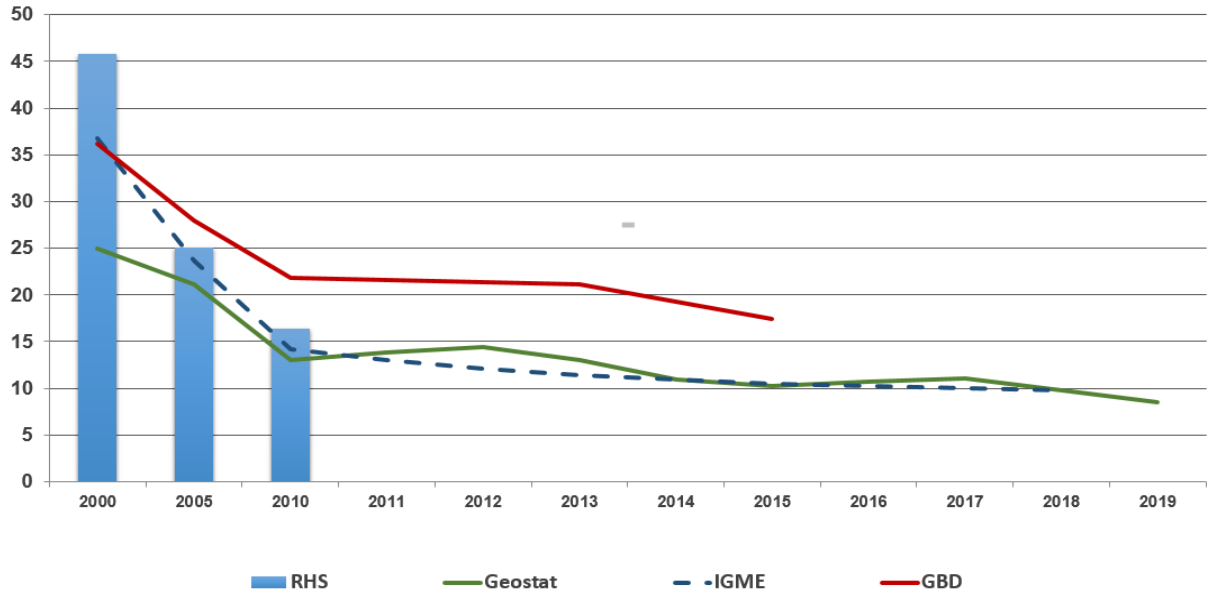
In Georgia, according to the latest available data (WHO HFA DB), despite of the declining trend, the under-5 child mortality, still is higher than in the European countries, although, it is in the middle position among the countries of the former Soviet Union.

According all sources, such as official statistics, international experts estimates (the UN Inter-agency Group for Child Mortality Estimation - IGME), and large-scale studies (Georgian Reproductive Health Survey GERHS), Global Burden of Disease Study – GBD, Georgia, has reached the Millennium Development Goal in reducing the under five mortality rate. It is important that GBDs and IGME assessments for the global and regional levels almost matched, the matching level - 98% (Figure 6.22).

Tabe 6.23 Under-5 mortality rate per 1000 live births, Georgia

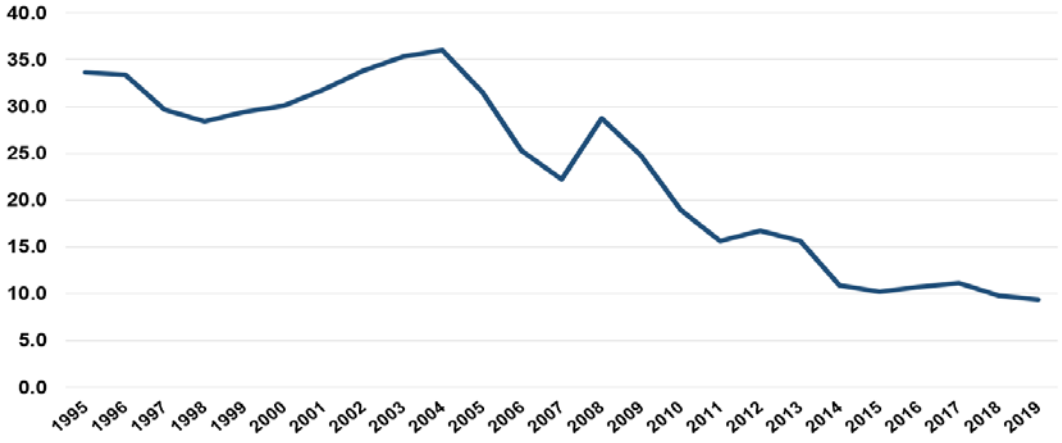
Source	2000	2005	2010	2012	2013	2014	2015	2016	2017	2018	2019
NSO	30.1	31.5	18.9	16.7	15.6	10.9	10.2	10.7	11.1	9.8	9.4
IGME	35.3	24.5	16.4	14.1	13.1	12.6	11.9	Female -10 Male - 12	--	9.8	
GBD	36.2	28.0	21.8	-	-	-	17.4	11.7	--	--	-
RHS	45.2	25.1	16.4	-	-	-	-	-	--	--	-

Figure 6.22 Under-5 mortality rate per 1000 live births, Georgia



Source: National Statistics Office of Georgia

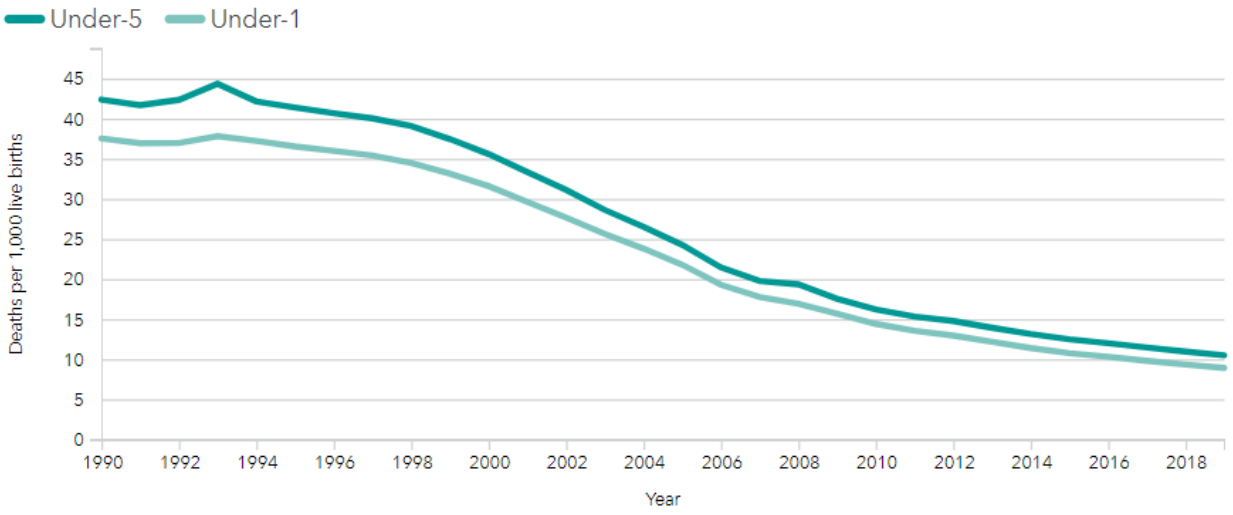
Figure 6.23 Under-5 mortality rate per 1000 live births, Georgia



Source: National Statistics Office of Georgia

The Figure 6.24 demonstrates data of the Institute for Health Metrics and Evaluation (IHME) at the University of Washington on infant and under-5 mortality in Georgia.

Figure 6.24 Infant and under-5 mortality rate per 1000 live births, Georgia



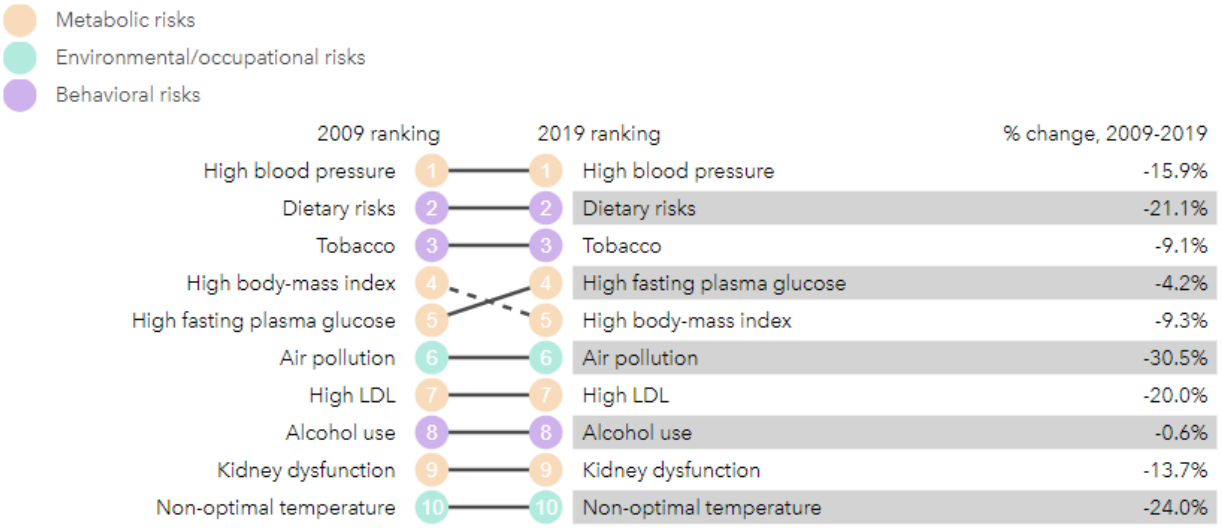
	1990	2019
Under-5	42.4	10.5
Under-1	37.5	8.9

Chapter 7.

Risk Factors

The Institute for Health Metrics and Evaluation (IHME) at the University of Washington), which conducts independent, accurate, and comparable studies of major health problems around the world, studies the impact of risk factors on health - Disability-Adjusted Life Years (DALY). It is important to study the change in the severity of exposure to risk factors over a periods of time. The latest published data are presented in Figure 7.1.

Figure 7.1 Top 10 risks contributing to total number of DALYs in 2019 and percent change 2009–2019, all ages combined, Georgia



Health Behavior in School-Aged Children (HBSC) Study in Georgia, 2018

HBSC is a cross-sectional research study conducted in collaboration with the World Health Organization (WHO) Regional Office for Europe. The HBSC international survey runs on an academic 4-year cycle and in 2013/2014 there were 44 participating countries and regions. The overall goal of the study is to improve health and welfare of young people through revealing a wide range of factors affecting their health and development, including health, education, social context, family and personal determinants. HBSC study in Georgia is the only source of information on adolescent health in the country, providing national, international and local data to stakeholders. HBSC provides information on wide-ranging aspects of young people's health and well-being. National wide surveys conducted first time in 2018 by the National Center for Disease Control and Public Health of Georgia.

The national wide HBSC study primarily was done in Georgia in spring of 2018 and the aim of the study was to obtain new evidence and increase the level of awareness in relation to health behaviour, health and lifestyle of adolescents in their social context.

The study population was young students of public and private schools, aged 11, 13 and 15 years. These age groups were selected due to important stages of development occurring these years. The school-based survey is administered at a national level. The representative sample of pupils from each age group is involved in the study. Self-administrated questionnaires are being completed in the classroom during the spring semester.

Most young people reported high life satisfaction (76%), 40% of young people report their health as 'excellent' and a further 43% describe their health as 'good'. Prevalence changes with age for sex. Life satisfaction decreases with age for girls. Life satisfaction varies with place of residence. The highest score was observed in Tbilisi. "Recklessness" at least one day a week, said 15% of boys and 24% of girls. The prevalence of depression among 11-,

13-, and 15-year-olds is almost twice as high in the capital (4.2%) than in the countryside (2.2%), while the prevalence of depression in regional centers and cities was 3%.

Boys, compared to girls were more likely to evaluate their own health positively. Girls, in almost all age groups, complained for poor health more often, with the most significant gender difference observed in the 15-year-old age group.

10% of all study participant young people actively trying to lose weight, weight control behaviour increases with age, such that most one third (39%) of 15-year old girls are trying to lose weight.

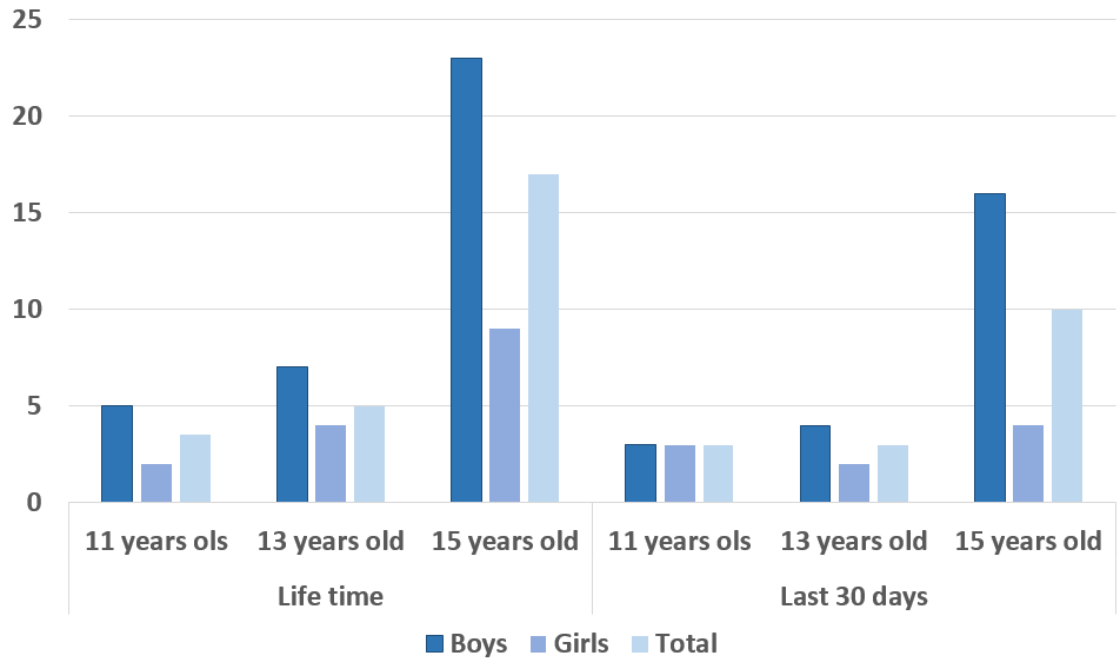
The survey indicated that, in general, teens were friendly and very rarely feel lonely. About 89% of boys and 85% of girls reported rarely feeling lonely. Most of the teens reported that they easily communicate with peers. Among 11-15-year-olds, 87% reported that they easily made friends. Among urban inhabitant teenagers, depression and feeling lonely was more prevalent than among rural adolescents, they find difficult to make friends and relationships with peers and feel lonely. Among girls, who often feel unconscious, 55% live in the capital, 25% live in other big cities, and 20% live in the countryside.

The study explored that 7% of 11-15-year-old teens had a chronic condition or disability, as diagnosed by a doctor. Moreover, 6.1% of adolescents used medications for their chronic conditions. In 3.1% of the cases, diseases influenced on school attendance and participation.

Oral health is a key indicator of overall health, well-being, and quality of life. It encompasses a range of diseases and conditions that include dental caries and etc. Oral hygiene skills should be formed at an early age (5). Our study found out that 54 % of young people brush their teeth at least once a day. Significant variation was observed in gender: in all age groups, girls brushed their teeth more often than boys. 57% of urban teens reported that they are brushing teeth more than once a day. This data decreased by 9% and reached 48% among rural adolescents.

Every tenth of 11 years old adolescent (23% of girl and 19% of boys) have tried smoking during their lifetime, the share of these pupils is increasing with the age. Tobacco use during last 30 days is the highest among 15-year-olds - 10% (16% in boys and 4% in girls).

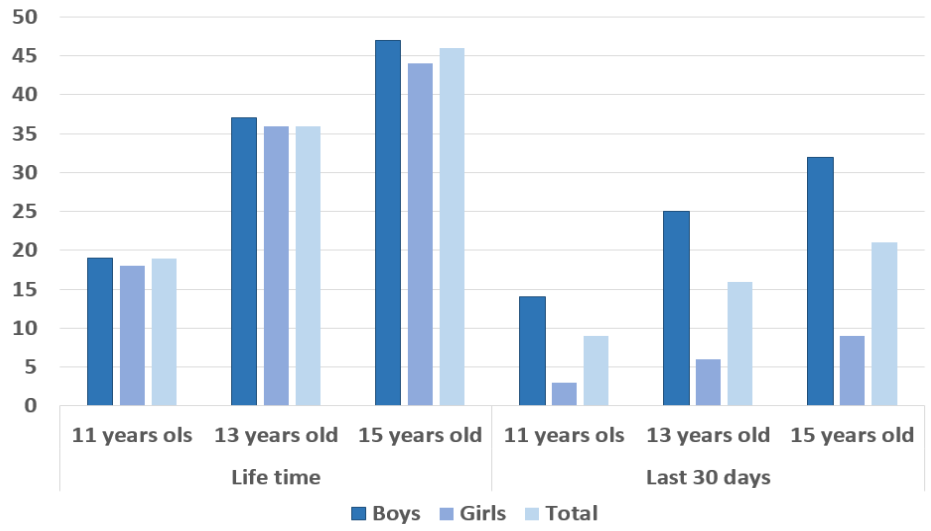
Figure 7.2 Tobacco use, HBSC, Georgia, 2018



28% of 15-year olds report they have been drunk at least once in a lifetime (34% of boys and 23% of girls). Alcohol consumption among 15-year olds is quite significant. Wine is the most popular drink for both girls and boys, with beer taking second place in popularity.

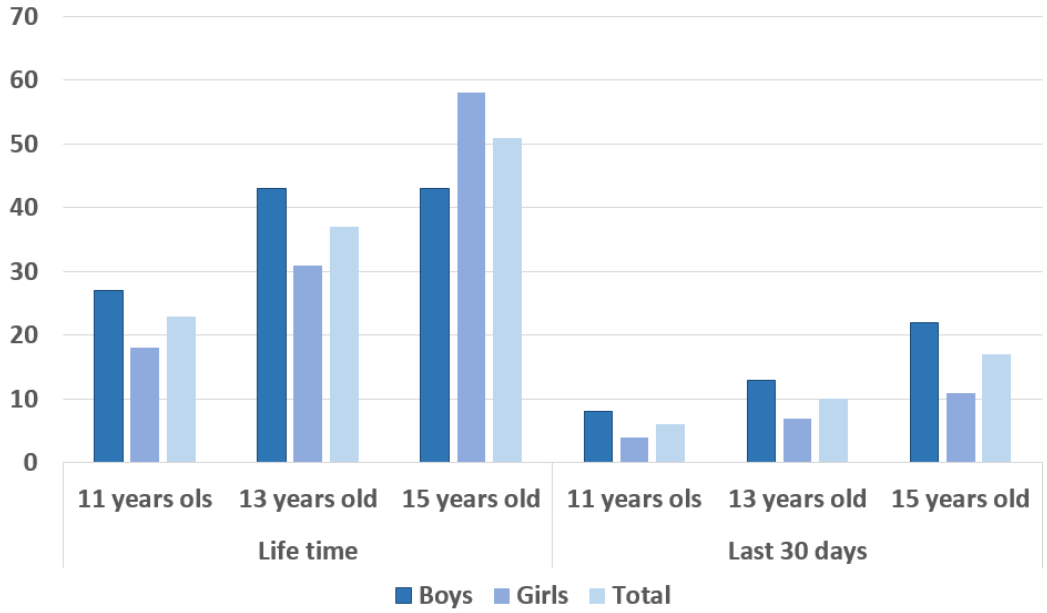
Nearly one out of five 11-year-olds and one in three 13-year-olds say they have taken alcohol at least once during live time. This share is the highest at the age of 15 years. The rate of alcohol intake during the last 1 month is quite high and increases with the age.

Figure 7.3 Alcohol use, HBSC, Georgia, 2018



Adults who have consumed alcohol during lifetime quite often report facts of intoxication; The rate increases with age.

Figure 7.4 Alcohol intoxication, HBSC, Georgia, 2018



Only 3% of 15-years old respondents have indicated using cannabis (marijuana, hashish, weed) during their lifetime, and 2.45% - recently, in the last month. Boys reported 10 times more often than girls experimenting with cannabis during their lifetime. Boys are more likely to use marijuana rather than girls during last month.

34.6% of 15-year olds gambled during the lifetime while 27.5% gambled in the last 12 months, boys more frequently than girls.

16% of 15-year-olds reported gambling at least once in their lifetime, and 28% of them had gambled during last 12 months. Boys play more often than girls. 45% of respondents, who have gambled once or more during last 12 months, said they had lied about gambling. 13% of gambled respondents indicated that they wanted to stop the game; 7% even mentioned that they had play for money.

Online communication is extremely prevalent in our current society, especially among teenagers. It can be used to support one-to-one or one-to-many interaction, and also to convey information in the body of the message (including links to websites) or via attachments. In the context of online learning and assessment, it is particularly valuable for private communication but is cumbersome for communication between groups. 12 % very strongly agree with study participant teenagers that they can talk to their best friend about their problems. 9% of young people report daily contact with their friends by phone, texting, email, instant messenger or other social media Daily electronic media contact with friends is more likely among boys than girls (10% versus 9%). 27% of 11-year olds speak to their friends daily via electronic media, rising to 36% among 15-year olds.

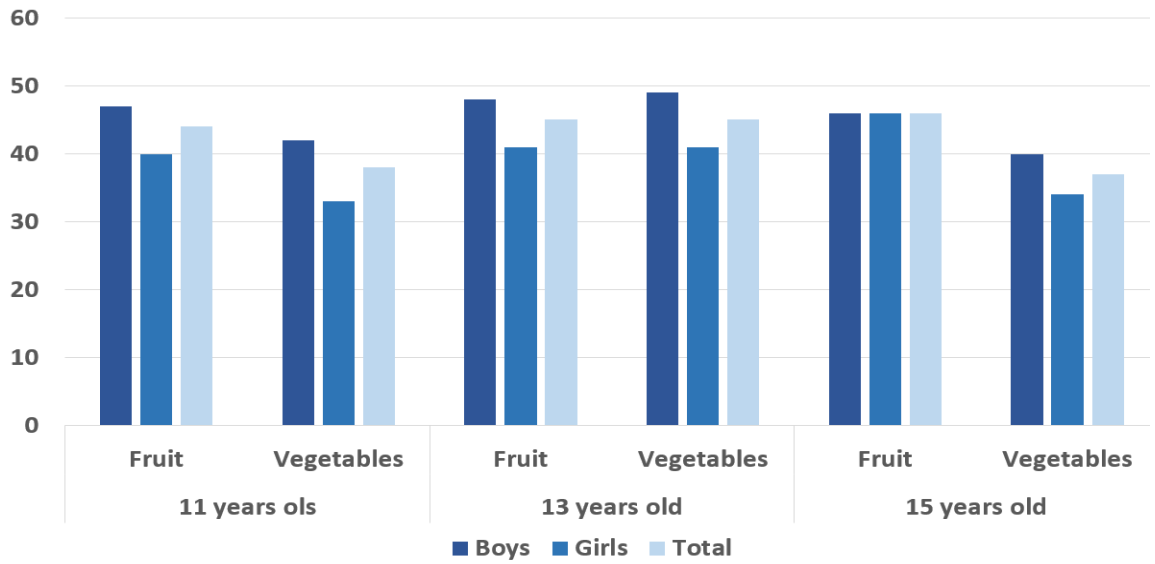
The survey showed that adolescents use social media extensively to interact with their peers. The use of social media is 2 times more common in rural areas (42%) than in urban (21%). 25% of teenagers living in the city also use social media.

85 % of young people live with both of their parents. 12% of study participants are living only with mothers and 2% lived only with fathers, just a minority 0.4% report living in the foster. 42 % of study respondents describe their family as ‘very well off’ and 0.2% “not at all well off”.

Most of the teens informed that family members are trying to support them, also 66.7% of teens reported that they have emotional support from the family members and helping them in the decision-making process.

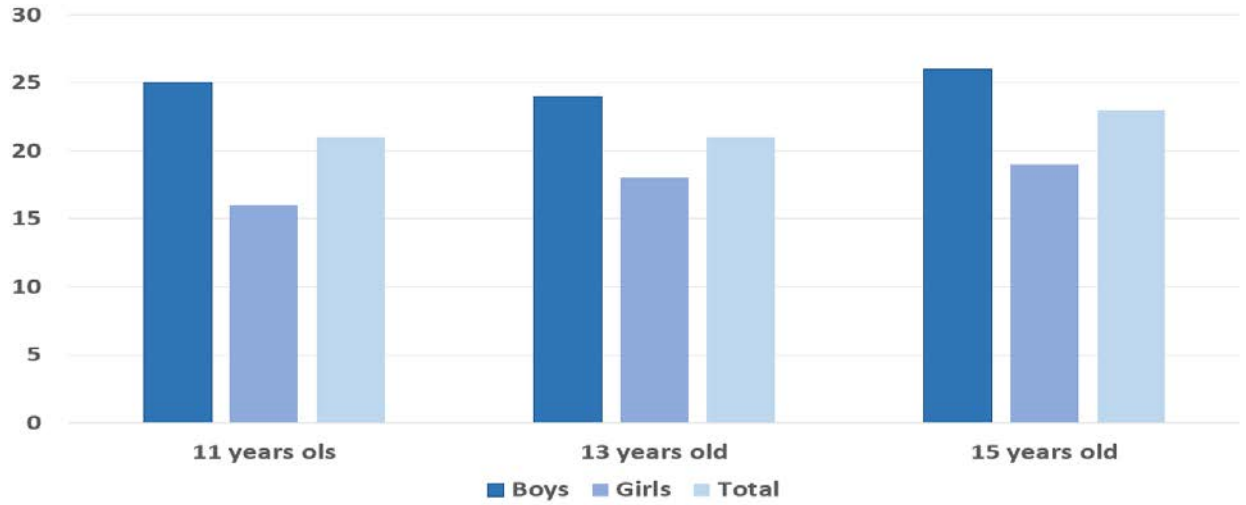
The presented study showed that 49.5 % of teens eat breakfast every weekday. The greater the age of the adolescents, the less they consumed to have had breakfast. Adolescents of all ages in urban areas were found to have had the most irregular breakfast eating habits. Fruit and vegetables are both consumed daily by only 14% of study participants. However, the daily consumption of fruit increased by age. The share of the study participants who consume sweets and chocolate every day or cola and other sugary drinks every day is 13% and 9% respectively.

Figure 7.5 Eating fruits and vegetables, HBSC, Georgia, 2018



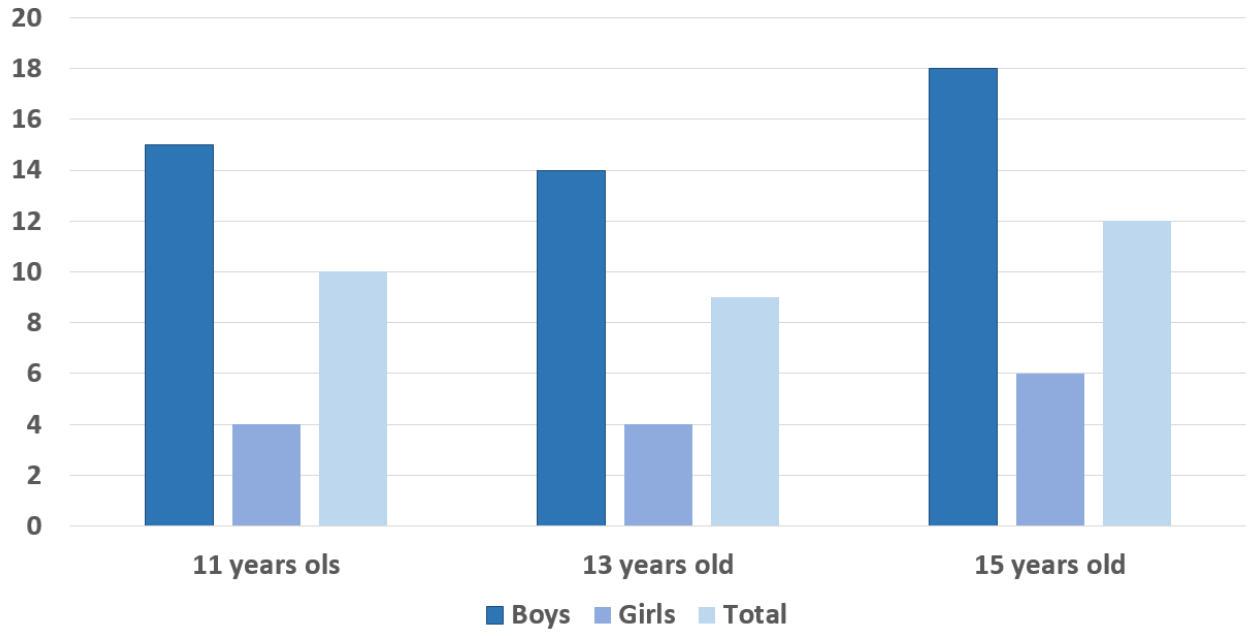
The study explored that boys were more physically active than girls. The rural adolescentswere slightly more active than the urban once. It also was found that 35% of 11-15-year-olds had intensive physical activity 4 -6 times a week and more and among 13 or 15-year-olds, 30%, and 24% respectively.

Figure 7.6 Physical activity (minimum 60 minutes per day), Georgia, 2018



36.9% of respondents indicated their involvement in a fight during the last 12 months once or more time. Boys reported involvement in a fight in the last 12 months 3 times more often than girls. 36.9% of respondents have been repeatedly involved in physical aggression one of more time during the last year, among them, boys are twice more than girls. Involvement of boys in physical aggression is increasing with age. This indicator is high in Tbilisi (8%), in other cities – 6%, in the rural area – 5%.

Figure 7.7 Prevalence of physical aggression during last 12 months (%), HBSC, Georgia, 2018



17% of young people report bullied others once or twice in the past couple of months. 14 % of young people report having been bullied at school at least once a month in the past couple of months. At the age 15, fewer adolescents (27%) report of being bullied than 11- and 13-year olds (35% and 38% respectively). at the age of 15 more girls reported being

bullied than boys (29% versus 24%). 5 % of girls and 17 % of boys report that they have been involved in a physical fight.

Figure 7.8 Cyberbullying (%) during last several months, HBSC, Georgia 2018

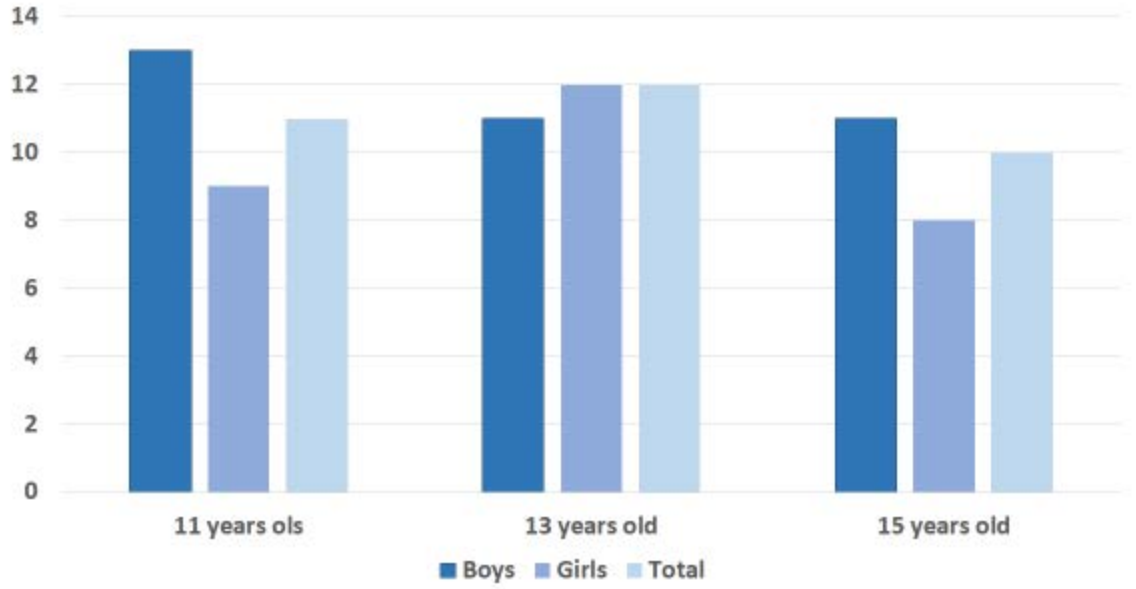
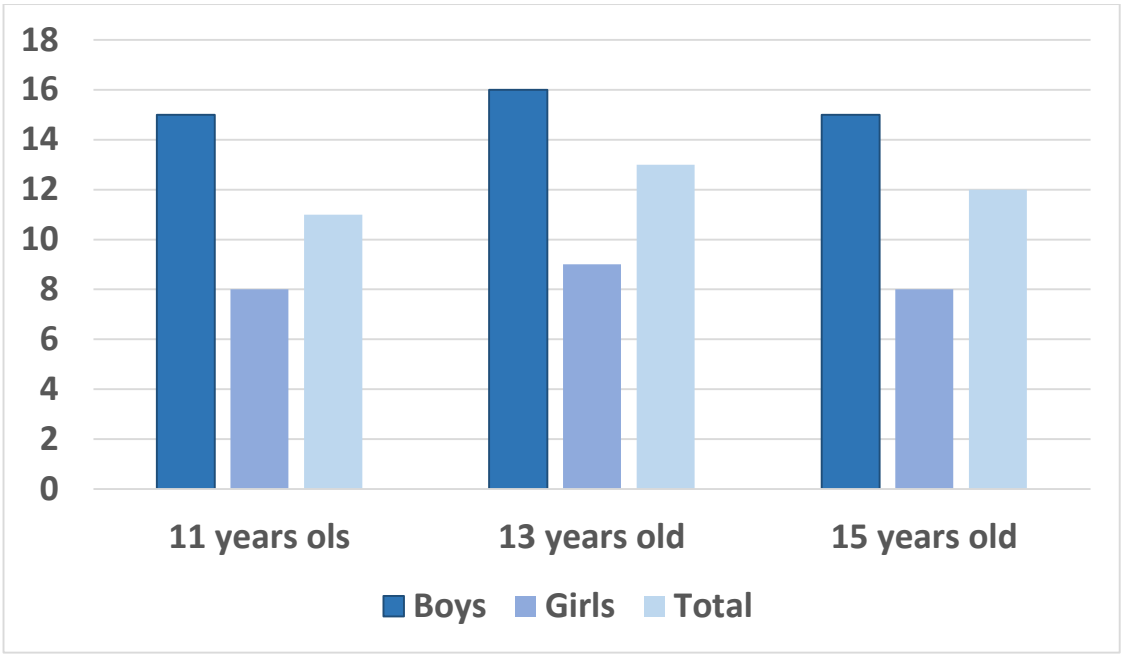


Figure 7.9 Victim of cyberbullying (%),HBSC, Georgia, 2018



Abbreviations

AFP	Acute Flaccid Paralysis
AIDS	Acquired Immune Deficiency Syndrome
AMR	Anti-microbial Resistance
ANC	Antenatal Care
COPD	Chronic Obstructive Pulmonary Diseases
CRD	Chronic Respiratory Diseases
EDPs	Especially Dangerous Pathogens
EIDSS	Electronic Integrated Disease Surveillance System
GAVI	Global Vaccine Alliance
GBD	Global Burden of Disease Study
GEL	Georgian Lari
GFTAM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GLAAS	Global analysis and Assessment of Sanitation and Drinking-Water Survey
HCV	Hepatitis C virus
HFA DB	Health For All Data Base
HIV	Human Immunodeficiency Virus Infection
HPV	Human Papillomavirus
IGME	Inter-agency Group for Child Mortality Estimation
IHME	Institute for Health Metrics and Evaluation
IHR	International Health Regulations
IPC	Infection Prevention and Control
IPV	Inactivated Polio Vaccine
LB	Live Births
M/XDR	Multidrug and extensively drug-resistant TB
MDG	Millennium Development Goals
MDR-TB	Multi Drug Resistant TB
MMEIG	Maternal Mortality Estimation Interagency Group
MoLHSA	Ministry of Labor, Health and Social Affairs
NCDC	National Center for Disease Control and Public Health
NEHAP	National Environmental Health Action Plan
NSO	National Statistics Office of Georgia
CR	Population-based Cancer Registry
PCR	Polymerase chain reaction
RHS	Reproductive Health Survey
SBA	Skilled Birth Attendance
SDG	Sustainable Development Goals
STI	Sexually Transmitted Infections
TB	Tuberculosis
UHC	Universal Health Coverage
VOT	Video Observed Therapy
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WTO	World Trade Organization

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