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PRIMARY MORBIDITY IN THE POPULATION OF THE REPUBLIC OF SAKHA (YAKUTIA) FOR THE PERIOD 2005-2021

The article presents an analysis of the primary morbidity of the population in the Republic of Sakha (Yakutia). The purpose of the study was to conduct a comparative assessment of primary morbidity indicators for the entire population of the Republic of Sakha (Yakutia) by disease class with similar average Russian indicators. At the same time, the morbidity rate for the period 2005-2021 was analyzed. The percentile method was used to determine morbidity levels. As a result, classes of diseases were identified that had high levels throughout the Russian Federation during the period under review. In this regard, the following classes of diseases are distinguished: diseases of the nervous system, eyes and its appendages, diseases of the respiratory and digestive organs, diseases of the skin and subcutaneous tissue, injuries, poisoning and some other consequences of external causes. The points for applying the efforts and resources of health care authorities and medical organizations of the republic to improve public health indicators are becoming obvious.

Keywords: primary morbidity, primary morbidity by disease class, Republic of Sakha (Yakutia), morbidity in the population of the Russian Federation.

Introduction. State and regional authorities of the Russian Federation are making considerable efforts to improve the health status of the population. This is evidenced, in particular, by the currently existing National Health and Demographic Projects and the State Health Care Development Program until 2024. At the same time, identifying those classes and types of diseases that are problematic in certain regions is of no small importance. We have set this task for our republic. At the same time, the following goal of the study was determined: to conduct a comparative assessment of primary morbidity indicators of the entire population of the Republic of Sakha (Yakutia) by disease class with similar average Russian indicators.

Materials and methods of research.

The materials of official statistics were analyzed: the Federal State Statistics Service (Federal State Statistics Service or Rosstat) and the Yakut Republic

can Medical Information and Analytical Center (YRMIAC) [1, 2]. When analyzing population morbidity, the percentile method was used. According to this method, regions with indicators up to the 10th percentile were classified as territories with a low level of one or another morbidity indicator, from the 10th to 25th percentile - with a level below average, from 75 to 90th - above average and above 90th percentile - with a high level. It is obvious that regions with indicators ranging from the 25th to 75th percentiles belonged to groups with average values.

Results and discussion. The analysis revealed the level of primary morbidity of the entire population for 2005 and 2010-2021 for the main classes of diseases [1, 2]. Table 1 presents primary morbidity indicators for the entire population of the Russian Federation and the Republic of Sakha (Yakutia) (registered diseases in patients diagnosed for the first time in their lives).

As stated, morbidity rates were determined using the percentile method for all subjects of the Russian Federation, including the Republic of Crimea and the city of Sevastopol since 2014, and the Arkhangelsk and Tyumen regions were assessed without taking into account the autonomous okrugs. We conducted similar studies earlier [3].

Thus, if in 2005 the republic was among the territories with an above-average

level of primary morbidity in general, then in 2010-2019 was already at a high level. At the end of 2017, this figure in the Republic of Sakha (Yakutia) was 31.2% higher than the Russian average.

For infectious and parasitic diseases during the period under review, the morbidity rate in the republic was average, not counting 2012 and 2020 (the level was below average). For neoplasms, an average morbidity rate is noted for all years, not including 2020.

For diseases of the blood and hemopoietic organs, the morbidity rate in 2005 and in 2010-2014 was above average. And for diseases of the endocrine system, a motley picture emerges: in 2005, 2010-2011, 2013 there was a high level, in 2012 and 2014 - above average, in 2016 and 2021 - below average, and in 2017-2018 and in 2020 - a low morbidity rate for this class of diseases.

For diseases of the nervous system in 2005, 2010-2016 there was a high morbidity rate, and in 2017-2019 and in 2021 the level is above average. Eye diseases: only in 2017-2018. and in 2020, the indicator can be attributed to the average level for the country; in the remaining years under review, levels above average and even high were noted (2010, 2013-2014). For ear diseases, the picture is more favorable, and in some years (2011-12 and 2016-2018) the morbidity rate was below average.

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Table 1

**Primary morbidity of the entire population of the Russian Federation and the Republic of Sakha (Yakutia) in 2005. 2010-2021.
(per 1000 people)**

	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Primary morbidity per 1000 population													
RF	743.7	780.0	796.9	793.9	799.4	787.1	778.2	785.3	778.9	782.1	780.2	759.9	857.1
RS (Y)	881.7	1023.4	1047.4	1066.5	1107.0	1098.1	1026.6	1043.8	1021.1	1015.3	1032.9	899.6	1053.8
Some infectious and parasitic diseases													
RF	37.3	32.8	32.4	32.1	30.9	30.8	28.1	27.9	27.3	27.0	26.6	20.5	21.4
RS (Y)	32.6	30.5	27.0	27.9	34.7	32.6	26.7	28.2	26.9	29.1	26.3	16.2	18.0
Neoplasms													
RF	9.5	10.8	11.1	11.6	11.4	11.6	11.4	11.4	11.4	11.6	11.9	9.8	10.2
RS (Y)	9.1	10.7	11.3	11.9	12.1	11.1	12.2	10.4	10.5	9.5	10.6	6.9	9.1
Diseases of the blood, hematopoietic organs and certain disorders involving the immune mechanism													
RF	4.5	4.9	4.7	4.7	4.7	4.7	4.7	4.7	4.5	4.3	4.2	3.3	3.5
RS (Y)	6.1	5.8	5.6	5.3	6.1	5.6	4.8	4.3	3.3	3.8	4.1	2.7	3.6
Endocrine system diseases, nutritional disorders and metabolic disorders													
RF	9.6	10.2	10.3	10.6	10.6	11.2	13.3	13.9	14.0	13.1	14.4	11.0	11.4
RS (Y)	15.7	16.7	15.9	14.7	20.3	15.7	12.6	9.2	6.6	8.2	13.1	6.4	8.4
Nervous system diseases													
RF	15.3	16.4	16.5	16.3	16.5	16.2	15.4	15.2	15.0	14.8	14.8	12.5	13.5
RS (Y)	27.8	32.0	32.6	33.9	36.7	36.6	28.7	22.7	18.7	18.7	19.1	14.6	18.5
Diseases of the eye and its adnexa													
RF	33.6	33.0	33.3	35.2	35.0	34.7	33.3	32.6	31.6	31.4	30.0	23.9	24.9
RS (Y)	46.0	49.5	47.3	49.6	50.2	52.9	40.2	39.5	33.3	32.8	34.2	22.9	29.3
Diseases of the ear and mastoid process													
RF	24.1	27.1	27.8	28.2	28.0	27.7	26.6	26.3	25.9	25.5	25.0	20.5	21.3
RS (Y)	22.5	25.4	23.8	24.0	24.9	26.7	25.6	21.5	21.1	21.0	23.6	15.0	17.6
Diseases of the circulatory system													
RF	23.0	26.1	26.6	26.6	29.9	28.8	31.2	31.7	32.1	32.6	35.0	29.4	30.5
RS (Y)	26.8	29.8	30.1	31.8	37.6	33.2	25.9	22.0	20.2	24.2	32.8	18.9	22.8
Respiratory diseases													
RF	294.4	324.0	338.8	330.9	338.4	333.4	337.9	351.6	353.5	359.8	356.2	370.6	407.1
RS (Y)	351.2	461.5	488.8	491.5	490.6	493.9	500.4	538.5	565.6	570.0	579.8	500.1	559.0
Digestive diseases													
RF	35.4	33.4	33.3	34.8	35.2	36.6	35.3	35.6	34.0	33.1	32.0	26.3	26.9
RS (Y)	71.0	77.7	83.1	87.0	95.9	94.4	78.6	71.0	58.3	55.7	51.3	43.4	49.1
Diseases of the skin and subcutaneous tissue													
RF	49.7	48.2	47.5	48.0	47.0	46.3	44.0	42.5	41.0	40.3	40.7	34.0	35.6
RS (Y)	56.7	60.2	62.7	62.2	63.9	62.2	55.4	55.6	51.6	45.2	43.3	33.5	37.9
Diseases of the musculoskeletal system and connective tissue													
RF	33.3	33.5	33.6	33.2	32.3	31.8	30.1	29.5	29.5	29.8	30.3	25.0	26.7
RS (Y)	33.9	36.7	36.6	40.4	40.9	38.7	26.9	31.0	24.5	25.6	26.3	23.7	30.1
Diseases of the genitourinary system													
RF	46.1	47.9	49.3	49.6	49.8	49.0	46.4	45.6	44.8	44.8	44.5	36.0	36.9
RS (Y)	50.1	50.9	51.5	52.2	59.4	59.0	49.7	47.4	37.3	35.8	36.2	27.8	30.7
Congenital anomalies (malformations), deformations and chromosomal disorders													
RF	1.7	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	1.7	1.7
RS (Y)	2.1	2.2	2.1	2.7	3.1	3.0	2.7	2.4	1.8	1.6	2.8	1.7	2.3
Injuries, poisoning and some other consequences of external causes													
RF	90.0	91.7	92.8	93.8	92.6	90.2	90.4	89.1	88.2	89.0	90.4	81.3	83.6
RS (Y)	93.7	104.0	101.8	106.5	103.1	105.0	105.3	112.6	117.7	112.2	107.1	95.9	101.5

Legend:

20.3	high morbidity rate
15.7	morbidity rate is above average
8.4	Morbidity rate is below average
6.4	low morbidity rate

Table 2

Primary morbidity of the entire population in the Russian Federation and the Republic of Sakha (Yakutia) in 2016-2017. (per 100,000)

Classes of diseases	RF		RS (Yakutia)	
	2016	2017	2016	2017
Mental and behavioral disorders	442.5	416.9	483.8	380.5
Pregnancy, childbirth and the postpartum period*	6307.9	6072.5	6504.8	5407.3
Symptoms, signs and abnormalities identified during clinical and laboratory tests, not classified elsewhere	92.1	95.6	4.8	-

* The indicator is calculated for the female population (10-49 years old)

The picture regarding diseases of the circulatory system is ambiguous. So, if in 2012-2013 the morbidity rate was above average, then in 2016-2018 and in 2020 the level became below average or even low. The situation with respiratory diseases is more clear: only in the mid-2000s the level was above average, in other years since 2010 it was high. And for diseases of the digestive system, everything is clear: for all years there has been a high morbidity rate, with the exception of 2020, when the level was above average.

Diseases of the skin and subcutaneous tissue: during 2010-2017. There are above average and high (2013-2014) morbidity rates. For diseases of the musculoskeletal and genitourinary systems, the indicators are within average values, excluding 2013-2014, when the level was above average for both classes. For congenital anomalies, above-average rates were observed not only in 2013-2014, but also in 2019 and 2021.

In the class "Injuries, poisonings and some other consequences of external causes", recent years have caused concern: since 2016, indicators have been above average, and in 2017 there was even a high level of injuries and poisonings.

For a number of other classes, we previously assessed the morbidity rate

according to the data of the Ministry of Health of the Russian Federation (Table 2) [3]. Thus, for mental disorders and behavioral disorders, as well as for complications of pregnancy, childbirth and the postpartum period, the indicators were within the average level. And in the class "Symptoms, signs and deviations from the norm, identified during clinical and laboratory tests, not classified in other headings," which largely characterizes the quality of all medical care in a particular region, the republic's indicators were not bad - the level was low.

Conclusion. Thus, based on the comparative characteristics of the levels of primary morbidity of the population of the Republic of Sakha (Yakutia) with similar indicators of all regions of the Russian Federation for the period 2005, 2010-2021. The following conclusions can be drawn.

1. In terms of primary morbidity of the entire population, the Republic of Sakha (Yakutia) is consistently among the subjects of the federation with the most unfavorable level of this indicator, and in 2010-2019. The republic was part of the group of regions with a high morbidity rate.

2. By disease class (entire population): relatively high rates are observed in such classes as diseases of the blood, hematopoietic organs and endocrine sys-

tem (2005, 2010-2014), diseases of the nervous system (2005, 2010-2019 and 2021), respiratory and digestion (2005, 2010-2021), diseases of the skin and subcutaneous tissue (2010-2017), eye diseases (2005, 2010-2016, 2019 and 2021), congenital anomalies (malformations) (2013-2014, 2019 and 2021), injuries and poisonings (2015-2021). In addition, for diseases of the musculoskeletal and genitourinary systems in 2013-14 higher than average morbidity rates were observed.

3. Thanks to the efforts of the republic's health authorities and institutions, relevant specialized services and specialists, it was possible to correct the situation and improve indicators in the second half of the 2010 and the beginning of the 2020 for the following classes of diseases: Diseases of the endocrine system, nutritional disorders and metabolic disorders; Diseases of the circulatory system.

4. We hope that the presented data will help to apply the efforts and resources of health authorities, institutions and services to the most problematic issues of public health in the Republic of Sakha (Yakutia).

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