

LEADING ARTICLE

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DYNAMICS OF THE BASIC INDICATORS OF THE CHILDREN'S POPULATION HEALTH IN THE REPUBLIC SAKHA (YAKUTIA)

Abstract

The article analyzes the main health indicators of children and adolescents of the Republic Sakha (Yakutia) in the period of implementation of major projects in the health field from 2000 to 2014. It is noted that according to official health statistics rate of primary and general morbidity of children and adolescents of the Republic Sakha (Yakutia) increased. Presented structure of the general and primary morbidity of children and adolescents can be an effective tool in improving the pediatric service of the Republic Sakha (Yakutia).

Keywords: children, health, disease, Yakutia.

INTRODUCTION

Child and Adolescent Health of the Republic Sakha (Yakutia) is an indicator of socio-economic development of the region. The healthy children and adolescents are the closest reproductive, social, economic, military and intellectual reserve of the society, are of paramount importance for the whole country. The health of children and adolescents is made up of the level of physical, mental, functional development, and directly depends on the development of a network of medical facilities in the region.

At the beginning of the XXI century in Russia there was an extremely worrying situation in the area of children's health, which is due to unfavorable levels of the most important indicators of the health of children and adolescents [1-3]. To a large extent this also applies to the region of the Far Eastern Federal District [4] and the Republic of Sakha (Yakutia) [5].

In recent years, Russia has implemented large-scale projects in the field of health as priority national project "Health", health care modernization program. All this, no doubt, played a role in changing indicators and indicators of population health.

MATERIALS AND METHODS

We analyzed the basic health status of children and adolescents of the Republic of Sakha (Yakutia) in the period of implementation of major projects in the health field from 2000 to 2014.

RESULTS AND DISCUSSION

Indicators of fertility, infant mortality, the incidence of child and adolescent population reflect the actual characteristics of the population living in the region and allow to develop the neces-

sary measures to protect and improve public health.

The birth rate in the Republic of Sakha (Yakutia) is one of the positive indicators, so in the dynamics it increased from 13.7 in 2000 to 17.8 in 2014 (Table 1).

During the period there is a dynamic decrease in the infant mortality rate. So, if in 2000 infant mortality rate was 17,6, in 2014 the figure was 8.0 per 1,000 live births (Table 2).

Currently, primary morbidity of children population of RS (Y) remains high and continues to rise (Tab. 3). Index of general morbidity of children under 14 years in the Republic of Sakha (Yakutia) for the period 2000-2014 increased by 73.8 (Table 3). Today there are the obvious changes in the structure of morbidity of children. Over the past 10 years significantly the incidence of infections and parasitic diseases reduced. During the study period, the overall reduction in the incidence of children happened in the following categories "some infectious and parasitic diseases", "diseases of the endocrine system, nutritional metabolic and immunity disorders." A significant increase in the overall incidence occurred in the following categories: "neoplasm", "nervous system diseases", "diseases of the eye", "diseases of the ear and mastoid process", "disease of the digestive system" and "diseases of the musculoskeletal system and connective tissue congenital anomaly".

Indicators of general morbidity in adolescents 15-17 years of Sakha (Yakutia) are presented in the Table. 4. The test indicator rose significantly (by 10 times) over the time period of interest. Such classes of diseases, as a "neo-

plasm", "diseases of the musculoskeletal system" has a 3-fold increase in morbidity, "respiratory diseases", "diseases of the ear and mastoid process", "injury and poisoning" increased by 2 times.

During the test the dynamic decade decline in the overall incidence of adolescents occurred in two classes of diseases: it is "infectious and parasitic diseases" and "diseases of the nervous system."

It is well known that the level of primary morbidity of children in the RS (Y) exceeds the average figures for the past few years. The growth of this indicator was mainly due to the incidence of neoplasm, diseases of the nervous system, digestive disorders and congenital anomalies. This circumstance can we explain the real increase in the incidence, increasing access to diagnosis and Disease Registry.

As shown in Table. 5 in the analyzed decade outstripping growth rates of

Table 1

The dynamics of the birth rate in the Republic of Sakha (Yakutia)

The birth rate	2000	2005	2010	2014
Sakha (Yakutia), 1000	13,7	14,3	16,8	17,8
RF 1000	—	10,2	12,5	13,3

Table 2

Trends in infant mortality in the Republic of Sakha (Yakutia) (per 1,000 live births)

The infant mortality rate	2000	2005	2010	2014
RS (Y)	17,6	10,6	7,2	8,0
RF	—	11,0	7,5	7,4

Table 3

Indicators of general morbidity of children from 0 to 14 years for 2000-2014 in the Sakha Republic (Yakutia) of the main classes of diseases, per 1,000 children

Designation of classes of diseases	2000	2005	2010	2014
All diseases of them:	1623,6	2195,2	2769,3	2823,2
infectious and parasitic diseases	105,8	75,9	83,2	86,7
neoplasm	4,4	11,6	14,2	15,3
diseases of the blood and blood-forming organs	19,3	27,6	29,1	23,7
endocrine, nutritional, metabolic and immunity	43,5	47,7	36,3	34,3
mental and behavioral disorders	18,6	17,7	16,0	19,7
diseases of the nervous system	88,7	132,6	155,8	163,8
Diseases of the eye	79,5	116,9	142,6	155,4
Diseases of the ear and mastoid process	29,0	52,8	55,9	59,6
diseases of the circulatory system	6,9	12,5	12,1	9,6
respiratory diseases	897,7	1156,0	1577,1	1634,1
diseases of the digestive organs	95,6	193,4	230,2	244,6
diseases of the skin and subcutaneous tissue	80,8	122,7	144,9	137,4
diseases of the musculoskeletal system and connective tissue	16,9	43,6	37,7	35,5
diseases of the genitourinary system	29,0	46,9	50,8	55,1
congenital anomalies (birth defects), deformations and chromosomal abnormalities	14,0	22,0	28,3	31,1
injury, poisoning and certain other consequences of external causes	59,3	79,1	95,8	97,9

Table 4

Indicators of general morbidity of adolescents aged 15-17 years for 2000-2014 in the Sakha Republic (Yakutia) of the main classes of diseases, by 1000 adolescents

Designation of classes of diseases	2000	2005	2010	2014
All diseases of them:	111,1	735,4	2001,6	2124,7
infectious and parasitic diseases	42,6	42,9	32,6	42,1
neoplasm	2,4	7,7	7,1	11,3
endocrine, nutritional, metabolic and immunity	66,7	120,4	83,5	68,2
mental and behavioral disorders	34,7	40,6	38,3	41,0
diseases of the nervous system	222,7	143,7	162,1	174,0
Diseases of the eye	—	167,7	215,4	221,3
Diseases of the ear and mastoid process	14,6	37,8	33,4	36,0
diseases of the circulatory system	21,8	36,3	31,8	37,3
respiratory diseases	346,1	520,1	708,7	775,4
diseases of the digestive organs	103,7	192,4	202,4	249,0
diseases of the skin and subcutaneous tissue	58,9	99,7	102,3	118,8
diseases of the musculoskeletal system and connective tissue	27,8	64,4	89,9	82,0
diseases of the genitourinary system	58,4	78,9	76,9	80,2
congenital anomalies (birth defects), deformations and chromosomal abnormalities	13,1	14,5	18,9	17,2
injury, poisoning and certain other consequences of external causes	76,3	114,5	158,5	134,6

Table 5

Indicators of primary morbidity of children from 0 to 14 years in 2000-2014 in the Republic of Sakha (Yakutia) for the main categories of diseases set out for the first time, 1,000 children

Designation of classes of diseases	2000	2005	2010	2014
All diseases of them:	1348,7	1591,7	2255,0	2412,5
infectious and parasitic diseases	86,7	67,3	76,0	80,6
neoplasm	2,4	5,9	8,1	8,8
diseases of the blood and blood-forming organs	10,3	13,8	13,3	11,7
endocrine, nutritional, metabolic and immunity	19,5	22,6	13,1	15,7
mental and behavioral disorders	4,8	4,0	2,6	3,7
diseases of the nervous system	24,8	47,4	63,1	82,6
Diseases of the eye	50,8	61,9	83,9	90,2
Diseases of the ear and mastoid process	31,5	39,5	49,0	49,7
diseases of the circulatory system	4,3	7,4	5,6	6,0
respiratory diseases	831,0	924,3	1464,3	1556,4
diseases of the digestive organs	77,9	133,0	171,3	199,2
diseases of the skin and subcutaneous tissue	71,3	84,6	118,1	222,5
diseases of the musculoskeletal system and connective tissue	16,2	33,8	25,9	27,0
diseases of the genitourinary system	17,4	28,8	34,9	40,0
congenital anomalies (birth defects), deformations and chromosomal abnormalities	2,5	6,9	7,6	11,5
injury, poisoning and certain other consequences of external causes	67,4	73,5	93,5	97,8

primary morbidity of children occurred in most major classes of diseases and totaled 78.8. The most substantial growth, an increase of 2 times or more, occurred in such classes of diseases, as a "neoplasm", "diseases of the digestive and urogenital system", "congenital malformations" and "diseases of the nervous system." In diseases such as "some infectious and parasitic diseases", "diseases of the endocrine, nutritional, metabolic and immunity" and "mental and behavioral disorders" has a dynamic frequency reduction of the initial registration.

The indicator of primary morbidity of adolescents in the Republic of Sakha (Yakutia) for the 2000-2014 increased by 93.9 reaching 1521.6. The greatest increase in incidence occurred in the primary category "neoplasm", "nervous system diseases", "diseases of the musculoskeletal system and connective tissue disorders," "diseases of the digestive system", "cardiovascular disease". The decrease of the index is observed in the incidence of such classes as "endocrine, nutritional, metabolic and immunity," "some infectious and parasitic diseases" and "mental and behavioral disorders" (Table. 6).

CONCLUSIONS

Incidence rates are based on the existing official health statistics underlie on the appealability of the population. It should be noted that our republic official data of medical statistics due to accurate work of pediatricians, specialists, medical statisticians are very reliable. There is a vast array to study health parameters and to support perspective areas of Healthcare service in the republic.

Today, in Yakutia, as well as in Russia, rate of primary morbidity of children and adolescents is increasing, as well as the number of chronic diseases. This does not only speaks about the deterioration of children's health, but also is an indicator of the effective operation of pediatric services in general to identify pathology in children and adolescents. Presented dynamics of health status of children and adolescents can be an effective tool in improving the pediatric service of the Republic Sakha (Yakutia). Taking into account the revealed pathology structure one can plan in the long term specialized pediatric health care services.

Table 6

Indicators of primary morbidity of adolescents 15-17 years of 2000-2014 in the Sakha Republic (Yakutia) of the main classes of diseases, by 1000 adolescents

Наименование классов болезней	2000	2005	2010	2014
All diseases of them:	784,5	1046,9	1339,9	1521,6
infectious and parasitic diseases	35,4	30,5	25,8	33,3
neoplasm	2,0	4,9	3,6	6,5
diseases of the blood and blood-forming organs	8,6	15,1	12,4	12,8
endocrine, nutritional, metabolic and immunity	32,8	30,6	21,9	26,1
mental and behavioral disorders	20,2	9,6	10,5	5,9
diseases of the nervous system	25,4	46,4	57,7	70,9
Diseases of the eye	49,6	57,5	78,9	97,5
Diseases of the ear and mastoid process	15,1	23,9	22,8	26,2
diseases of the circulatory system	7,7	16,9	13,8	19,6
respiratory diseases	343,8	416,5	622,3	691,0
diseases of the digestive organs	49,3	105,8	126,9	184,1
diseases of the skin and subcutaneous tissue	53,6	80,8	76,5	89,5
diseases of the musculoskeletal system	16,9	34,1	54,7	57,2
diseases of the genitourinary system	30,7	44,1	45,3	52,4
complications of pregnancy, childbirth and the postpartum period ¹	13,4	18,6	19,4	–
congenital anomalies (birth defects), deformations and chromosomal abnormalities	2,7	2,9	3,3	2,3
injury, poisoning and certain other consequences of external causes	78,7	114,8	152,5	134,6

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MODERN TENDENCIES OF LUNG CANCER MORBIDITY IN YAKUTIA

ABSTRACT

Analysis results of 6865 cases of lung cancer morbidity in the territory of the Republic Sakha (Yakutia) in the period of 1991-2010 are presented. Most of them are men-4789(69.8%), women-2076 (30.2%). Populational, territorial and temporal regularities are found out.

Keywords: lung cancer, morbidity, prevalence, dynamics, prognosis.

INTRODUCTION

Annually in the world about 1.5 mln new cases of lung cancer are expected, it's about 12%. According to the MAIR data in economically developed countries three kinds of diagnosed cancer are singled out: men have cancer of prostate gland,

lung, bronchial tubes and colorectal cancer, women-cancer of mammary gland, cervix, lung, bronchial tubes, colorectal cancer.

In some developed countries the highest data of lung cancer morbidity of both sexes are observed (Population is 100000) in Germany-63.7 and

13.5, in England-51.2 and 22.0, in Canada-80.2 and 30.8, in the USA-85.9 – black people, 36.8- white people, in some provinces of China-44.4, Korea 49.0, Japan-41.9. The lowest data of men are in Uganda (Africa)-3.9. The highest data of lung cancer are found out in Canada-30.8-women,