The contemporary state and problems of specialized oncological assistance to the population of Yakutia

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The retrospective analysis of oncological assistance state in the Republic of Sakha (Yakutia) 1995-2007 shows that there are a lot of problems, requiring a decision. The most important of them are the increase of annual preventive medical examination and the improvement of logistical base of the Yakut republican oncological clinic (YROC), which doesn't meet contemporary requirements.

Key words: neoplasm, prevalence, dynamics, forecast.

Introduction. In Russia 285,9 thousand people died because of malignant neoplasm (MN) in 2007. In death-rate structure from all causes it is 14,0% of male population and 13,4% of female one. The correlation of men and women – 1,0:1.2. The proportion of deads because of MN in able-bodied age (15-59) is 13,4%, in reproductive age (20-44) – 14,1% women. About 1/3 (28,3%) of men's death are caused by lung cancer, 13,8% - stomach cancer, 7,1% - urino-system cancer, 5,8% - prostate gland cancer, 5,6% - colon cancer and 5,4% - rectum one. 17,3% of women's death are caused by lactic gland cancer, 12,3% - stomach cancer, 9,2 – colon, 6,4 – lung cancer, 6,2 – rectum, 5,8 – ovary, 5,3 – hemoblastosa, **4,7 –** colii uteri**, 4,7 –** colli uteri (uterus neck).

Research purpose – studying of the state of specialized oncological assistance to the population of the Republic of Sakha (Yakutia)

Materials and methods. The YROC account materials on a state of specialized oncological assistance to the population in 1995-2007 were put to the intensive retrospective analysis. During this period the common number of cases with MN was 24,2, the number of the deads – 16,1 thousand people. The correlation index of the deads to the patients during this period is 0,67, by variations – from 66,0 in 2007 till 79,0 in 1995.

Results and discussion. 1340 death cases from MN were registered in Yakutia in 2007. The specific proportion of people not registered in oncological register is high among the deads (Yakutia – 5,3%, Russia – 5,4%). In Russia 2,7% from common number of the patients, revealed in 2007 the diagnosis was put after the death. In Yakutia it was 3,0%.

The relation index of the deads to the patients in 2007 in Yakutia was 66,0. Particularly, 100,0 – the deads from gullet cancer, 93,0 – lung, 91,5 – stomach, 73,7 – colon cancer. More

patients than were revealed died from MN for a year in Eveno-Bytantaysky (300,0), Oleneksky (180,0), Allaikhovsky (111,1), Ust-Aldansky (111,1), Namsky (109,7), Verkhneviluysky (106,0) districts of Yakutia. Intolerably low quality of patients' registration with gullet cancer was registered in Gorny (200,0), Olekminsky (166,7), Nurbinsky (150,0), Aldansky (120,0) districts and in Yakutsk (166,7). With stomach cancer in Eveno-Bytantaysky (300,0), Momsky, Ust-Aldansky, Ust-Yansky (200,0) and other districts.

In 2007 more patients with lung cancer died than registered in Eveno-Bytantaysky (200,0), Megino-Kangalassky (150,0), Abiysky (150,0), Oleneksky (150,0), Suntarsky (133,3), Lensky (127,8), Viluysky (125,0), Olekminsky (125,0) districts by average republican indicator 93,0. In quantity of the relation index by colon cancer Tattinsky (300,0), Verkhneviluysky (200,0), Olekminsky (125,0) districts are in trouble. As much patients as were revealed died in Momsky and Namsky districts.

Morphological confirmation of diagnosis let us judge the real degree of analysed information about oncological patients. In Yakutia the specific proportion of patients with MN with morphologically confirmed diagnosis was from 66,7 to 83,5% during the last ten years. In 2007 lung cancer 48,7 (Russia 58,3), gullet cancer 76,8 (78,2), stomach cancer 78,7 (82,0) patients had morphological confirmation. Frequency of morphologically confirmed cases with MN of reproductive organs is relatively high: lactic gland – 96,1 (Russia 95,4), colli uteri 95,0 (97,5),colli uteri– 96,1 (96,4) and ovary 87,3 (87,7).

In dynamics the common indicators of morphological confirmation of diagnosis had a tendency to growth. In 2007 the part of patients with morphologically confirmed carcinoma diagnosis was higher (73,2%) than in 2000 (63,2). The highest percent of morphological confirmation of the diagnosis was recorded in Gorny (92.3%), Nizhnekolymsky (90,9), Momsky (88,2) districts, the lowest indicators - in Verkhnevilyusky (36,4), Verkhoyansky (31,2) and Tattinsky (33,3) districts.

According to the analysis, the indicators of morphological confirmation of diagnosis depending on tumor's nosological form varies to a considerable extent. With gullet cancer the part of the patients with confirmed diagnosis in Bulunsky (33,3) and Verkhnevilyusky (27,3) districts is lower than the average republican levels (69,7%). With stomach cancer in Zhigansky and Nizhnekolymsky districts (33,3 and 37,5; in Yakutia - 76,4), with colon cancer in Lensky (29,6) and Gorny (25,0) districts (RS – 68,1%). With average republican indicator 77,6% diagnosis' confirmation with rectum cancer in Verkhnekolymsky and Tattinsky districts is 50,0 and 40,0% (RS – 68,1%).

According to the contemporary conception, the development of polyneoplasia is connected with the wide introduction of highly effective combined methods of treatment of malignant tumors with the help of radial therapy, polychemotherapy and immunosuppressia. In the Republic of Sakha the part of patients with initially multitumors in 2007 in common number of new revealed patients with MN was 2.2% (Russia – 3,1), including 22,7% (the Russian Federation (RF) 33,0%) synchronous. The indicator of initially multitumors MN was 4,6% in 2007 in Yakutia (the RF – 10.0).

In 2007 the percent of inclusion with preventive examination of the population was 95,8% in the republic. From common number of the patients with initially diagnosed MN 10,0% were revealed on the preventive examinations. The indicator of the active revealing of visual located tumors is intolerably low: lactic gland (from 18,9 to 25,0%), colli uteri (from 16,7 to 39,2%) and thyroid gland (from 13,6 to 19.1%).

In the RS(Y) among the patients for the first time in life diagnosed MN the part of the patients with the 1-2nd stages varied from 17,4 to 39,2%, with the 3rd stage – from 30,6 to 39,2%.

During the last 5 years (2003-2007) from 9076 patients with the first time in life diagnosed MN in 801 (8,8%) cases the tumor were revealed on the preventive examinations. 591 (73,8%) patients had the 1-2nd stage of disease, which makes 21,5% from the common number of patients diagnosed on the same stage. Relatively high specific proportion of diagnosed cases in the 1-2nd stages of the process exceeding 40,0% was fixed in Mirninsky (41,0%), Nerungrinsky (45,8%) districts at the end of the analysed period.

Meanwhile, in spite of relatively high inclusion with preventive examination of the population of the republic, the neglected stage of the disease is revealed in 32,7 – 41,4% (the RF – 22,8%) cases from all number of the first registered patients with MN. Moreover, the stable tendency to the increasing of the part of patients with 4th stage is found in all localizations. Because of it from the number of the first diagnosed patients half of them lived only about a year after diagnosis. In 1995 the indicators of lethality in a year made 55,2%, in 2007 – 46,3% (RF 30.2 in 2007) on the whole because of the death reduction from stomach cancer (from 70,5% in 1995 to 59,0 in 2007), colon cancer (from 53,5 to 43,4%) and rectum cancer (from 45,4 to 39,8%). Foregoing indicators average in Russia in 2007 made 53,5; 34,4 and 30,0%. Meanwhile the percent of lethality in a year from lung cancer (71,9 in 1995 and 71,8% in 2007), gullet cancer (71,3 and 75,0%) practically stayed on the same level (RF – 55,3 and 63,3 in 2007). The indicators of the lethality on the first year after diagnosis exceeded the indicators of neglecting (the 4th stage) in 1,3-1,5 times, which is the result of not objective estimate of the process

spreading level by the registration of patients. It relates to the indicators with tumors: of head, neck, larynx, thyroid gland and colli uteri.

In 2007 from 1914 patients 707 or 36,9% (RF – 52,0), or 60,3 on 100 patients with the 1-3rd stages of disease (RF – 75,1) ended their treatment on radical program. During 1995-2007 the number of people, ended special treatment, had a tendency to the reduction (from 47,1 to 36,9%).

The specific proportion of the contingent, ended special treatment in relation to the patients, registered with the 1-3rd stages of disease, decreased on 1/3 (from 84,2 to 60,3%). The number of patients, who were treated by chemoradial therapy decreased more than in 4 times (from 9,7% in 1995 to 2,0% in 2007). The reduction of the part of patients, ended only the course of radial (3,7 times) and chemotherapy (2,3 times) was considerable. Meanwhile, the number of patients ended only surgical treatment increased in 3,3 times, and the number of people ended special treatment as a complex and combined ones increased in 1,2 times.

It should be admitted, that the treatment, first of all, combined and complex ones, is held back because of the lack of logistical base of the YROC. In spite of it, the common number of patients, irrespective of the disease stage and the time of registration and patients ended their medicinal treatment (including other therapies) made up 726 people or 37,9% from the common number of registered for a year, including patients with MN of lymphatic and circulatory tissues – 83 (11,4%). Besides, 431 people got radial treatment, which corresponded to 22,5 on 100 registered patients.

The indicators of the correlation of patients with MN, ended special treatment, reckoning on 100 new revealed (1st indicator) or on 100 patients with 1-3rd stages of disease (2nd indicator) not only show the level of treatment, but also allow to learn its dynamics. In 1995-2007 in the republic the reduction of the part of patients, ended special treatment was found among the patients with stomach cancer (1st – from 30,2 to 22,3 and 2nd – from 66,7 to 41,5%), lung cancer (from 43,2 to 4,5 and from 68,4 to 57,1%), coli uteri (from 85,2 to 35,0 and from 94,5 to 93,7%), corpus uteri (from 90,5 to 92,3 and from 100,0 to 96,1%) and ovary cancer (from 95,0 to 76,9 and from 100,0 to 96,8%).

Among some territories of Yakutia the lowest first indicator (less than 25,0%) was found in Zhigansky, Churapchisky, Verkhnevilyusky, Verkhoyansky, Anabarsky, Srednekolymsky districts, and the second one (not higher than 30,0%) – in Verkhoyansky, Zhigansky, Oleneksky, Srednekolymsky districts. During this period the average republican indicators were 38,8 and 68,4% (RF – 52,0 and 75,1%).

During the last 5 years 204 patients with stomach cancer ended special treatment, which is 22,1 on 100 new registered or 39,1 on 100 patients with the 1-3rd stages of disease (RF – 33,9 and 64,7%). The indicators lower 10,0% were found in Aldansky, Verkhoyansky, Kobyasky, Olekminsky and other districts. With lung cancer these coefficients are unwarrantedly low in comparison with average Russian indicators (24,4%). It should be mentioned, that in 15 from 35 districts of the republic anyone didn't end the treatment, although there were cases of lung cancer there.

The specific proportion of the surgical methods as an independent kind of special treatment increased (from 26,9 to 41,3%) for the last years (1995-2007). The part of combined (or complex) methods of treatment increased, which won recognition because of its high effect (from 28,0 to 45,1%). Meanwhile, the part of radial and medicinal therapy in structure of using of treatment kinds decreased in 6,0 and 2,0 times.

The high indicators of using of the surgical methods as an independent kind of a special treatment were recorded by stomach (66,7%), bladder (64,3%), rectum cancer (61,7). The radial therapy was used with high frequency by the treatment of larynx cancer (40,0%), mouth and gullet cancer (38,9%) and шейки матки (25,0%). The anti-tumor medicinal therapy was widely used by the treatment of MN of lymphatic and circulatory tissues (86,9%, RF – 75,7%) and by the treatment of MN by children (64,3%, RF – 49.0%).

In all in 2007 from 613 patients, registered and ended the special treatment with using of a surgical methods (as an independent kind of treatment, as a component of complex and combined methods) were cured 554 (RS – 87,7%, RF – 78,5%) patients.

Besides using of conservative methods of treatment the most progressive ways of treatment such as "Daily hospital", "Home hospital", "Out-patient reception hours" were introduced for the last years, which increased the qualitative indicators of a specialized help.

At the end of 2007 the number of patients under the observation reached 8146 people, that exceeds in 62,2% the indicators of 1995. At the end of the year the indicators of the contingent under the observation made up 481,9 and 856,8 on 100000 of population, the growth was almost in twice for the analyzed period.

The part of the contingent under the observation for 5 and more years increased from 48,7% in 1995 to 51,6% in 2007. The lowest indicators of 5-year survival were found by gullet, lung, prostate gland and rectum cancer. The part of living 5 or more years among the registered contingent in 2007 more than 50% was established by cancer of mouth and gullet, stomach, larynx, skin, lactic gland, uterus body and neck, ovary, bone and soft tissues. The high indicators on number of patients under observation at the end of the year were in Lensky (1115,4) district

and in Yakutsk (1244,3), the lowest indicators – in Verkhnevilyusky (296,5), Anabarsky (324,2) districts. 51,6% of patients lived 5 or more years among those who were registered at the end of 2007. The indicators exceeding the average republican ones were registered in 12 districts, among them Ust-Aldansky (60,2), Bulunsky (58,7), Verkhoyansky (58,3) districts and the town Yakutsk (57,6). But the indicators were not so high in Anabarsky (30,8), Ust-Maysky (35,2), Momsky (35,3) and other districts.

The lethality among the contingent under the observation shows an effect of treatment. Moreover, the lower the lethality coefficient is, the higher the index of contingent accumulation is. It means that the number of living after the treatment increases. In RS(Y) for 1995-2007 the accumulation index increased from 3,2 to 4,3%, the lethality decreased from 20,2 to 14,1%.

The growth of the accumulation index was found by cancer of thyroid, uterus body, leukemia. It was lower by cancer of mouth and gullet, esophagus, colon and bladder. The positive dynamics of accumulation index in the most districts shows the improvement of oncological help in the region. In 2007 by the average republican indicators (6,1) the highest accumulation index was in Yakutsk (9,1), Mirninsky (9,2) and Nerungrinsky (7,1) districts.

In the RS(Y) at the end of 2007 from 100 patients under the observation 14,1 died, that was 69,8% of the level in 1995 (20,2). The relation of the indicator of lethality in a year (2007) to the indicator of neglect (the 4^{th} stage) in 2006 is 1,3. That is like the average Russian indicator.

Conclusion. Thus, the results of the retrospective analysis of the state of oncological help in RS(Y) let us mention that the last 10 years are characterized of the improvement of qualitative indicators and specialized medical help, first of all owing to the growth of patients' part, ended surgical and combined methods of treatment.

The introduction into clinical practice of more progressive ways of treatment of oncological patients in the out-patient department brought to the growth of the accumulation index and lethality reduction. At the same time the problem of improvement of oncological help on the places of the initial medical section is very current today.

It is necessary to introduce our approved ways of the treatment of patients in the out-patient department, which allows us to increase the qualitative indicators of specialized help.

Таблица 1

Основные показатели состояния онкологической помощи населению РС (Я) в 1995-2007гг.

Локализация опухоли	Годы	Морфологическая верификация диагноза	Выявлено при профилактических осмотрах (% к новым больным)	Летальность на 1-м году жизни с момента установления диагноза	На 100 новых больных приходится умерших
Всего ЗН (С00-97)	1995 2007	62,7 73,2	5,8 10,0	55,2 46,3	75,9 70,0
Пищевод (С15)	1995 2007	58,7 76,8	3,2 0,0	71,3 75,0	96,3 100,0
Желудка (С16)	1995 2007	67,0 78,7	1,6 5,9	70,5 59,0	91,6 61,5
Ободочная кишка (С18)	1995 2007	56,1 75,8	0,0 3,2	53,5 43,4	79,4 73,7
Прямая кишка (С19-21)	1995 2007	82.3 88,6	2.0 9,3	46.3 39,8	70.6 56,8
Легкое (С33,34)	1995 2007	34.3 48,7	9.3 14,1	71.9 71,8	79.4 92,9
Кости и мягкие ткани	1995 2007	83,3 88,1	6,7 7,1	50,0 28,6	61,3 76,2
Кожа (С44,46.0)	1995 2007	100,0 96,7	19,2 22,2	7,1 2,9	13,8 13,3
Молочная железа (С50)	1995 2007	98,2 96,1	15,2 27,0	11,7 11,3	61,2 46,6
Шейка матки (С53)	1995 2007	98,2 95,0	16,4 20,0	27,6 18,2	62,1 51,2
Тела матки (С54)	1995 2007	100,0 96,1	3,7 3,8	14,8 11,9	53,6 69,2
Яичник (С56)	1995 2007	91,9 87,3	8,1 4,8	41,7 32,8	73,0 56,2
Простата (С61)	1995 2007	36,4 73,3	0,0 0,0	50,0 28,6	118,2 66,7
Мочевой пузырь (С67)	1995 2007	55,0 87,9	0,0 6,1	57,9 51,6	77,3 57,6
Щитовидная железа (С73)	1995 2007	90,9 95,3	13,6 19,1	14,7 6,7	26,1 23,3
Лимфомы С81-96)	1995 2007	100,0 88,9	0,0 7,4	43,2 33,3	69,4 31,5

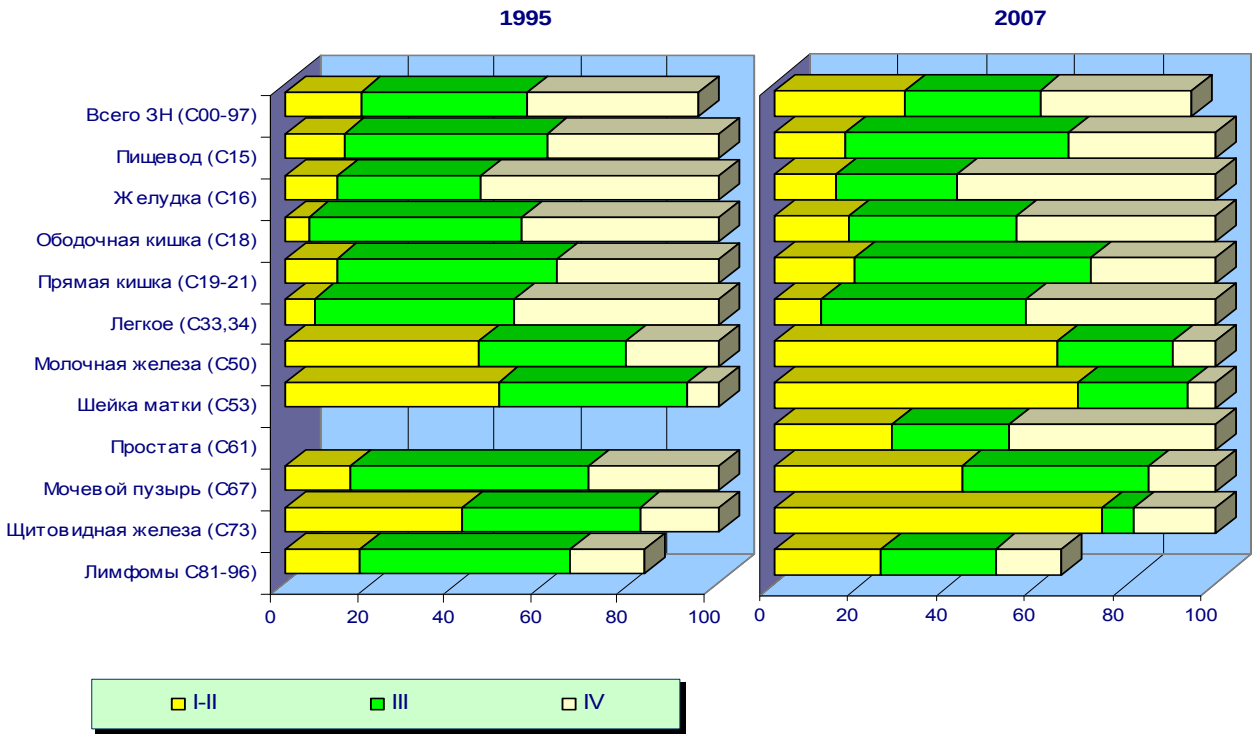

Рис. 1 Распределение вновь выявленных больных по стадиям процесса в 1995 и 2007гг. (в %)

Таблица 2

Лечение больных злокачественными новообразованиями в РС(Я) в1995 и 2007 гг.

Локализация опухоли	Год	абсолютное число	на 100 вновь выявленных больных	
			всего	с I-III ст.
ЗН – всего (С00-97)	1995	729	47,1	84,2
	2007	707	36,9	60,3
Пищевод (С15)	1995	50	39,7	65,8
	2007	7	10,1	66,7
Желудок (С16)	1995	52	28,1	62,6
	2007	42	22,3	41,5
Прямая кишка (19-21)	1995	22	43,1	68,7
	2007	47	53,4	71,6
Легкое (С33,34)	1995	107	34,3	64,8
	2007	14	4,5	57,1
Меланома кожи (С43)	1995	11	73,3	100,0
	2007	14	73,7	78,9
Молочная железа (С50)	1995	78	69,6	88,6
	2007	129	72,5	90,4
Шейки матки (С53)	1995	45	81,8	88,2
	2007	28	35,0	93,7
Тела матки (С54)	1995	18	66,7	72,0
	2007	24	92,3	96,1
Яичник (С56)	1995	34	91,9	100,0
	2007	26	54,2	83,3
Мочевой пузырь (С67)	1995	10	50,0	71,4
	2007	14	42,4	84,8
Гемобластозы (С81- 96)	1995	69	89,6	-
	2007	76	71,1	-

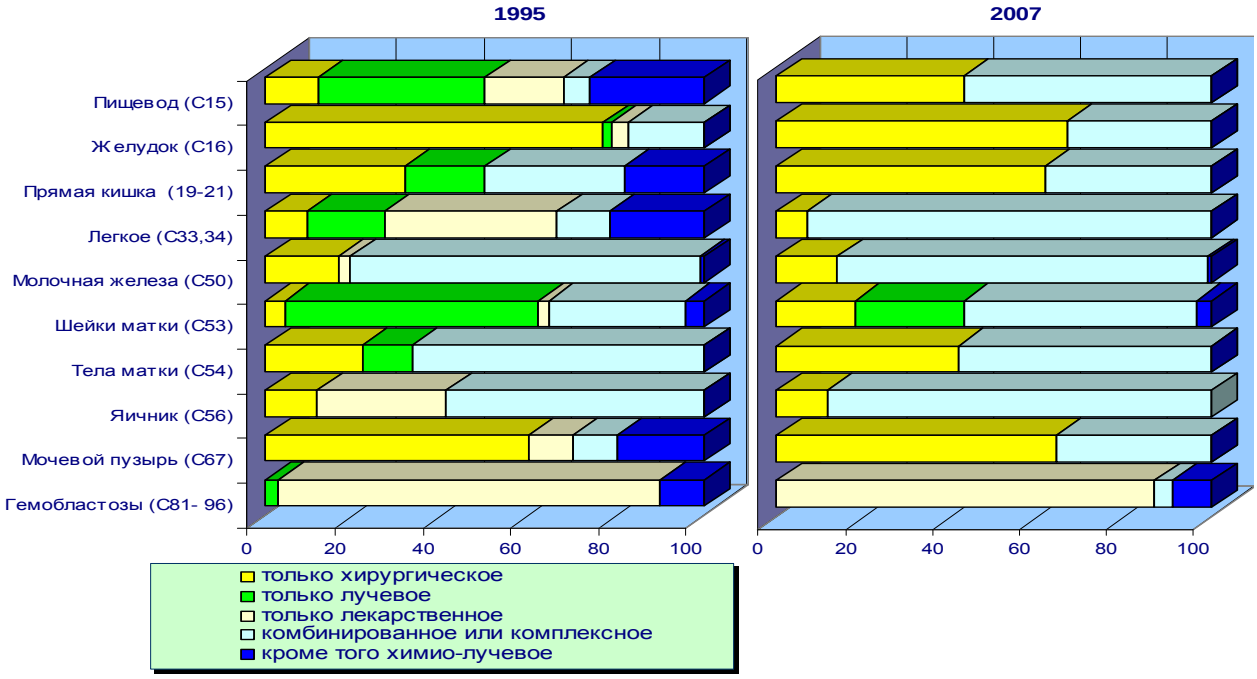

Рис. 2. Лечение больных злокачественными новообразованиями в РС(Я) в1995 -2007 гг.

Таблица 3.

Контингенты больных злокачественными новообразованиями, состоящих под наблюдением ЯРОД на конец 1995-2007 гг.

Локализация опухоли	Год	Находились под наблюдением на конец года		Из них: 5 и более лет		Летальность (%)
		Абс. число	на 100 тыс. населения	Абс. число	% к общ.. числу наблюдений	
ЗН - Всего (С00-97)	1995	5021	481,9	2443	48,7	20,2
	2007	8146	856,8	4205	51,6	14,1
Головы и шеи (01-14)	1995	176	16,9	93	52,8	19,3
	2007	210	22,1	123	58,6	14,3
пищевод (С15)	1995	116	11,1	23	19,8	52,8
	2007	96	10,1	30	31,3	41,8
Желудок (С16)	1995	390	37,4	162	41,5	32,3
	2007	574	60,4	299	52,1	23,1
Ободочная кишка (С18)	1995	176	16,9	73	41,5	22,1
	2007	369	38,8	175	47,4	15,9
Прямая кишка (19-21)	1995	136	13,1	42	30,9	20,9
	2007	320	33,7	110	34,4	13,5
Легкое (С33,34)	1995	337	32,3	75	22,3	45,1
	2007	414	43,5	155	37,4	40,1
Кости и мягкие ткани (С40-41)	1995	161	15,5	90	55,9	10,6
	2007	229	24,1	131	57,2	12,3
Меланома кожи (С43)	1995	78	7,5	47	60,3	7,1
	2007	121	12,7	69	57,0	9,0
Др. НО кожи (С44-46,0)	1995	403	38,7	264	65,5	1,0
	2007	488	51,3	172	35,2	2,4
Женская молочная железа (С50)	1995	901	172,7	490	54,4	7,3
	2007	1539	314,4	886	57,6	5,1

Шейка матки (С53)	1995	508	97,4	351	69,1	6,6
	2007	601	122,8	380	63,2	6,4
Тела матки (С54)	1995	152	29,1	71	46,7	14,1
	2007	280	57,2	163	58,2	6,0
Яичник (С56)	1995	238	45,6	135	56,7	10,2
	2007	305	62,3	192	63,0	8,1
Щитовидная железа (С73)	1995	162	15,5	75	46,3	3,6
	2007	516	54,3	307	59,5	1,9
Лимфомы (С81-85)	1995	188	18,0	88	46,8	11,7
	2007	329	34,6	187	56,8	4,9
Лейкемии (С91)	1995	110	10,6	36	32,7	22,5
	2007	253	26,6	102	40,3	8,0

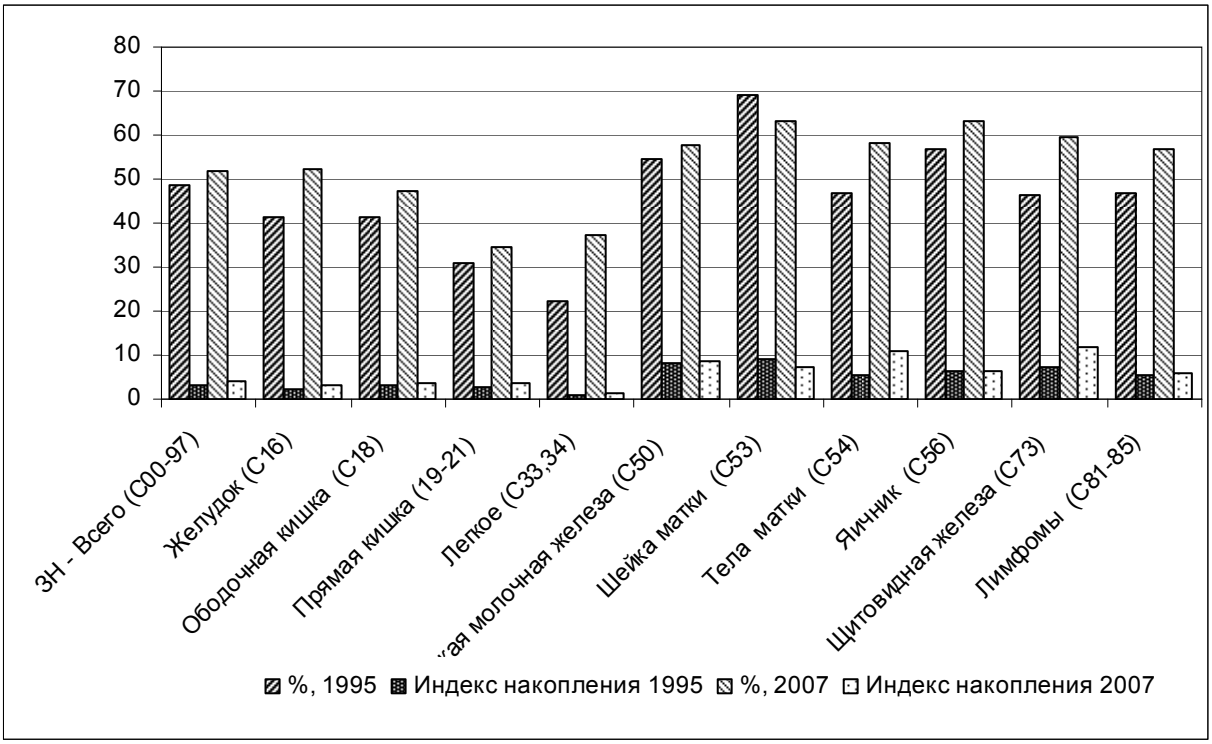

Рис. 3. Индекс накопления контингентов за 1995 и 2007 гг.

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