

**table t13.1**  
**morbidity among male liquidators by classes of diseases**  
**over the period 1993 to 1996 (per 100000 males)**

russia (rnmdr -Russian National Medical and Dosimetric Registry- as a whole)

	1993	1994	1995	1996	k <sub>1</sub>	k <sub>2</sub>
Infectious and parasitic diseases	620	664	765	782	1.02	1.10
neoplasms	651	679	718	713	0.99	1.03
MALIGNANT NEOPLASMS	178	197	236	226	0.96	1.08
Endocrine and metabolic diseases	5457	4318	3812	4637	1.22	1.02
Diseases of the blood and blood-forming organs	281	276	352	304	0.86	1.00
mental disorders	4615	3429	2783	2889	1.04	0.84
diseases of the nervous system and sense organs	10204	9044	9156	11041	1.21	1.12
DISEASES of the circulatory system	5233	5437	5858	7117	1.21	1.20
diseases of the respiratory system	17187	14809	14386	14215	0.99	0.94
diseases of the digestive system	8426	7912	7678	8613	1.12	1.06
diseases of the genitourinary system	1754	1825	2017	2383	1.18	1.19
diseases of the skin and subcutaneous tissue	1125	1389	1571	1552	0.99	1.10
diseases of musculoskeletal system and connective tissue	8024	6622	6550	7012	1.07	0.99
Symptoms and inaccurately specified status	371	341	311	307	0.99	0.92
Injury and poisoning	3312	3739	3720	3705	1.00	1.02
other diseases	38	53	14	37	2.64	1.04
Total	67416	60631	59802	65392	1.09	1.03

k<sub>1</sub> - ratio of incidence rates of 1996 to those of 1995;

k<sub>2</sub> - ratio of incidence rates of 1996 to mean incidence rates over the period 1993 to 1996.

**table t13.2**  
**morbidity among male liquidators by classes of diseases**  
**over the period 1993 to 1996 (per 100000 males)**

Russia except for ministerial registries (the RNMDR as a whole except for ministerial subregistries)

	1993	1994	1995	1996	k <sub>1</sub>	k <sub>2</sub>	k <sub>3</sub>
Infectious and parasitic diseases	553	607	704	766	1.09	0.98	1.17
neoplasms	599	618	661	684	1.03	0.96	1.07
malignant neoplasms	179	178	216	216	1.00	0.96	1.10
Endocrine and metabolic diseases	5665	4520	4014	4772	1.19	1.03	1.01
Diseases of the blood and blood-forming organs	303	310	374	320	0.86	1.05	0.98
mental disorders	4780	3634	2932	2960	1.01	1.02	0.83
diseases of the nervous system and sense organs	10976	9860	9789	11564	1.18	1.05	1.10
DISEASES of the circulatory system	5195	5613	5928	7248	1.22	1.02	1.21
diseases of the respiratory system	16352	14108	13507	13759	1.02	0.97	0.95
diseases of the digestive system	8579	8277	7976	8793	1.10	1.02	1.05
diseases of the genitourinary system	1594	1886	2024	2396	1.18	1.01	1.21
diseases of the skin and subcutaneous tissue	1072	1353	1517	1493	0.98	0.96	1.10
diseases of musculoskeletal system and connective tissue	8356	6930	6742	7173	1.06	1.02	0.98
Symptoms and inaccurately specified status	359	346	327	313	0.96	1.02	0.93
Injury and poisoning	3140	3581	3534	3576	1.01	0.97	1.03
other diseases	36	56	15	34	2.27	0.92	0.96
Total	67676	61794	60158	65934	1.10	1.01	1.03

k<sub>1</sub> - ratio of incidence rates of 1996 to those of 1995;

k<sub>2</sub> - ratio of incidence rates over an individual region (ministerial registry) to the relevant rate over Russia (RNMDR as a whole) of 1996;

k<sub>3</sub> - ratio of incidence rates of 1996 to mean incidence rates over the period 1993 to 1996.

**table t13.3**  
**morbidity among male liquidators by classes of diseases**  
**over the period 1993 to 1996 (per 100000 males)**

minatom

	1993	1994	1995	1996	k <sub>1</sub>	k <sub>2</sub>	k <sub>3</sub>
Infectious and parasitic diseases	1076	986	1273	945	0.74	1.21	0.88
neoplasms	930	986	1108	1070	0.97	1.50	1.05
malignant neoplasms	215	352	398	347	0.87	1.54	1.06
Endocrine and metabolic diseases	3961	2529	1654	2211	1.34	0.48	0.85
Diseases of the blood and blood-	146	78	181	166	0.92	0.55	1.16

forming organs							
mental disorders	3522	1871	1533	1668	1.09	0.58	0.78
diseases of the nervous system and sense organs	6545	4597	4600	6091	1.32	0.55	1.12
DISEASES of the circulatory system	4323	3445	4210	5257	1.25	0.74	1.22
diseases of the respiratory system	22676	19844	21010	20375	0.97	1.43	0.97
diseases of the digestive system	6312	4816	4973	6550	1.32	0.76	1.16
diseases of the genitourinary system	2428	1276	1862	2211	1.19	0.93	1.14
diseases of the skin and subcutaneous tissue	1472	1683	2079	2392	1.15	1.54	1.25
diseases of musculoskeletal system and connective tissue	5977	4644	4912	5605	1.14	0.80	1.06
Symptoms and inaccurately specified status	266	281	173	292	1.69	0.95	1.15
Injury and poisoning	5003	5325	5423	5368	0.99	1.45	1.02
other diseases	60	31	8	83	10.38	2.24	1.82
Total	64817	52486	55111	60417	1.10	0.92	1.04

$k_1$  - ratio of incidence rates of 1996 to those of 1995;

$k_2$  - ratio of incidence rates over an individual region (ministerial registry) to the relevant rate over Russia (RNMDR as a whole) of 1996;

$k_3$  - ratio of incidence rates of 1996 to mean incidence rates over the period 1993 to 1996.

**table t13.4**  
**morbidity among male liquidators by classes of diseases**  
**over the period 1993 to 1996 (per 100000 males)**

### North region

	1993	1994	1995	1996	$k_1$	$k_2$	$k_3$
Infectious and parasitic diseases	700	765	1014	1171	1.15	1.50	1.28
neoplasms	817	519	827	683	0.83	0.96	0.96
MALIGNANT NEOPLASMS	379	191	133	195	1.47	0.86	0.87
Endocrine and metabolic diseases	12372	11396	3843	4653	1.21	1.00	0.58
Diseases of the blood and blood-forming organs	262	491	320	325	1.02	1.07	0.93
mental disorders	4026	3088	2241	1334	0.60	0.46	0.50
diseases of the nervous system and sense organs	11292	10522	9340	9762	1.05	0.88	0.95

DISEASES of the circulatory system	7440	6094	6805	6345	0.93	0.89	0.95
diseases of the respiratory system	19346	19622	22444	18874	0.84	1.33	0.94
diseases of the digestive system	10067	10084	7392	7777	1.05	0.90	0.88
diseases of the genitourinary system	2246	2459	2668	2928	1.10	1.23	1.14
diseases of the skin and subcutaneous tissue	1400	2541	2882	2993	1.04	1.93	1.22
diseases of musculoskeletal system and connective tissue	11146	10330	7499	7679	1.02	1.10	0.84
Symptoms and inaccurately specified status	233	327	373	97	0.26	0.32	0.38
Injury and poisoning	3939	5957	6885	7028	1.02	1.90	1.18
other diseases	29	109	0	32	-	0.86	0.75
Total	85585	84558	74753	71949	0.96	1.10	0.91

$k_1$  - ratio of incidence rates of 1996 to those of 1995;

$k_2$  - ratio of incidence rates over an individual region (ministerial registry) to the relevant rate over Russia (RNMDR as a whole) of 1996;

$k_3$  - ratio of incidence rates of 1996 to mean incidence rates over the period 1993 to 1996.

**table t13.5**  
**morbidity among male liquidators by classes of diseases**  
**over the period 1993 to 1996 (per 100000 males)**

### north-western region

	1993	1994	1995	1996	$k_1$	$k_2$	$k_3$
Infectious and parasitic diseases	638	483	567	585	1.03	0.75	1.03
neoplasms	547	744	819	946	1.16	1.33	1.24
MALIGNANT NEOPLASMS	365	260	267	270	1.01	1.19	0.93
Endocrine and metabolic diseases	2829	1749	1528	1937	1.27	0.42	0.96
Diseases of the blood and blood-forming organs	273	316	204	135	0.66	0.44	0.58
mental disorders	3395	3796	2520	2718	1.08	0.94	0.87
diseases of the nervous system and sense organs	6699	5918	7168	11656	1.63	1.06	1.48
DISEASES of the circulatory system	7283	8114	8901	11521	1.29	1.62	1.29
diseases of the respiratory system	14877	11390	10382	12978	1.25	0.91	1.05
diseases of the digestive system	5166	5229	4411	5693	1.29	0.66	1.11
diseases of the genitourinary system	1588	2158	2111	3515	1.67	1.48	1.50
diseases of the skin and subcutaneous	1405	1526	1213	1442	1.19	0.93	1.03

tissue							
diseases of musculoskeletal system and connective tissue	6516	4913	5656	6564	1.16	0.94	1.11
Symptoms and inaccurately specified status	419	297	204	210	1.03	0.68	0.74
Injury and poisoning	3450	3647	2631	2779	1.06	0.75	0.89
other diseases	18	0	0	0	-	-	-
Total	55147	50344	48400	62776	1.30	0.96	1.16

$k_1$  - ratio of incidence rates of 1996 to those of 1995;

$k_2$  - ratio of incidence rates over an individual region (ministerial registry) to the relevant rate over Russia (RNMDR as a whole) of 1996;

$k_3$  - ratio of incidence rates of 1996 to mean incidence rates over the period 1993 to 1996.

**table t13.6**  
**morbidity among male liquidators by classes of diseases**  
**over the period 1993 to 1996 (per 100000 males)**

### Central region

	1993	1994	1995	1996	$k_1$	$k_2$	$k_3$
Infectious and parasitic diseases	522	625	615	623	1.01	0.80	1.04
neoplasms	615	683	691	757	1.10	1.06	1.10
MALIGNANT NEOPLASMS	107	127	212	275	1.30	1.22	1.53
Endocrine and metabolic diseases	7778	7102	6561	6278	0.96	1.35	0.91
Diseases of the blood and blood-forming organs	372	255	396	442	1.12	1.45	1.21
mental disorders	3585	2816	3044	3997	1.31	1.38	1.19
diseases of the nervous system and sense organs	9889	10462	9408	12515	1.33	1.13	1.18
DISEASES of the circulatory system	4565	5767	5186	7485	1.44	1.05	1.30
diseases of the respiratory system	19987	18427	16996	15279	0.90	1.07	0.86
diseases of the digestive system	10018	10219	9278	9390	1.01	1.09	0.97
diseases of the genitourinary system	1538	1807	2018	2079	1.03	0.87	1.12
diseases of the skin and subcutaneous tissue	1159	1494	1553	1629	1.05	1.05	1.12
diseases of musculoskeletal system and connective tissue	7091	6853	7054	8659	1.23	1.23	1.17
Symptoms and inaccurately specified	472	498	403	442	1.10	1.44	0.97

status							
Injury and poisoning	3721	4132	4324	4151	0.96	1.12	1.02
other diseases	21	63	6	26	4.33	0.70	0.90
Total	71489	71371	67622	73827	1.09	1.13	1.04

$k_1$  - ratio of incidence rates of 1996 to those of 1995;

$k_2$  - ratio of incidence rates over an individual region (ministerial registry) to the relevant rate over Russia (RNMDR as a whole) of 1996;

$k_3$  - ratio of incidence rates of 1996 to mean incidence rates over the period 1993 to 1996.

**table t13.7**  
**morbidity among male liquidators by classes of diseases**  
**over the period 1993 to 1996 (per 100000 males)**

**volgo-vyatsky region**

	1993	1994	1995	1996	$k_1$	$k_2$	$k_3$
Infectious and parasitic diseases	508	780	720	971	1.35	1.24	1.30
neoplasms	343	468	429	548	1.28	0.77	1.23
MALIGNANT NEOPLASMS	104	234	221	149	0.67	0.66	0.84
Endocrine and metabolic diseases	717	2574	2590	5020	1.94	1.08	1.84
Diseases of the blood and blood-forming organs	104	218	180	261	1.45	0.86	1.37
mental disorders	1435	3525	2715	3102	1.14	1.07	1.15
diseases of the nervous system and sense organs	4216	10374	9558	12046	1.26	1.09	1.33
DISEASES of the circulatory system	1854	5023	5250	7773	1.48	1.09	1.56
diseases of the respiratory system	13651	16864	14932	15684	1.05	1.10	1.03
diseases of the digestive system	3693	8221	7604	10614	1.40	1.23	1.41
diseases of the genitourinary system	927	1606	1496	1868	1.25	0.78	1.27
diseases of the skin and subcutaneous tissue	777	1201	1399	1345	0.96	0.87	1.14
diseases of musculoskeletal system and connective tissue	4754	8283	7868	8097	1.03	1.15	1.12
Symptoms and inaccurately specified status	134	390	249	186	0.75	0.61	0.78
Injury and poisoning	3827	5288	4723	4136	0.88	1.12	0.92
other diseases	0	31	0	12	-	0.32	1.12

Total	37021	64898	59828	71820	1.20	1.10	1.23
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$k_1$  - ratio of incidence rates of 1996 to those of 1995;

$k_2$  - ratio of incidence rates over an individual region (ministerial registry) to the relevant rate over Russia (RNMDR as a whole) of 1996;

$k_3$  - ratio of incidence rates of 1996 to mean incidence rates over the period 1993 to 1996.

**table t13.8**  
**morbidity among male liquidators by classes of diseases**  
**over the period 1993 to 1996 (per 100000 males)**

**centralno-chernozemny region**

	1993	1994	1995	1996	$k_1$	$k_2$	$k_3$
Infectious and parasitic diseases	443	303	405	350	0.86	0.45	0.93
neoplasms	1664	707	570	457	0.80	0.64	0.54
MALIGNANT NEOPLASMS	332	134	165	122	0.74	0.54	0.65
Endocrine and metabolic diseases	10341	5256	4789	5371	1.12	1.16	0.83
Diseases of the blood and blood-forming organs	355	84	390	335	0.86	1.10	1.15
mental disorders	9631	5222	4519	2502	0.55	0.87	0.46
diseases of the nervous system and sense organs	9853	7008	7927	9171	1.16	0.83	1.08
DISEASES of the circulatory system	5947	3638	4879	5768	1.18	0.81	1.14
diseases of the respiratory system	16932	9956	8528	9140	1.07	0.64	0.82
diseases of the digestive system	11784	7294	8513	7446	0.87	0.86	0.85
diseases of the genitourinary system	2308	1482	1426	1861	1.31	0.78	1.05
diseases of the skin and subcutaneous tissue	843	1179	1021	900	0.88	0.58	0.91
diseases of musculoskeletal system and connective tissue	9431	6233	5825	5844	1.00	0.83	0.86
Symptoms and inaccurately specified status	577	438	300	274	0.91	0.89	0.69
Injury and poisoning	3018	3032	2642	2731	1.03	0.74	0.96
other diseases	66	0	15	45	3.00	1.22	1.43
Total	83355	51920	51846	52235	1.01	0.80	0.87

$k_1$  - ratio of incidence rates of 1996 to those of 1995;

$k_2$  - ratio of incidence rates over an individual region (ministerial registry) to the relevant rate over Russia (RNMDR as a whole) of 1996;

$k_3$  - ratio of incidence rates of 1996 to mean incidence rates over the period 1993 to 1996.

**table t13.9**  
**morbidity among male liquidators by classes of diseases**  
**over the period 1993 to 1996 (per 100000 males)**

**povolzhsky region**

	1993	1994	1995	1996	$k_1$	$k_2$	$k_3$
Infectious and parasitic diseases	567	716	816	831	1.02	1.06	1.13
neoplasms	482	795	886	808	0.91	1.13	1.09
MALIGNANT NEOPLASMS	194	270	233	274	1.18	1.21	1.13
Endocrine and metabolic diseases	2387	5045	5024	6948	1.38	1.50	1.43
Diseases of the blood and blood-forming organs	419	557	466	366	0.79	1.20	0.81
mental disorders	2861	3931	3072	2669	0.87	0.92	0.85
diseases of the nervous system and sense organs	6757	11650	12904	13645	1.06	1.24	1.21
DISEASES of the circulatory system	4704	6804	7552	8878	1.18	1.25	1.27
diseases of the respiratory system	14612	17030	15906	13904	0.87	0.98	0.91
diseases of the digestive system	4837	9302	10376	11303	1.09	1.31	1.26
diseases of the genitourinary system	1228	2116	2302	2806	1.22	1.18	1.33
diseases of the skin and subcutaneous tissue	940	1400	1773	1334	0.75	0.86	0.98
diseases of musculoskeletal system and connective tissue	6369	9374	9264	8817	0.95	1.26	1.04
Symptoms and inaccurately specified status	139	270	373	549	1.47	1.79	1.65
Injury and poisoning	3001	3565	3476	3211	0.92	0.87	0.97
other diseases	0	23	15	7	0.47	0.19	0.62
Total	49397	72648	74338	76172	1.02	1.16	1.12