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Mental health care in Latvia 2009

Thematic report

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J. Misins, S. Rozite, I. Pudule, D. Grinberga, S. Karlsone, Z. Baltane.

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Preface

The Centre of Health Economics presents for readers already the 10th Statistical Yearbook with comprehensive statistical information on mental health care in Latvia, as well as a short evaluation of the provided data. The titles of reports have been changed over the course of time, but the conceptual model remained almost the same. In our anniversary issue we have tried to broaden the view to mental health, not only discussing the prevalence and treatment options of mental and behavioural disorders, but also providing the insights into population study results and situation appraisal. We tried to use as different information sources as possible available to the Centre of Health Economics, to provide comprehensive evaluation of the present situation. The use of these sources would not be possible without information provided by specialists and health care institutions, so we express our gratitude for collaboration and support in data collection to all the doctors and health care workers, health care institutions, the Health Payment Centre etc. We hope that the provided information in Statistical Yearbook will be useful for your further work!

Yours respectfully,

Daiga Behmane

Director of The Centre of Health Economics

List of abbreviations

Register – Register of patients suffering from certain diseases on patients with mental and behavioural disorders

Yearbook – Statistical Yearbook „Mental health care in Latvia in 2009"

ICD-10 – The 10th revision of the International Classification of Diseases of the World Health Organization

PREDA – Patient Register Data – unified data system for Register of patients suffering from certain diseases

LPA – Latvian Psychiatric Association

PHA – Public Health Agency

WHO – The World Health Organization

PYLL –Potential Years of Life Lost

HBSC –The Health Behaviour in School-aged Children study

HPC – The Health Payment Centre

OHSPS – Outpatient Healthcare Services Payment System

CHE – The Centre of Health Economics

List of charts and tables

[1] All rates in tables are calculated per average number of inhabitants in respective year (excluding registered patients per 100 000 inhabitants which have been calculated per number of permanent residents in Latvia by the end of year).

1. Mental health of the population

Mentally healthy society is an important condition to create a stable and safe economical, social, working and living environment, to promote prosperity. Our individual mental health, sometimes more than the physical one, is influenced by social, economical and environmental factors, lifestyle, habits and knowledge[2].

Mental and behavioural disorders are widely distributed across the world creating a substantial burden. People with these disorders are often socially rejected, have a lower quality of life and higher mortality. There is an additional remarkable increase in health care and social expenses.

For example, WHO's calculations for 2002 state that 154 million people worldwide suffer from depression, 25 million people have schizophrenia, but 24 million people are affected by Alzheimer's Disease and other types of dementia[3].

Three factors play the crucial role in development of psychopathology: biological predisposition (heredity, light cerebral organic impairment), hazardous exogenous factors (with impact on psychic development after birth) and acquired negative life experience (memories, emotions, way of thinking, identity) which create a certain self-image and perception of the surrounding world. In case of mental disorders any of the components may have predominance, but overall there is an interaction between all factors[4].

On average, one in four patients who seek help in health care services has at least one mental and/or neurological disorder, but the majority of them remain undiagnosed and untreated. Mental disorders have an impact on the progress of different chronic diseases (oncological and cardiovascular diseases, diabetes mellitus, HIV/AIDS), and vice versa – chronic diseases have a negative influence on person's mental health. Untreated mental and behavioural disorders can create different problems, most commonly related with noncompliance to treatment, decreased

[2] Anete Erdmane, Ieva Leimane-Veldmeijere, Rinalds Mucins, Uldis Veits. *Report on introduction of the World Health Organization's Mental Health Declaration and Action Plan in Latvia.* Resource centre for people with mental disorders „ZELDA", Riga 2009.

[3] WHO. *The bare facts*. http://www.who.int/mental_health/en/

[4] *Pychiatry in Latvia* http://www.psihiatrija.lv/article/articlestatic/35/1/2/

immunity etc. Majority of these disorders have cost-effective treatment methods that help most patients control their disease if used properly[2].

The insight into population mental health status of the state is provided by population study data as well as by evaluation of data on first time and previously registered patients in the Register of patients suffering from certain diseases on patients with mental and behavioural disorders (hereinafter – Register). Important information is supplied also by data on suicide rates.

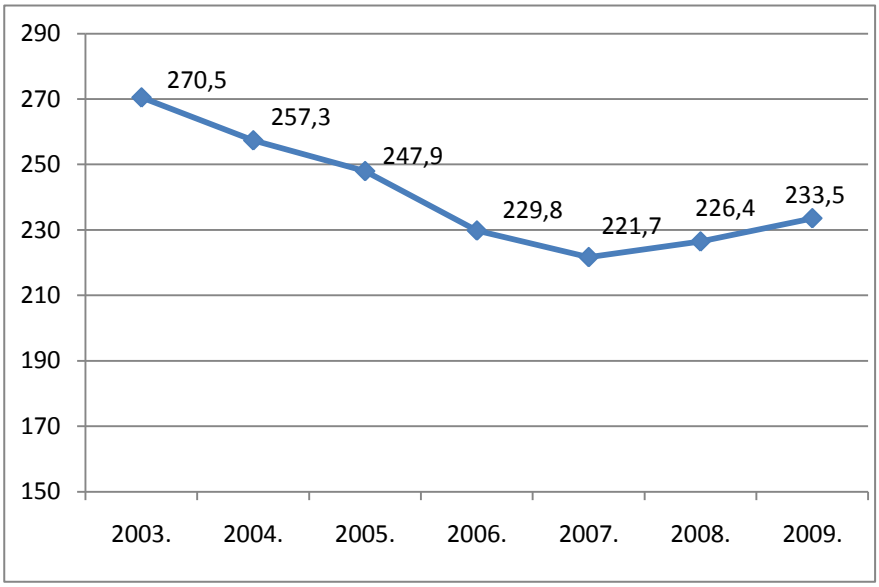
1.1. First time registered patients in Register

During Register data quality improvement in 2009 the information on population mental health indicators in Latvia was updated, consequently, disease incidence and prevalence data are slightly different when compared to the previous report in 2008[5].

Data show a slight increase in first time registered patients with mental and behavioural disorders from 2007 to 2009 (see Chart 1). The increase in absolute numbers during this period is 219 patients (5045 patients in 2007 and 5264 patients in 2009). It must be kept in mind that only data on patients with mental and behavioural disorders (F00-F98 in ICD-10) were processed, excluding information on patients with disorders related to use of psychoactive substances (F10-F19 in ICD-10), because these patients are registered in a separate database and analyzed in special reports on prevalence of addiction substance abuse in Latvia.

[5] Maris Taube, Aija Pelne, Toms Pulmanis, Marcis Trapencieris, Jana Lepiksone, Santa Rozite. *Mental health in Latvia in 2008.* http://www.vec.gov.lv/docs/new2009/2009.12.29-02.pdf

Chart 1. First time registered patients with mental and behavioural disorders (per 100 000 inhabitants), Latvia (2003 - 2009)

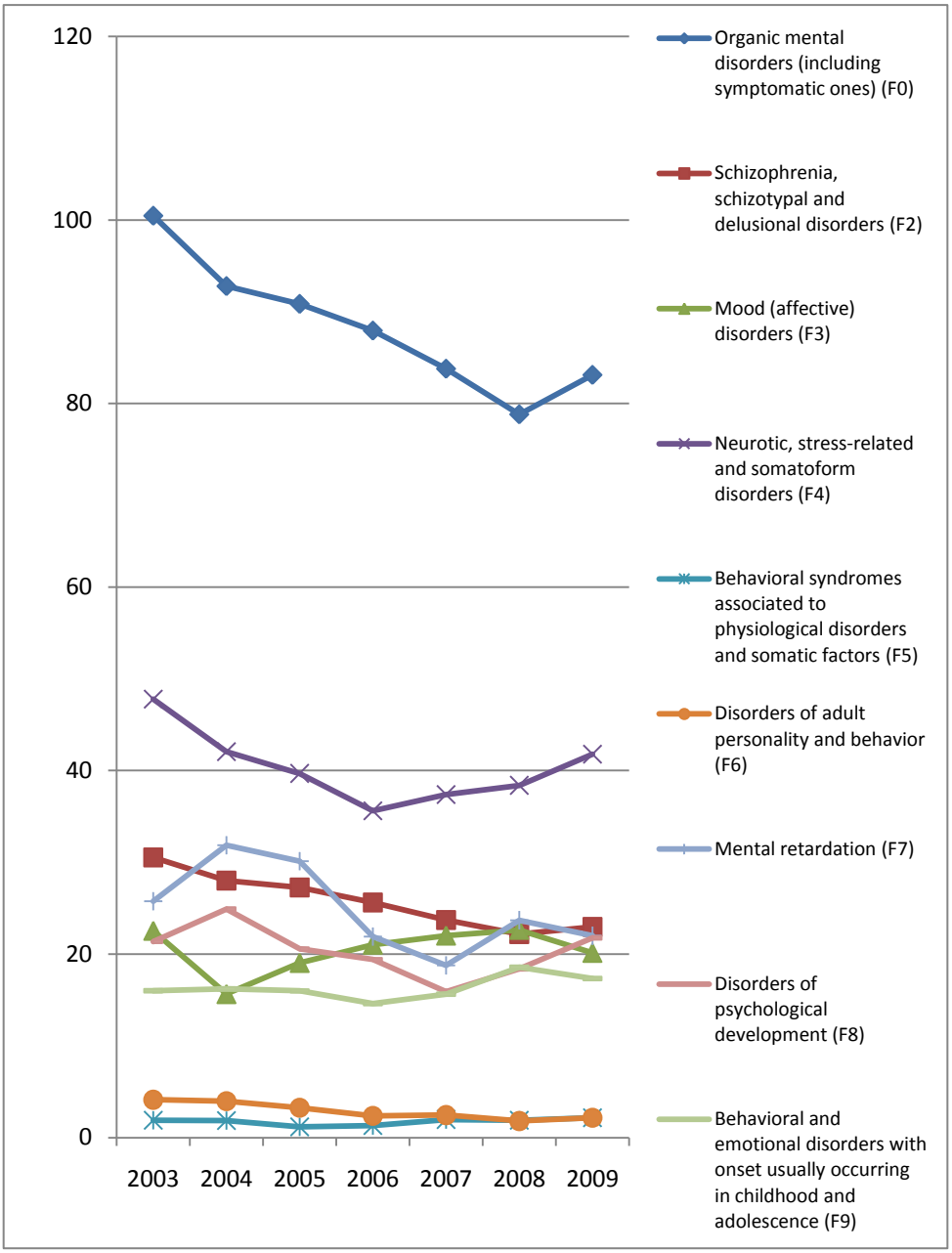


Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

Total incidence rate of mental and behavioural disorders fluctuate depending on increase or decrease in incidence rate of separate disorders what, subsequently, changes the total incidence rate. More detailed incidence data and breakdown by diagnoses in the course of time is shown in Chart 2.

Evidently, mental and behavioural disorders with observable trend towards an increase are organic mental disorders, including symptomatic ones (from 78,8 patients per 100 000 inhabitants in 2008 to 83,1 patients per 100 000 inhabitants in 2009), neurotic, stress-related and somatoform disorders (from 38,4 patients per 100 000 inhabitants in 2008 to 41,8 patients per 100 000 inhabitants in 2009), as well as disorders of psychological development (from 18,4 patients per 100 000 inhabitants in 2008 to 21,8 patients per 100 000 inhabitants in 2009).

Chart 2. First time registered patients with mental and behavioural disorders (breakdown by diagnoses, per 100 000 inhabitants), Latvia (2003 - 2009)



Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

When first time registered patients in Register in all age groups are analyzed, (see Table 1), the highest incidence and prevalence rates in 2009 can be observed in the 5-9 and 10-14 year age groups and in people aged 70 years or older. Besides, the rates in the 5-9 and 10-14 year age groups exceed average incidence and prevalence data of all the other age groups even more than twice.

Table 1. First time registered patients with mental and behavioural disorders (breakdown by age groups), Latvia (2009)

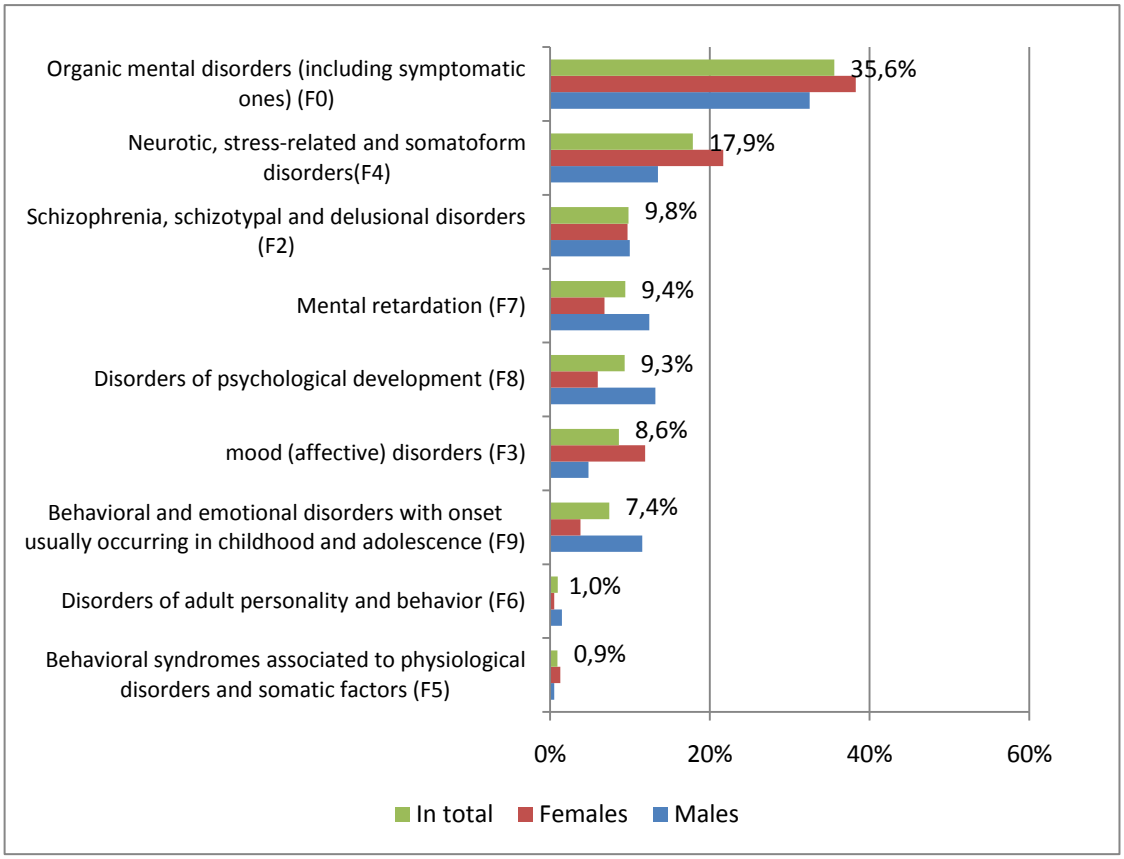
Age group	Males	Females	In total	Per 100 000 inhabitants
0-4	245	119	364	321,7
5-9	440	195	633	636,0
10-14	314	165	479	493,6
15-19	188	175	363	242,0
20-24	131	107	238	129,4
25-29	114	105	219	128,5
30-34	103	120	223	142,5
35-39	127	113	240	151,0
40-44	91	150	241	157,0
45-49	104	185	289	171,7
50-54	111	184	295	185,1
55-59	117	166	283	204,9
60-64	78	134	212	183,3
65-69	62	172	234	197,4
>70	222	728	951	349,6
In total	2447	2818	5264	233,5

Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

Breakdown of patients by diagnoses (in percent) show that the largest proportion of first time registered patients in 2009 is composed of patients with organic mental disorders (F0) (35.6%), neurotic, stress-related and somatoform disorders (F4) (17.9%), as well as schizophrenia, schizotypal and delusional disorders (F2) (9.8%). No significant change in breakdown of patients by diagnoses (in percent) is seen, when compared to data in 2008.

Breakdown of patients by gender reveals a larger proportion of men among patients registered with disorders from F9, F8 and F7 groups, similar gender distribution is seen in patients from F6, F5 and F2 groups, but a higher proportion of women was among those with disorders from F4, F3 and F0 groups.

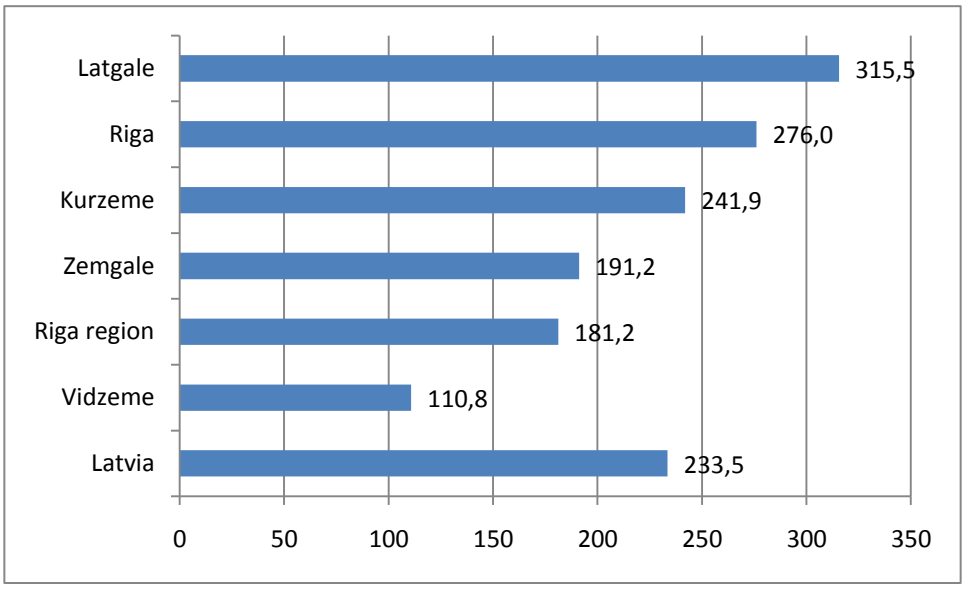
Chart 3. First time registered patients with mental and behavioural disorders (breakdown by diagnoses and gender in percent), Latvia (2009)



Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

Breakdown of first time registered patients in Register by statistical region (see Chart 4 and Table 2) shows the decrease in incidence rate below the national average in Riga region, Vidzeme and Zemgale in 2009, but an increased rate is observed in other regions of Latvia. The peak incidence rate is registered in Latgale (315,5 first time patients per 100 000 inhabitants). The regional differences are influenced by development of mental care services and their accessibility in regions, by slightly different diagnostic approach in different health care institutions, as well as by other conditions (for example, socio-economic, socio-demographic ones).

Chart 4. First time registered patients with mental and behavioural disorders (breakdown by statistical regions per 100 000 inhabitants), Latvia (2009)



Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

Table 2. First time registered patients with mental and behavioural disorders (breakdown by statistical regions and diagnoses), Latvia (2009)

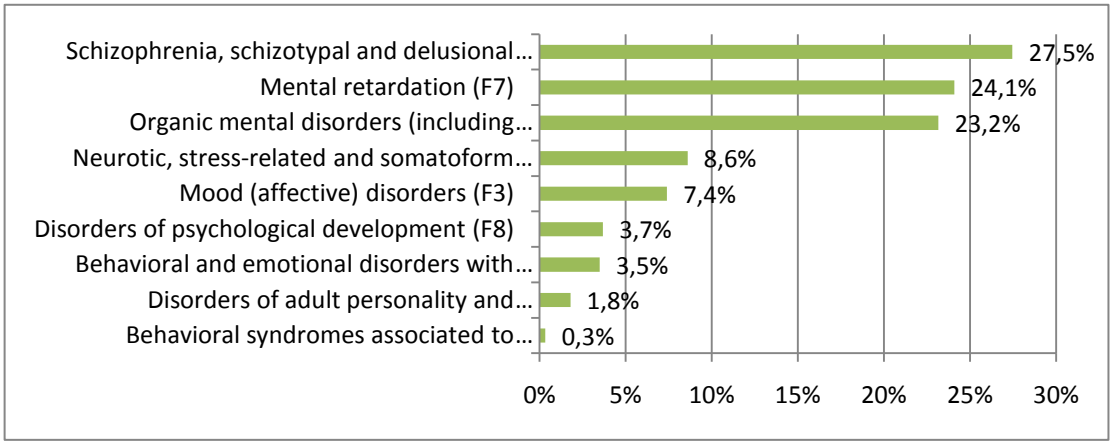
	F0	F2	F3	F4	F5	F6	F7	F8	F9	In total
Latvia	**1874**	**518**	**454**	**942**	**49**	**49**	**496**	**491**	**391**	**5264**
Kurzeme	212	52	79	175	6	7	112	43	41	**727**
Latgale	468	77	66	163	7	15	88	108	86	**1078**
Riga	755	191	138	403	26	17	57	203	169	**1959**
Riga region	205	89	80	105	4	4	96	80	39	**702**
Vidzeme	58	52	42	20	2	1	68	9	8	**260**
Zemgale	176	57	49	75	4	5	75	48	48	**537**
Not specified	0	0	0	1	0	0	0	0	0	**1**

Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

1.2. Prevalence of mental and behavioural disorders

There were 69716 individuals with mental and behavioural disorders registered in Register in Latvia in 2009. Evidently, the highest proportion of registered patients (~75%) suffer from such serious, long-term and chronic diseases as schizophrenia, schizotypal and delusional disorders (27,5%), mental retardation (24,1%) and organic mental disorders, including symptomatic ones (23,2%) (see Chart 5). Patient breakdown analysis by diagnoses (in percent) reveals no significant changes when compared to rates of year 2008.

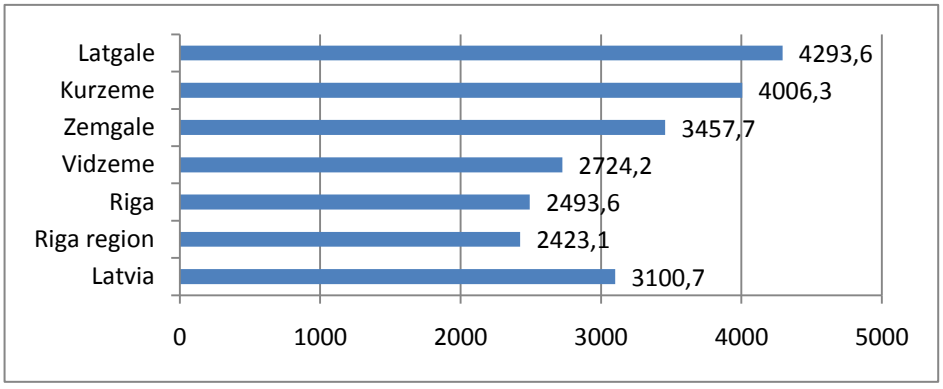
Chart 5. Registered patients with mental and behavioural disorders (breakdown by diagnoses in percent), Latvia (2009)



Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

Breakdown of previously registered patients in Register by statistical region (see Chart 6 and Table 3) shows the decrease in prevalence rate below the national average in Riga, Riga region and Vidzeme in 2009, but an increased rate is observed in Zemgale, Latgale and Kurzeme. Like in first time registered patients, the peak prevalence rate is registered in Latgale (4293,6 per 100 000 inhabitants).

Chart 6. Registered patients with mental and behavioural disorders (breakdown by statistical regions per 100 000 inhabitants), Latvia (2009)



Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

Table 3. Registered patients with mental and behavioural disorders (breakdown by statistical regions and diagnoses), Latvia (2009)

	F0	F2	F3	F4	F5	F6	F7	F8	F9	**In total**
Latvia	**16141**	**19145**	**5160**	**5993**	**235**	**1253**	**16793**	**2565**	**2431**	**69716**
Kurzeme	2327	2103	1031	1700	47	277	3706	356	452	**11999**
Latgale	4085	3041	1037	1428	55	598	3153	635	557	**14589**
Riga	4418	7371	1166	1415	84	98	1810	675	578	**17615**
Riga region	2031	2787	836	652	14	92	2541	240	240	**9433**
Vidzeme	1223	1738	534	243	9	72	2281	124	139	**6363**
Zemgale	2043	2092	554	551	26	115	3296	533	465	**9675**
Not specified	14	13	2	4	0	1	6	2	0	**42**

Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

Table 4. Breakdown by diagnoses of first time and previously registered patients (2009)

Diagnosis	Code	2009	
		Previously reg.	First time reg.
Dementia in Alzheimer's disease	F00	122	40
Vascular dementia	F01	1271	393
Dementia in other diseases classified elsewhere	F02	2326	188
Unspecified dementia	F03	121	18
Organic amnesic syndrome, not induced by alcohol and other psychoactive substances	F04	51	6
Delirium, not induced by alcohol and other psychoactive substances	F05	211	53
Other mental disorders due to brain damage and dysfunction and to physical disease	F06	5337	736
Organic hallucinosis	*F06.0*	382	69
Organic catatonic disorder	*F06.1*	6	1
Organic delusional [schizophrenia-like] disorder	*F06.2*	651	79
Organic mood [affective] disorders	*F06.3*	1475	215
Personality and behavioural disorders due to brain disease, damage and dysfunction	F07	6697	442
Organic personality disorder	*F07.0*	3906	212
Schizophrenia	F20	16110	301
Paranoid schizophrenia	*F20.0*	11887	238
Hebephrenic schizophrenia	*F20.1*	104	0
Catatonic schizophrenia	*F20.2*	69	1
Undifferentiated schizophrenia	*F20.3*	676	9
Post-schizophrenic depression	*F20.4*	105	0
Residual schizophrenia	*F20.5*	629	4
Simple schizophrenia	*F20.6*	798	12
Other schizophrenia	*F20.8*	1769	32
Schizotypal disorder	F21	1030	33
Persistent delusional disorders	F22	246	13

Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

Table 4. (continuation) Breakdown by diagnoses of first time and previously registered patients (2009)

Acute and transient psychotic disorders	F23	956	148
Schizoaffective disorders	F25	783	18
Manic episode	F30	39	3
Bipolar affective disorder	F31	497	15
Depressive episode	F32	1607	202
Mild depressive episode	*F32.0*	457	42
Moderate depressive episode	*F32.1*	1012	149
Severe depressive episode without psychotic symptoms	*F32.2*	42	3
Severe depressive episode with psychotic symptoms	*F32.3*	43	2
Recurrent depressive disorder	F33	2457	204
Recurrent depressive disorder, current episode mild	*F33.0*	278	13
Recurrent depressive disorder, current episode moderate	*F33.1*	1969	178
Recurrent depressive disorder, current episode severe without psychotic symptoms	*F33.2*	52	5
Recurrent depressive disorder, current episode severe with psychotic symptoms	*F33.3*	52	3
Persistent mood [affective] disorders	F34	520	24
Phobic anxiety disorders	F40	146	17
Other anxiety disorders	F41	811	121
Panic disorder [episodic paroxysmal anxiety]	*F41.0*	186	35
Obsessive-compulsive disorder	F42	74	11
Reaction to severe stress, and adjustment disorders	F43	3083	561
Acute stress reaction	*F43.0*	216	23
Post-traumatic stress disorder	*F43.1*	100	12
Adjustment disorders	*F43.2*	2739	523
Dissociative [conversion] disorders	F44	86	13
Somatoform disorders	F45	1023	167
Somatization disorder	*F45.0*	49	6

Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

Table 4. (continuation) Breakdown by diagnoses of first time and previously registered patients (2009)

Other neurotic disorders	F48	770	53
Neurasthenia	*F48.0*	393	24
Eating disorders	F50	88	23
Nonorganic sleep disorders	F51	109	24
Specific personality disorders	F60	1137	44
Paranoid personality disorder	*F60.0*	35	1
Schizoid personality disorder	*F60.1*	75	2
Dissocial personality disorder	*F60.2*	66	4
Emotionally unstable personality disorder	*F60.3*	504	22
Habit and impulse disorders	F63	3	0
Mild mental retardation	F70	9479	317
With the statement of no, or minimal, impairment of behaviour	*F70.0*	6434	185
Significant impairment of behaviour requiring attention or treatment	*F70.1*	2475	121
Other impairments of behaviour	*F70.8*	224	7
Without mention of impairment of behaviour	*F70.9*	342	3
Moderate mental retardation	F71	4635	93
Severe mental retardation	F72	1929	43
Profound mental retardation	F73	605	25
Other mental retardation	F78	22	0
Unspecified mental retardation	F79	123	18
Specific developmental disorders of speech and language	F80	746	181
Specific speech articulation disorder	*F80.0*	178	25
Expressive language disorder	*F80.1*	414	139
Receptive language disorder	*F80.2*	0	0
Acquired aphasia with epilepsy [Landau-Kleffner]	*F80.3*	23	0

Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

Table 4. (continuation) Breakdown by diagnoses of first time and previously registered patients (2009)

Specific developmental disorders of scholastic skills	F81	1251	207
Specific reading disorder	*F81.0*	30	2
Specific spelling disorder	*F81.1*	10	3
Specific disorder of arithmetical skills	*F81.2*	14	1
Mixed disorder of scholastic skills	*F81.3*	954	173
Mixed specific developmental disorders	F83	205	46
Pervasive developmental disorders	F84	350	58
Childhood autism	*F84.0*	58	6
Atypical autism	*F84.1*	66	13
Rett's syndrome	*F84.2*	6	1
Other childhood disintegrative disorder	*F84.3*	3	0
Overactive disorder associated with mental retardation and stereotyped movements	*F84.4*	2	0
Asperger's syndrome	*F84.5*	6	0
Hyperkinetic disorders	F90	839	150
Conduct disorders	F91	595	49
Conduct disorder confined to the family context	*F91.0*	52	2
Unsocialized conduct disorder	*F91.1*	162	13
Socialized conduct disorder	*F91.2*	291	29
Oppositional defiant disorder	*F91.3*	51	3
Mixed disorders of conduct and emotions	F92	532	129
Tic disorders	F95	121	14
Other behavioural and emotional disorders with onset usually occurring in childhood and adolescence	F98	234	37
Nonorganic enuresis	*F98.0*	80	9
Nonorganic encopresis	*F98.1*	25	6

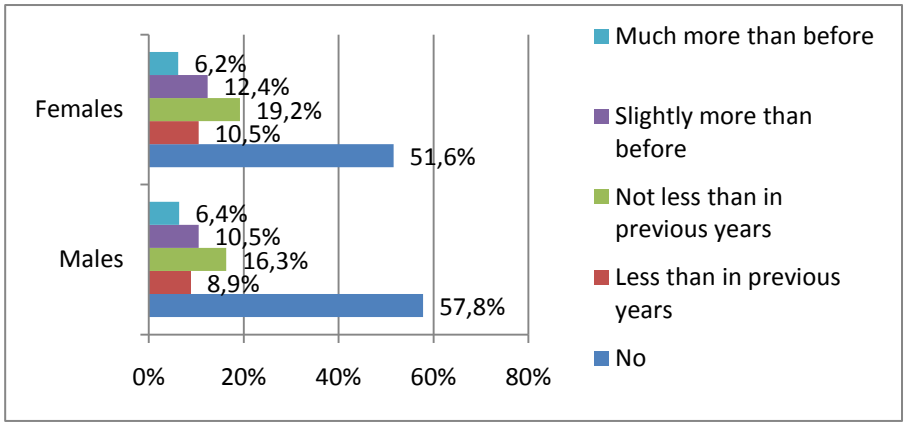
Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

1.3. Mental health research data

Depression is a serious health problem in society, as well as an important suicide risk factor for young and elderly people, the ones with late-onset depression are at particularly increased risk. High suicide risk has been observed in cases of unidentified and untreated depression. The prevalence of depression in population is remarkable, but, unfortunately, too often it is not considered an illness[6].

Analysis of Health Behaviour among Latvian Adult Population survey revealed that 48,4% women and 42,2% men, in their opinion, had experienced depression during the last year[7], but the symptoms of depression were reported even worse than before in 6,2% women and 6,4% men (see Chart 7).

Chart 7. Complaints of 15 – 64 years old people on depression during the last year (breakdown by gender in percent), Latvia



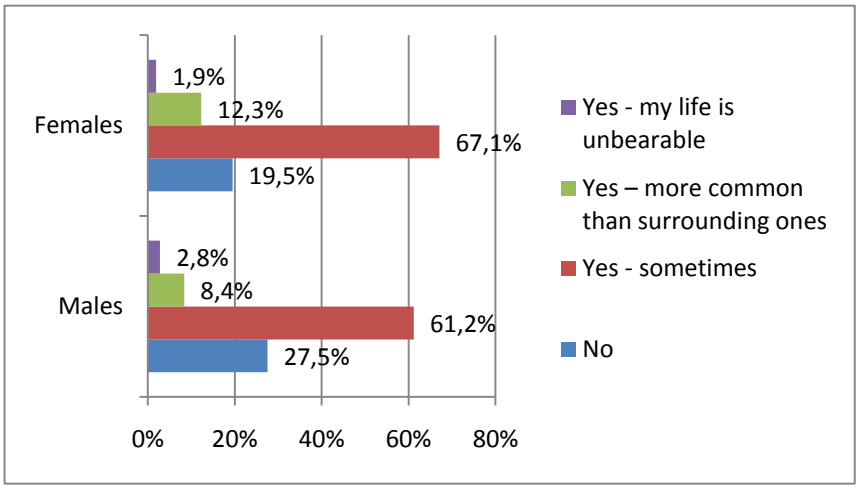
Source: CHE, Health Behaviour among Latvian Adult Population survey questionnaire data (2008)

Various psycho-emotional disturbances belong to health indicators. When asked on tension, stress and gloom feelings during the last month in Health Behaviour among Latvian Adult Population survey questionnaire in 2008, 2,8% men and 1,1% women in the age group from 15 to 64 years named their life unbearable (see Chart 8). 8,4% men and 12,3% women had experienced tension, stress and gloom feelings more often than surrounding people.

[6] WHO. *Suicide prevention: information for general practice doctors.* Public Health Agency, 2009, 21 pages

[7] CHE, Health Behaviour among Latvian Adult Population survey questionnaire data (2008)

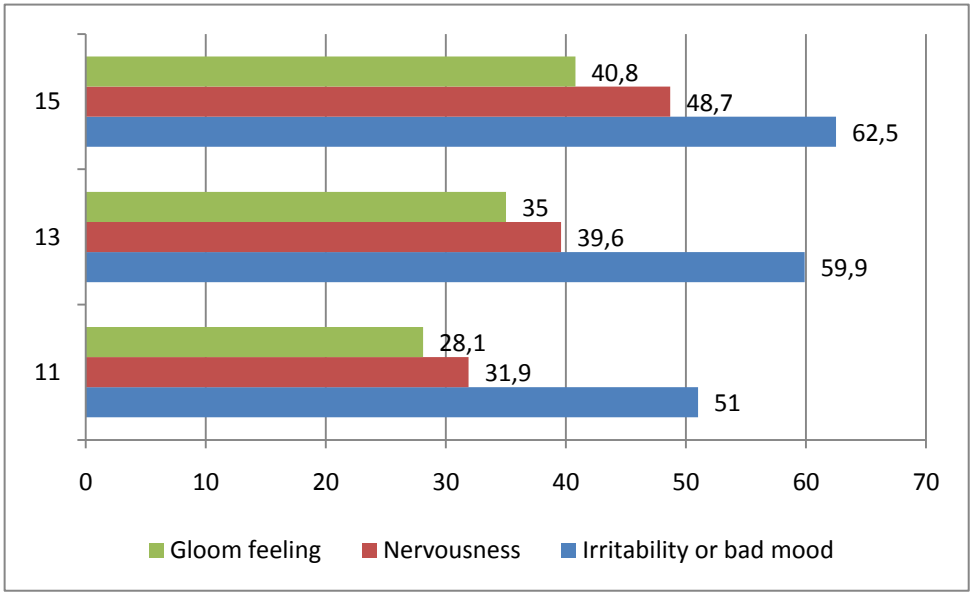
Chart 8. Frequency of tension, stress and gloom feelings during the last month (breakdown by gender in percent).



Source: CHE, Health Behaviour among Latvian Adult Population survey questionnaire data (2008)

HBSC (The Health Behaviour in School-aged Children) study data were summarized in the publication „Health and Psycho-emotional Well-being in School-aged Children in Latvia". These data show that psycho-emotional disturbances in 11-15 year old children are closely related to the age (see Chart 9).

Chart 9. Subjective psycho-emotional health complaints at least once a week in different age groups (in percent).



Source: PHA/CHE, The Health Behaviour in School-aged Children study, 2008.

There is a statistically significant increase in irritability or bad mood, nervousness and gloom feelings during growing up. When incidence of psycho-emotional subjective health complaints in different age and gender groups were analyzed, the highest level of irritability or bad mood, gloom feelings and nervousness were detected in 15 years old boys and girls. Irritability or bad mood feelings were reported in 15 years old boys by 7.7% more than in 11 years old boys. The difference between 15 and 11 years old girls is 14,6%. The same marked difference between age groups of boys and girls are seen regarding complaints on nervousness[8].

In cases when subjective complaints on health problems of the analyzed persons are evaluated, it must be kept in mind that the real proportion could be higher or lower than reported, because of the self-evaluation of these health problems, not diagnosis by qualified specialist.

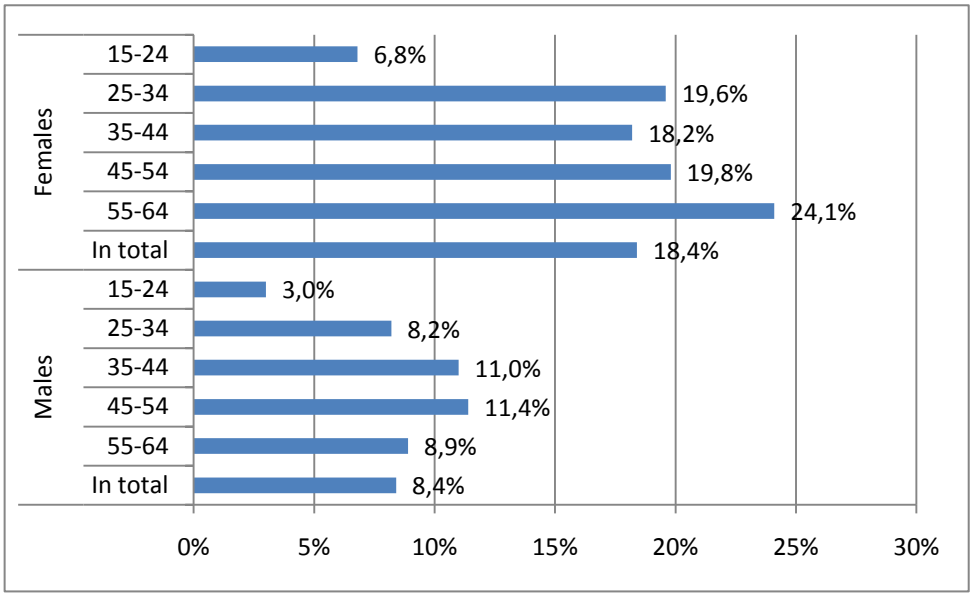
In statistical data report „Public health survey data in Latvia" respondents have answered to a question on different diseases during their lives, but, afterwards, to a question if the disease or health problem was diagnosed by doctor. In most cases the disease was diagnosed by a doctor, but in several diseases confirmation of the diagnosis was reported less often, for example, in cases of chronic anxiety (57,2%) and depression (60,2%) the confirmation by a doctor was most uncommon. One of the conclusions of this survey mentions that these diseases together with several other ones which are confirmed by a doctor quite rarely (urinary bladder diseases, incontinence of urine, headache, back pain) characterize the range of health problems for which people see their doctors most rarely[9].

Health Behaviour among Latvian Adult Population survey questionnaire in 2008 collected also data on drug use. The prevalence of sedative drug use during the last week is higher in women (M/F=8,4%/18,4%). The highest prevalence in men (11,4%) is in the age group of 45 – 54 years, but in women (24,1%) in the age group of 55 – 64 years (see Chart 10).

Chart 10. Sedative drug use during the last week (breakdown by age and gender in percent)

[8] Biruta Velika, Iveta Pudule, Daiga Grinberga, Inese Gobina, Nikola Tilgale, Anita Villerusa, Uldis Teibe. Health and Psycho-emotional Well-being in School-aged Children in Latvia. Riga: State Agency „Public Health Agency", 2008, 11 pages

[9] Statistical data report *Public health survey data in Latvia*. Central Statistical Bureau of Latvia, 2009, 77 pages.



Source: CHE, Health Behaviour among Latvian Adult Population survey questionnaire data (2008)

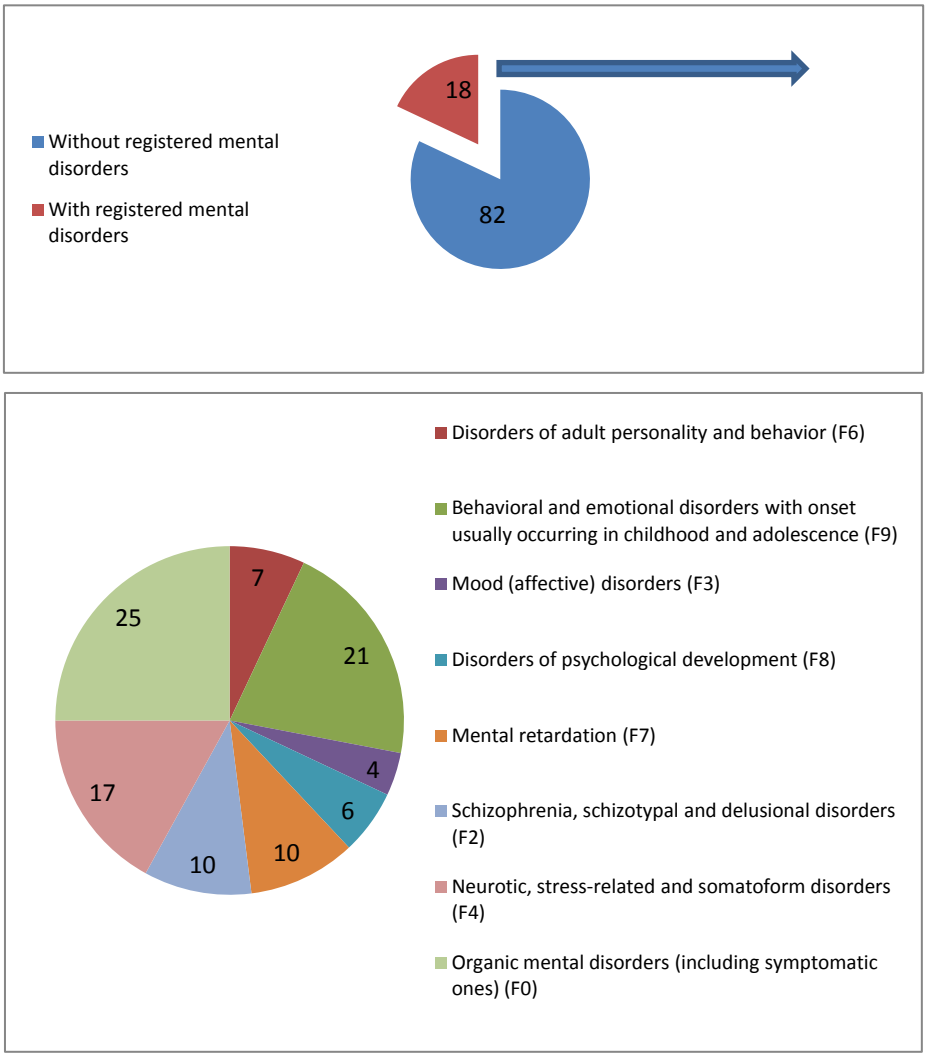
Due to the continuing progress in diagnostics and development of treatment options in health care, more emphasis in Europe and worldwide has been put on the care of patients with co-morbidities. Worldwide research data show that substance abuse, intoxication and addiction induces mental symptoms and syndromes or worsen them and vice versa – mental disorders can promote use of psychoactive substances[10,11].

Considering the significance of the mentioned co-morbidity problem, specialists of the Epidemiological Surveillance of Addiction Disorders Unit of CHE performed data coupling and analysis of both, the Register of patients suffering from certain diseases on patients with mental and behavioural disorders and the Register of patients suffering from certain diseases on persons with substance abuse and addiction disorders to analyze the prevalence of dual diagnosis of substance abuse and mental illness in Latvia (see Chart 11).

[10] Valderas JM.; Starfield B.; Sibbald B.; Salisbury C.; Roland M. *Defining Comorbidity: Implications for Understanding Health and Health Services* Annals of Family Medicine 7:357-363, 2009

[11] Crome I. *An epidemiological perspective of psychiatric comorbidity and substance misuse: The UK experience/example, in Baldacchino*, A. and Corkery, J. (Eds.) Comorbidity: Perspectives Across Europe (ECCAS Monograph No. 4) p. 45–60.

Chart 11. Proportion of patients (in percent) with mental and behavioural disorders from all the first time registered persons with substance abuse (1998–2008)



Source: PREDA data

Data on 7286 patients with primary diagnosis of drug, psychoactive and toxic substance abuse (hereinafter – substance abuse patients) in the time range from 1998 to 2008 were analyzed. These data show that every fifth (18,4%) substance abuse patient has a diagnosis related to mental health disorders.

The most common mental diagnoses among substance abuse patients in Latvia are organic mental disorders, including symptomatic ones (25% of the analyzed patients), behavioural and emotional disorders with onset usually occurring in

childhood and adolescence (21%), neurotic, stress-related and somatoform disorders – (17%).

Approximately in every tenth (11%) patient included in cohort study the initial diagnoses of substance abuse and mental illness have been identified almost simultaneously (within range of six months), in 31% – mental diagnosis was identified later than already existing diagnosis of substance abuse. In 58% patients mental disorders were diagnosed primarily and diagnosis related to substance abuse was added later. These data partially confirm the observation from recent studies that substance abuse frequently begins due to psychopathologies. Additionally, mental health prognosis decreases in persons with early-onset and long-lasting substance abuse[12].

Regarding the fact that this is the first attempt to clarify the prevalence of dual diagnosis among persons with substance abuse in Latvia, it is difficult to estimate, at what degree the obtained results are influenced by registration problems of both, mental health and substance abuse patients, and further deeper research is required.

[12] European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). *Co-morbidit y - drug use and mental disorders.* Drugs in focus. Lisabon: 2004

1.5. Suicides

Number of suicides is one of the indicators what characterizes population mental health of the country and region, underlines risk groups and risk factors. It must be taken into account that suicide is the consequences of number of problems – accessibility and quality problems of health care services, society attitude, weakness of mental health care system[13].

Worldwide annually almost one million people commit suicide. The mean mortality rate worldwide is 16 suicide deaths per 100 000 inhabitants – someone commits suicide every 40 seconds[14].

In many countries worldwide suicide is one of the three most common causes of deaths in the age group from 15 to 44 years and the second common cause of death in the age group from 10 to 24 years. Additionally, these numbers do not include number of suicide attempts what have been performed even 20 times more common than committed suicide[12].

Suicide is a complex phenomenon related to psychological, social, biological, cultural and environmental factors. Mental and behavioural disorders, most common, depression and alcohol abuse are the greatest suicide risk factors in European Region[13].

Among external causes of deaths in Latvia the highest PYLL rates are related to suicides and traffic accidents, especially, in men[15].

Situation in Latvia was analyzed by help of CHE Register of death causes and, as seen in Chart 12, dynamics of suicide number in Latvia has a trend to change over years. There is a very slight decrease of the suicide death rate in men by almost one (0,9) per 100 000 of Latvian population. When rates from 2009 are compared to the ones from 2008, there is a slight decrease in total number of committed suicides due

[13] Maris Taube, Ilze Damberga. *Suicides in Latvia – situation, perspective, solutions.* Riga, State Agency „Public Health Agency", 2009, 29 pages

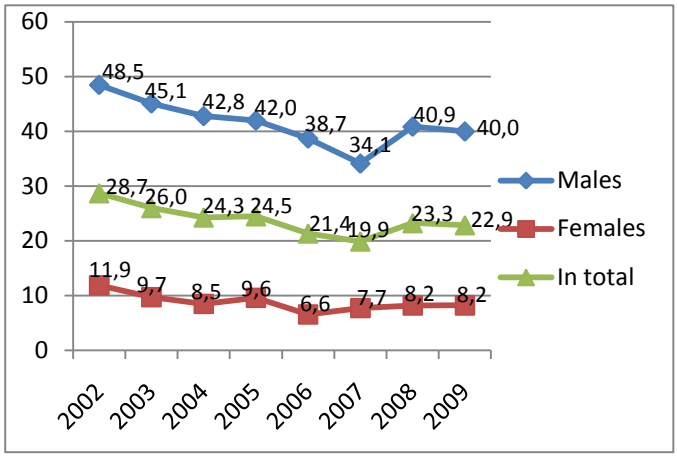
[14] WHO. Suicide prevention (SUPRE)
http://www.who.int/mental_health/prevention/suicide/suicideprevent/en/index.html

[15] Jolanta Skrule, Margita Stale, Gunta Rozentale, Ainars Rutks. *Potential Years of Life Lost in Latvia, 2008*. The Centre of Health Economics, 2009, 35 pages

to the small decrease in number of male suicides, as there is no change in number of committed suicides in women compared to data from 2008. Awareness must be paid to the stable predominance of suicides committed by men and to possible risk factors, for instance, socio-economic situation in the country, financial crisis, unwanted job change, unemployment, addiction substance use etc., but Latvia is a not unique country in this field, because the same trend is observed worldwide – suicides are most commonly committed by men, especially middle-aged ones[13].

Attention also must be paid to the recent mass media information on Latvian citizen suicide deaths abroad. For example, as announced in mass media, suicide has been the cause of death in 60% from 46 Latvian citizens who died in United Kingdom. The similar data on suicide deaths of Latvian citizens during last year are also from Ireland and Germany[16].

Chart 12. Dynamics of suicide number (breakdown by gender per 100 000 inhabitants), Latvia (2002-2009)



Source: Register of death causes. The Centre of Health Economics.

Analysis of age structure of committed suicides in 2009 shows the predominance of suicide death in the age group of 45–59 year old men (see the continuation of Table 5), but women committed suicide most common in the age of 75 years and above. As an important problem in 2009 are suicides of elderly people, most common related to loneliness, loss of self-esteem and importance in society as well as physical health loss.

[16] LETA. *60% of the dead Latvian citizens in United Kingdom have committed suicide*. Wednesday, February 10, 2010 15:29 http://www.diena.lv/lat/politics/hot/60-no-pern-lielbritanija-mirusajiem-latvijas-valstspiederigajiem-izdarijusi-pasnavibu

Table 5. Dynamics of suicide rates (breakdown by age groups and gender), Latvia (1990-2009)

Age group	1990		1995		2000		2001		2002		2003	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
10-14	5	2	3	1	4	1	3	0	3	0	3	1
15-19	18	7	21	5	20	4	13	5	12	3	10	3
20-24	21	4	44	5	33	4	30	1	40	3	33	6
25-29	54	8	75	7	38	8	33	4	37	6	37	5
30-34	65	3	71	5	45	7	51	7	30	6	33	8
35-39	56	9	74	19	54	10	42	7	52	10	42	8
40-44	51	8	99	21	76	12	74	13	70	10	58	7
45-49	56	12	79	18	70	8	69	10	44	6	52	9
50-54	55	13	87	23	65	9	61	17	66	18	51	11
55-59	46	12	102	17	64	13	57	10	57	17	43	10
60-64	31	13	60	16	46	17	53	14	45	23	21	7
65-69	22	18	60	17	39	13	33	13	22	9	24	9
70-74	20	9	17	11	26	15	25	12	18	11	38	13
75-79	19	11	10	16	13	10	12	14	12	11	19	11
>80	22	25	23	18	24	21	10	15	14	17	19	14
IN TOTAL	**541**	**154**	**825**	**199**	**618**	**152**	**566**	**142**	**522**	**150**	**483**	**122**

Source: Register of death causes. The Centre of Health Economics.

Table 5. (continuation). Dynamics of suicide rates (breakdown by age groups and gender), Latvia (1990-2009)

2004		2005		2006		2007		2008		2009	
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1	0	4	1	0	0	1	2	0	1	0	0
12	2	15	3	11	1	11	4	8	5	13	2
26	4	27	3	34	0	21	2	31	2	25	1
26	3	39	1	27	3	26	3	39	3	35	2
36	10	37	4	38	7	32	4	33	5	32	6
34	4	36	4	24	7	30	6	38	6	32	3
49	4	43	4	35	4	40	6	37	7	41	8
62	9	55	10	54	4	39	5	38	1	51	10
43	6	51	13	50	6	34	9	49	10	43	11
41	8	31	11	35	7	31	10	44	10	49	12
42	17	33	11	19	6	19	3	22	7	23	12
27	5	29	11	21	5	19	7	35	8	25	3
28	9	24	11	30	8	15	7	18	8	17	4
19	9	12	9	21	11	20	10	19	9	18	13
10	16	9	23	9	12	20	17	16	18	12	13
456	**106**	**445**	**119**	**408**	**81**	**358**	**95**	**427**	**100**	**416**	**100**

Source: Register of death causes. The Centre of Health Economics.

Analysis of suicide number breakdown by statistical regions in Latvia (see Table 6) show that the peak suicide rate in absolute numbers in 2009 was in Riga and Riga regions. More objective view to the situation is shown by calculation per 100 000 inhabitants of every region what shows the peak suicide rate in 2009 in Latgale (28,7 per 100 000 inhabitants), but the lowest – in Riga (16,1 per 100 000 inhabitants). One of possible explanations is the lowest employment rate in Latvia[17], compared to other regions in state. In addition, as mentioned before, there is also a higher prevalence of mental and behavioural disorders in Latgale (see Chart 4 in Chapter 1.1.) what, according to some research data, is considered one of the main suicide risk factors[5].

Table 6. Number of suicides (breakdown by statistical regions in absolute numbers per 100 000 inhabitants), Latvia (2009)

Region	Suicides in absolute numbers	Suicides per 100 000 inhabitants
Latvia	**516**	**22,9**
Riga	114	16,1
Riga region	101	26,1
Vidzeme	53	22,6
Kurzeme	75	25,0
Zemgale	75	26,7
Latgale	98	28,7

Source: Register of death causes. The Centre of Health Economics.

[17] Data of the Central Statistical Bureau of Latvia on population economic activity in regions of Latvia (2009)

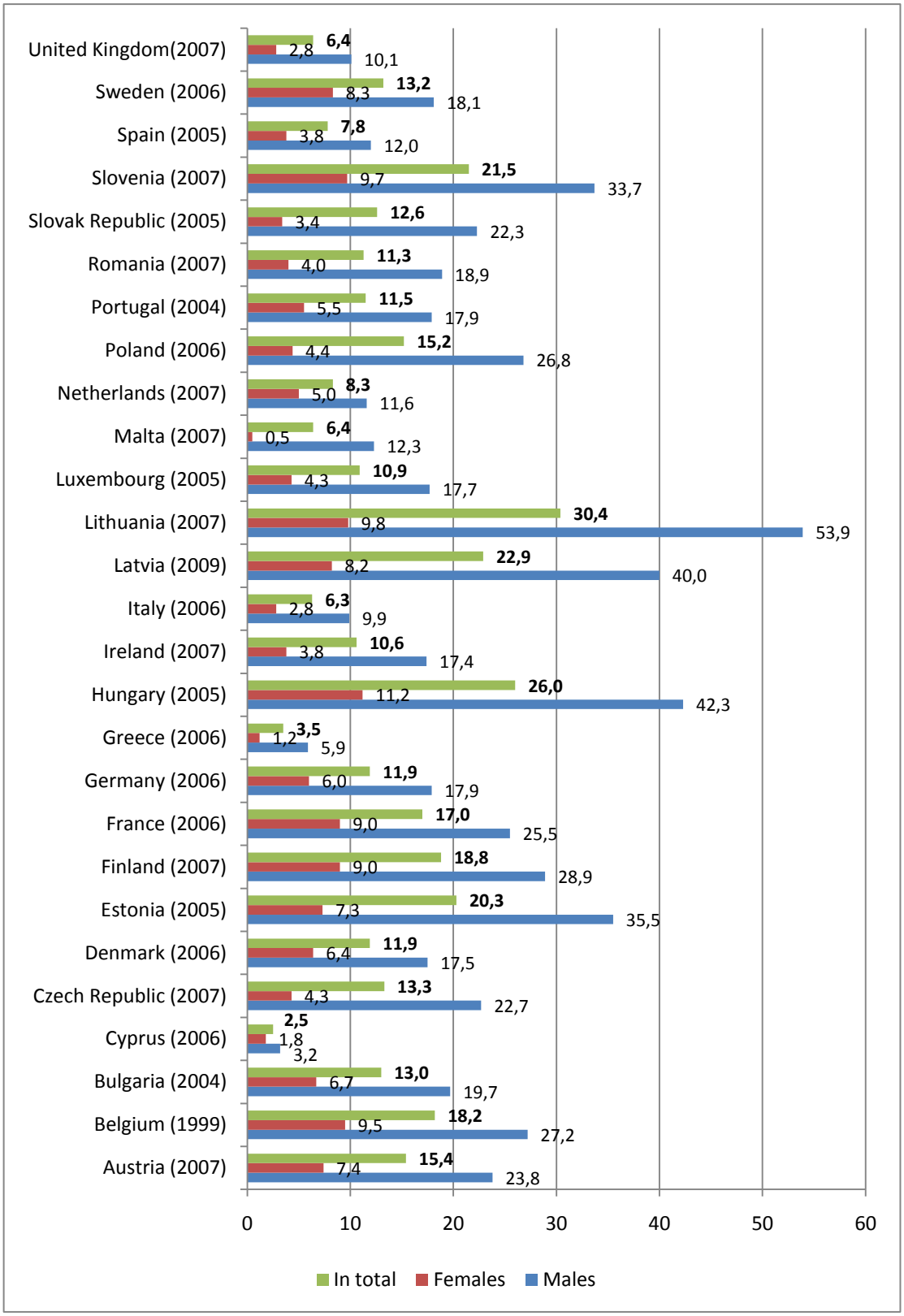
To evaluate if suicide rates in Latvia are high or low, it is important to compare them with the rates of other countries. Data from WHO database on European Union member states are used in report and, to compare them, they are combined with Latvian data from 2009 (see Chart 13). It has to be taken into account that the year in brackets behind the name of each country is the last one with available data, and the years differ.

The overall data show that Latvia (22,9) holds the high third position regarding the number of suicides per 100 000 inhabitants among European Union member states, higher suicide rate is only in Lithuania (30,4) and Hungary (26,0). It is worth to mention that EUROBAROMETER Latvian national report in autumn 2009 reveals that the same European Union states (Lithuania, Hungary and Latvia) are among the countries whose residents are comparatively unsatisfied with their lives. According to EUROBAROMETER data, 43% inhabitants in Latvia are not satisfied with their lives[18].

Data show that situation in Latvia regarding suicides is serious enough, to draw a stronger attention to this problem and implement suicide prevention programmes. The future actions for improvement of the situation could be alcohol use restriction, strengthening of socio-economic safety, help to risk group persons, access restriction to certain means of committing suicide, to increase role of the mass media in reduction of prejudice against patients with depression, to increase public awareness of mental symptoms and suicide prevention, mental health care system improvement and strengthening, work with specific groups – families and children, school-aged children, employed persons and elderly people, research on suicides and data collection[12].

[18] *Eurobarometer 72. Public opinion analysis in European Union.* National report, autumn 2009, 89 pages.

Chart 13. Prevalence of suicides in 27 European Union member states (breakdown by total numbers and by gender per 100 000 inhabitants of respective state).



Source: EU data: WHO (http://www.who.int/mental_health/prevention/suicide/country_reports/en/index.html) checked on June 13, 2010. Latvian data: Register of death causes. The Centre of Health Economics.

2. Socio-demographic characteristics of the patients

World Health Organization (hereinafter – WHO) had defined health as a state of complete physical, mental and social well-being, not merely the absence of disease[19]. All three mentioned components are crucial for wholesome existing of an individual. Social and demographic characteristics of mental health are discussed more detailed in this chapter.

Data support the connection between socio-economic conditions and mental health – the lower is socio-economic condition of an individual, the higher is risk for morbidity and hospitalization related with mental and behavioural disorders. Worse socio-economic conditions enable development of mental and behavioural disorders and vice versa – already existing, biologically determined mental disorder can promote shift of the person towards worse socio-economic status during his life[20].

Socio-demographic data evaluation can be the base for planning the health care services for persons with mental and behavioural disorders. For instance, improvement of treatment options and possibility to join some society-based mental health care offered services outside the hospitals (group flats, day care centres etc.) can reduce the disease relapse risk, as well as improve patient's quality of life[21].

Data from Register reveal (see Chart 14) that in 2009 the biggest part (27,3%) of patients with mental and behavioural disorders are maintained by other persons, source of subsistence for 26,5% was disablement pension, but any work as the source of subsistence was mentioned only in 13,3% patients who work in the private (4,6%) or public (8,7%) sectors.

According to Central Statistical Bureau data, the proportion of employed persons in population (15 – 74 years old persons) in Latvia in 2009 was 55,2%. When data on patients in 15 – 74 year age group in 2009 were selected from Register and sources of their subsistence were analyzed, the proportion of employed persons

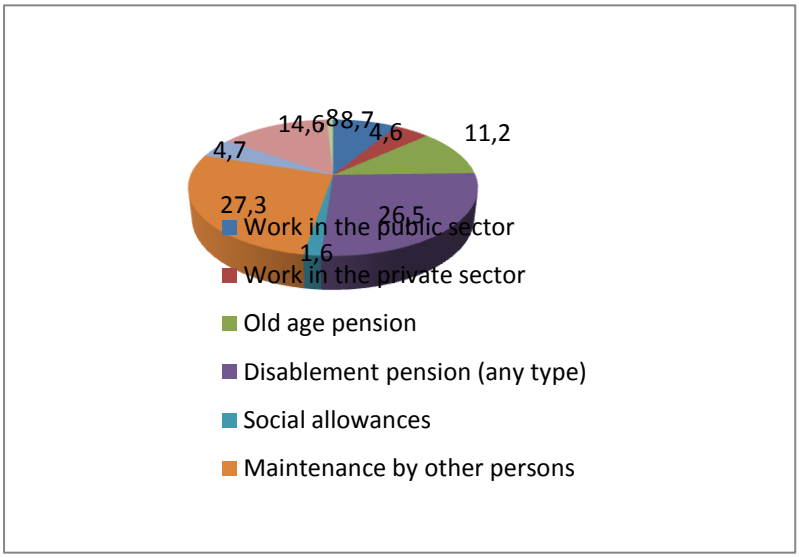
[19] WHO. *Constitution of the World Health Organization*. 2006.

[20] Bruce Link, Jo Phelan. *The Concept of Fundamental Causes In Explaining Social Inequities in Health.* American Journal of Orthopsychiatry 2005, Vol. 75, No. 1, 3–18 DOI: 10.1037/0002-9432.75.1.3.

[21] World Health Organization, The World health report: *Mental health: new understanding, new hope*, 2001

among people with mental and behavioural disorders in this age group was only 16%. Although it is taken into account that employment level of people with mental and behavioural disorders could be lower due to disability or other factors, but the situation still requires the actualization of question on employment options for people with mental and behavioural disorders in Latvia.

Chart 14. Sources of subsistence of registered patients with mental and behavioural disorders (in percent), Latvia (2009)



Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

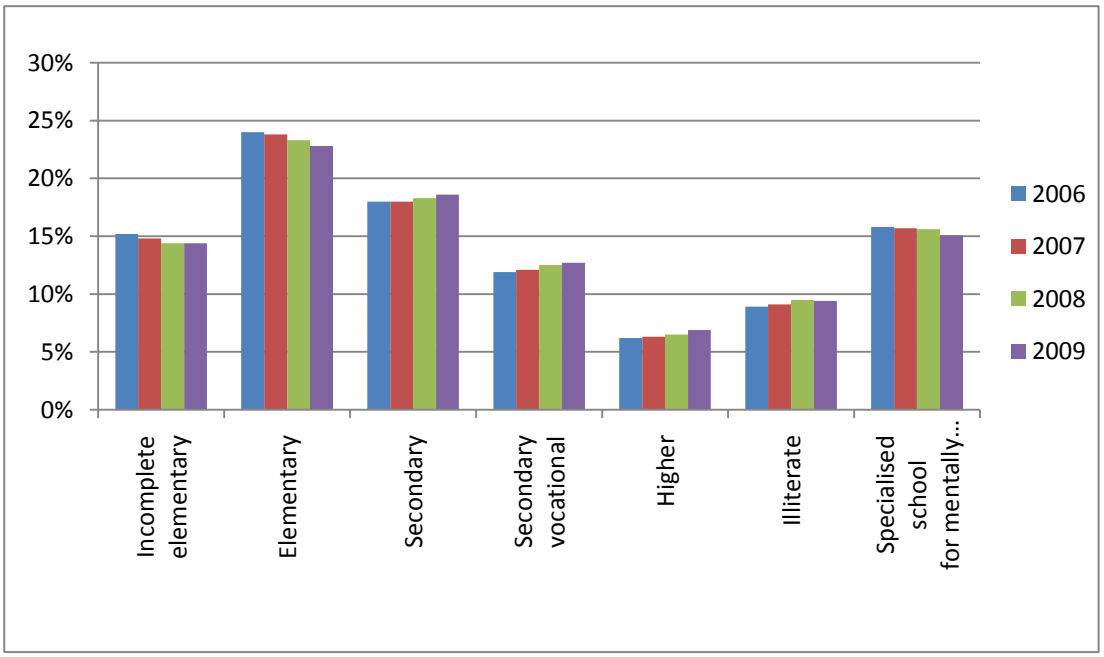
According to the National statistical report on mental disorders and mental patient contingent data, in 2009 among all registered patients with mental and behavioural disorders 19,4% had recorded different problems related to non-social environment what had influenced health status and care of these patients: in 4% cases health threat was due to socio-economic and psycho-social conditions (education problems, unemployment and job loss risk, work conditions, household and economical problems), in 12,2% cases health threat was due to family, social environment and social reasons (atypical upbringing, cultural maladaptation, social isolation, lifestyle problems), other social problems were recorded in 3,2% cases.

An important socio-demographic indicator is also education level. The results of some study from USA what analyzed social consequences of mental and behavioural disorders confirm that mental disorders are related to unfavourable

consequences during further education. Among total number of students who interrupted studies in secondary schools, 14,2% interrupted them due to mental and behavioural disorders, but the proportion among college students was 4,7%[22].

There is no significant change in educational background of registered patients with mental and behavioural disorders over last four years (see Chart 15). The proportion of patients with elementary school, incomplete elementary school or specialized school education slightly decreases every year, but there is a small increase in group of patients with secondary, secondary vocational and higher education.

Chart 15. Educational background of registered patients with mental and behavioural disorders (2006-2009).

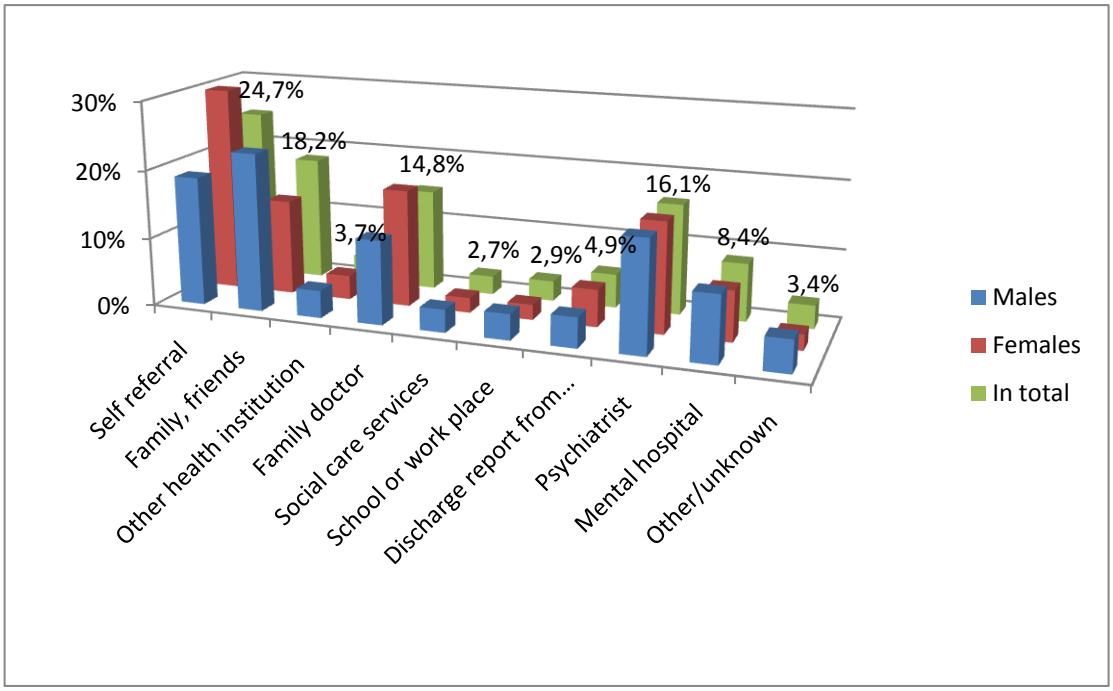


Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

To reveal the way how the patients with mental and behavioural disorders reach the specialists and receive help, as well as to plan population information and education enterprises, it is important to analyze ways of discovering the mental and behavioural disorders (see Chart 16).

[22] RC Kessler, CL Foster, WB Saunders and PE Stang. *Social consequences of psychiatric disorders, I: Educational attainment*. Am J Psychiatry 1995; 152:1026-1032

Chart 16. Way of discovering the initial diagnosis in first time registered patients with mental and behavioural disorders (breakdown by gender), in Latvia (2009)



Source: Register of patients suffering from certain diseases on patients with mental and behavioural disorders. The Centre of Health Economics.

Register data on first time registered patients with mental and behavioural disorders in 2009 show that the most common cause for initial visit is a self-referral of people (24,7%), but the second common cause is a recommendation of family and friends to seek help (18,2%). These data can be clarified by a fact that psychiatrist in Latvia is a direct accessibility specialist and no referral is needed for specialist's consultation. Thus existing order motivates people to consult a specialist[1].

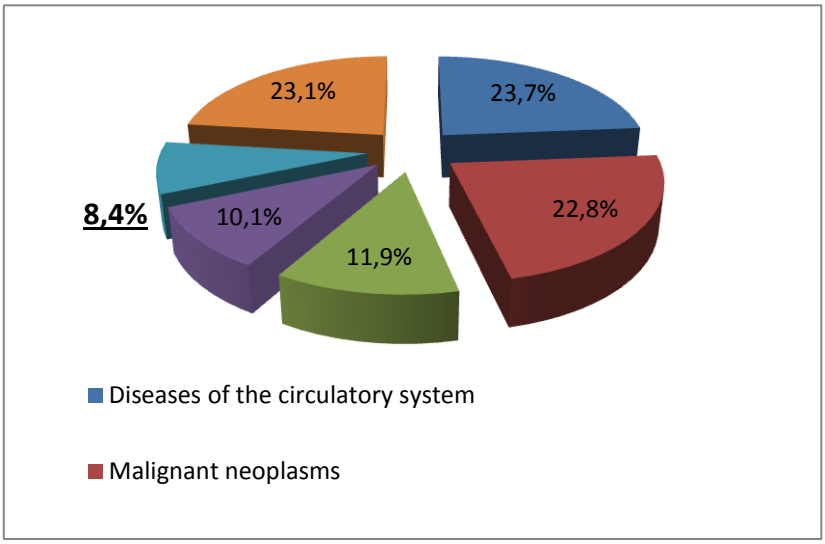
Analyzing the most common ways to initial specialist visit, there is a distinct breakdown by gender – women mostly seek specialist's help without any referral (M/F=18,8%/29,9%), but advice of family and friends to seek for help has been need mostly for men (M/F=23,0%/13,9%).

Discussions with clients of mental care services supported the great importance of awareness of family, surrounding people and society on mental health disorders, their symptoms and treatment. Fear from negative attitude of society can promote standing apart and seclusion from society of patients with mental disorders as well as decrease their wish to participate in various state-funded services and initiatives, for instance, in the fields of treatment and employment[1].

3. Disability due to mental and behavioural disorders[23]

The first time disability due to mental and behavioural disorders in 2009 was acknowledged to 1156 persons older than 16 years – 552 men and 604 women. When compared to 2008, the number of first time disabled persons due to mental and behavioural disorders has increased by 151 persons. Due to mental and behavioural disorders the most common was the 2nd disability group (785 persons), but the 1st and the 3rd disability group was, respectively, 204 and 167 persons. Disability related to mental and behavioural disorders in 46,7% persons was in the age of 16 – 39 years, 35,1% - in the age of 40 – 59 years and 18,2% - in the age of 60 and more years. In breakdown by diseases of the total first time disability in persons older than 16 years in 2009 disability due to mental and behavioural disorders holds the fifth place (see Chart 17).

Chart 17. Total first time disability in persons older than 16 years (breakdown by diseases), Latvia (2009)



Source: Mental Committee on Health and Work Ability Expertise.

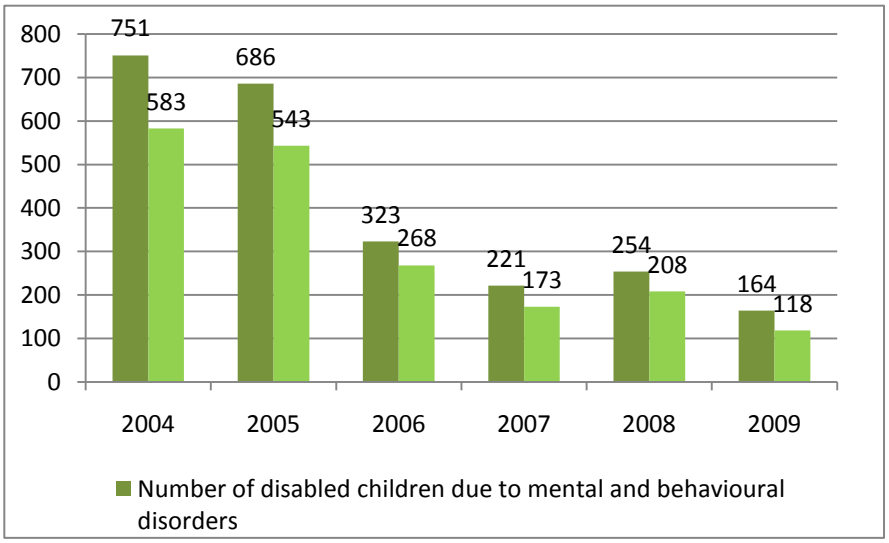
The biggest proportion of the total first time disability due to mental and behavioural disorders in persons older than 16 years is created by schizophrenia patients – in year 2009 it was 529 or 45,7% from the total number of persons with first time disability due to mental and behavioural disorders. 474 persons were acknowledged as disabled persons due to schizophrenia with 2nd disability group, but the 1st and the 3rd disability group – to 11 and 44 persons, respectively.

[23] Mental Committee on Health and Work Ability Expertise. *Public report on year 2009*, 49 pages.

Breakdown by diseases of repeated acknowledgement of disability in persons over 16 years in 2009 does not change as compared to data from 2008 – in both years repeated disability due to mental and behavioural disorders takes the third place immediately behind such reasons as diseases of the circulatory system and malignant neoplasms. Repeated disability due to mental and behavioural disorders in 2009 was acknowledged to 3979 persons.

First time disability due to mental and behavioural disorders in 2009 was acknowledged to 164 children under the age of 16 years what makes 19,2% of the total first time disabled persons, when breakdown by diseases is analyzed. Disability breakdown by gender: 65,2% boys and 34,8% girls. 36,6% children were considered disabled already in the age of 0 – 6 years, but 63,4% - from 7 to 16 years. Disability due to mental and behavioural disorders among total first time disabled persons takes the second place – immediately behind congenital malformations, deformations and chromosomal abnormalities. The highest proportion among the total first time children disability due to mental and behavioural disorders is created by children with mental retardation – 118 or 71,9% of the total number of first time disabled persons with mental and behavioural disorders (see Chart 18). When compared to year 2008, there is a decrease in first time disability in children under 16 years of age.

Chart 18. First time disability due to mental and behavioural disorders in children under 16 years of age (in absolute numbers), in Latvia (2004-2008)



Source: Mental Committee on Health and Work Ability Expertise.

The possible reasons of the first time disability decrease: clarification done by expert doctors on principles and criteria of children disability expertise for other doctors and specialists, professional expertise what follows unified principles (since January 12, 2009 most of children undergo children disability expertise in Riga Specialized Paediatric Expertise No.4), as well as, possibly, decreased birth rate in the last years and the large emigration process.

Repeated disability due to mental and behavioural disorders in 2009 was acknowledged to 528 children under 16 years of age and takes the first place in the breakdown of repeated disability by diseases.

4. Mental health care services

4.1. Outpatient care

Outpatient care in Latvia for persons with mental and behavioural disorders is provided by both, state-funded and private institutions and doctors' practices. State-funded services are provided by outpatient mental care units in mental care hospitals[24] and general hospitals[25] where psychiatry care is available, by psychiatrists and paediatric psychiatrists who work in outpatient institutions, as well as by practices of psychiatrists and paediatric psychiatrists who have contracts on treatment of persons with mental and behavioural disorders based on the state-funded programme. Progressive form of care is outpatient mental care centres which are located outside the mental or other hospitals and offer larger variety of services, not only the visit to psychiatrist, but also day care, music and art therapy, rehabilitation etc. There is one such centre created and successfully working in Riga. An important role in the care of people with mental and behavioural disorders is played by family doctors who frequently are the first ones who approach these patients in early stages of the disease, perform diagnostical tests, ask for consultant advice and sometimes begin the treatment. An important role is played by psychiatric nurses and also nurses of family doctors who are involved in the treatment process of patients. The importance of outpatient care services is steadily increasing, because their task is to provide the basic treatment for persons with mental and behavioural disorders, maximally decrease patients' risk for admission in hospitals and provide the type of care which allows shorter hospitalizations only in case of exacerbations of serious chronic diseases. The present situation is changed, the treatment basically is performed in hospitals. Outpatient care must be well developed, to re-orientate treatment of persons with mental and behavioural disorders from hospitals to outpatient care services. Qualitative outpatient care is not inexpensive and its development at present in Latvia is very slow.

[24] Specialized hospitals, specialized centres.

[25] University hospitals, multi-profiled hospitals, care hospitals.

Using the available data from OHSPS Management Information System of Health Payment Centre, we tried to calculate the real number of unique patients[26] who use the state-funded outpatient care services. In total, 148361 person[27] had sought the outpatient help at different specialists what makes 6,5% of Latvian population.

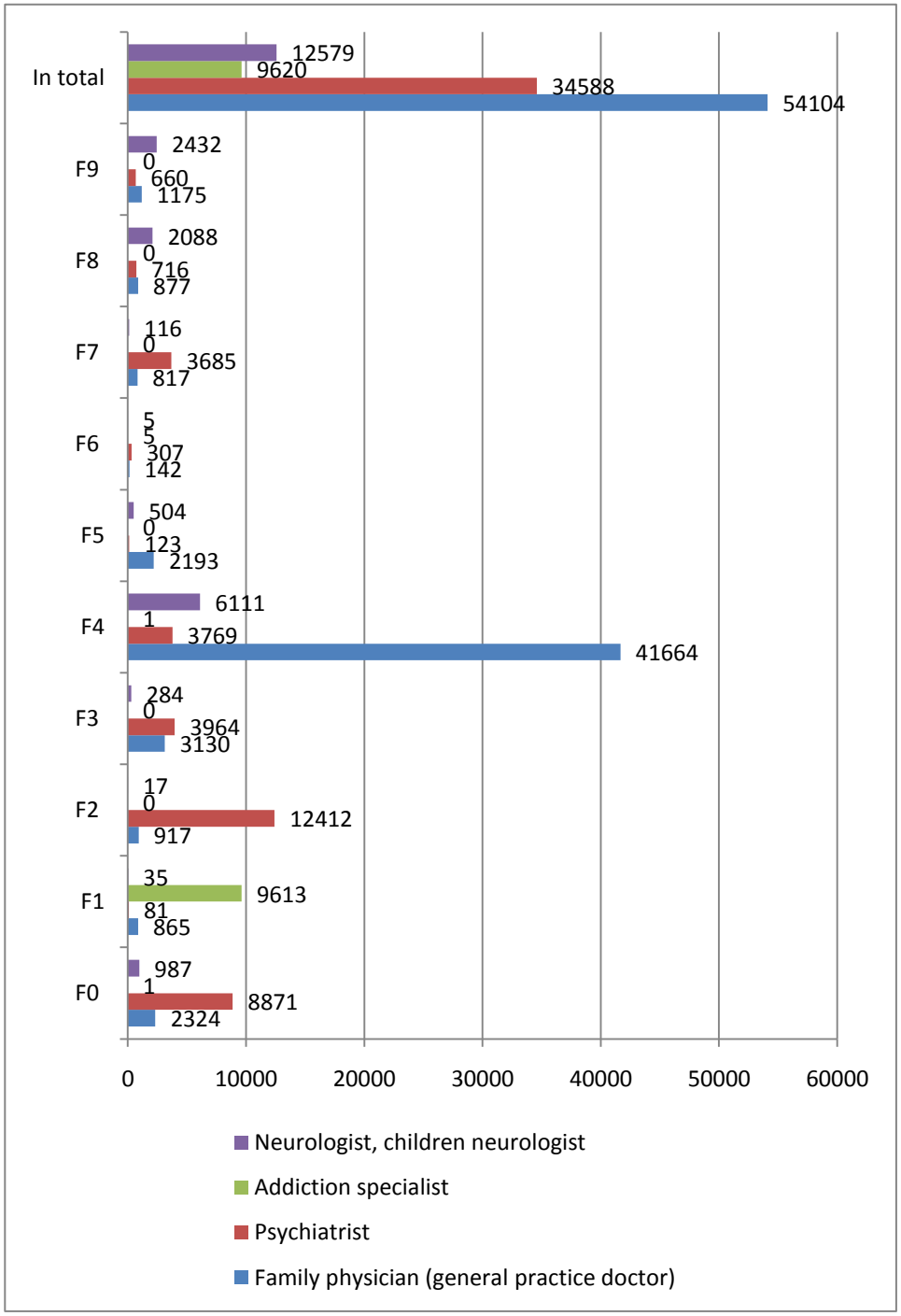
Evaluating the number of patients who received state-funded help in 2009 at the specialists who most commonly treat persons with mental and behavioural disorders (psychiatrist, addiction specialist, neurologist, paediatric neurologist, family doctor), it was concluded that total number of such unique patients is 110 891 (see Chart 19). There is information only on 69716 patients in Register, several reasons could be responsible for this gap - the information is entered only on severe patients, but not sufficiently by family doctors, there is a separate Register for patients with mental and behavioural disorders related to use of psychoactive substances. The mentioned 110 891 unique patients are 4,9% of Latvian population, but, based on information from other countries, the overall number of real persons who would have diagnosis of mental and behavioural disorders and require treatment could be even higher (7 - 9 %), but not all the patients look and receive help – part of them receive help at specialists in private practices, and, subsequently, there is no sufficient information on them.

The breakdown of unique patients with basic diagnosis of mental and behavioural disorders treated outpatient in 2009 by specialties (see Chart 19) show that the largest amount of work was done by family doctors who treated 54104 patients, but psychiatrists treated 34588 patients. Evaluation of range of treated diagnoses by family doctors and psychiatrists show that family doctors most commonly treated persons with neurotic, stress-related and somatoform disorders, but psychiatrists treated mainly patients with diagnoses of schizophrenic disorders and organic mental disorders. Patients with mental and behavioural disorders related to use of psychoactive substances have been treated almost only by addiction specialists (narcologists).

[26] A unique patient is a patient who has received outpatient help one or more times during year 2009, calculation was done using OHSPS data from HPC massive data set on patients with mental and behavioural disorders (received from HPC on March 18, 2009). The fixed basic clinical diagnosis after the last visit to specialist during the last year was taken into account in data analysis.

[27] Excluding persons with diagnoses from F10 – F19 group = 136743 persons.

Chart 19. Unique patients[25] (in absolute numbers) with mental and behavioural disorders (breakdown by initial visit to doctor and specialties of physicians), Latvia (2009)

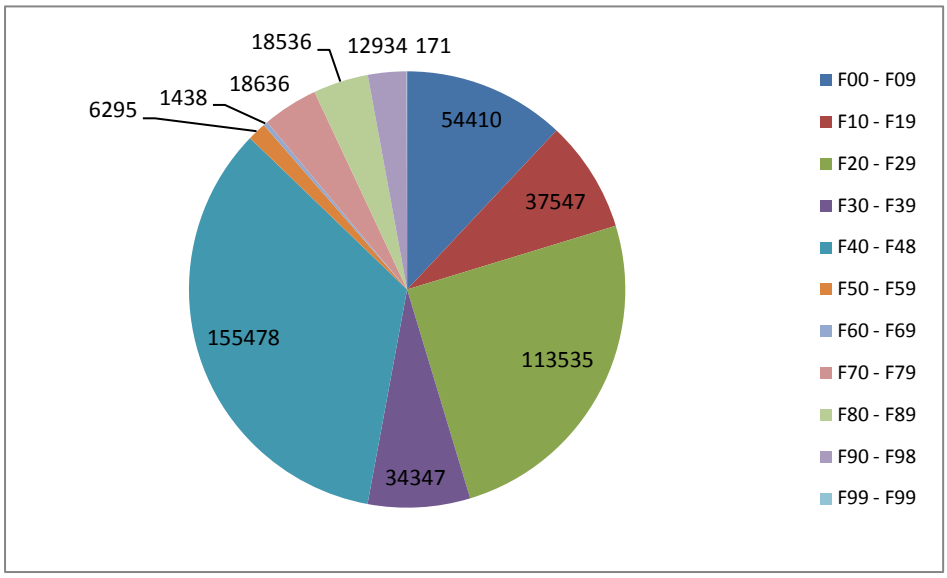


Source: Massive data set on patients with mental and behavioural disorders. Received HPC March 18, 2009, unpublished calculations.

In 2009 the total outpatient visit number at any doctor with basic clinical diagnosis of mental and behavioural disorders was 453327 (see Chart 20). The most common reason for visits were neurotic, stress-related and somatoform disorders (F4),

schizophrenia, schizotypal and delusional disorders (F2), organic mental disorders (F0), mental and behavioural disorders related to use of psychoactive substances (F1).

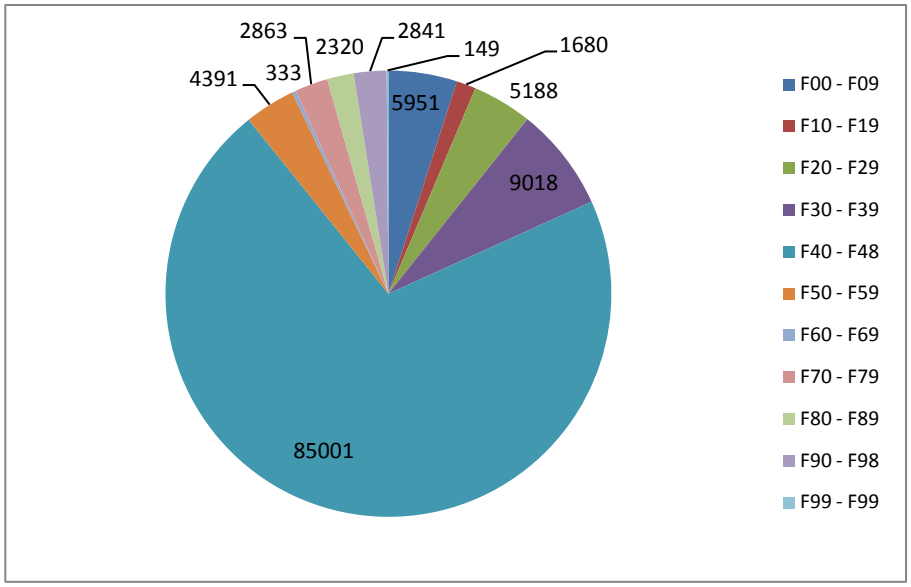
Chart 20. Number of visits at all specialty doctors with basic clinical diagnosis of mental and behavioural disorders (in absolute numbers) (2009)



Source: HPC Management Information System, August 17, 2010.

Evaluation of the number of visits due to mental and behavioural disorders at family doctor shows that the highest number of visits is due to neurotic, stress-related and somatoform disorders (F4) (see Chart 21). Taken into account that during 2009 the unique number of patients at family doctors due to neurotic, stress-related and somatoform disorders was 41664, one can conclude that one and the same patient has seen family doctor in average twice a year. 5188 visits at family doctors in 2009 were by patients with schizophrenia, schizotypal and delusional disorders (F2). Taken into account that the unique number of patients at family doctors due to these diagnoses was 917, one can conclude that one and the same patient has seen family doctor in average 5,6 times during a year what shows regular care of these patients.

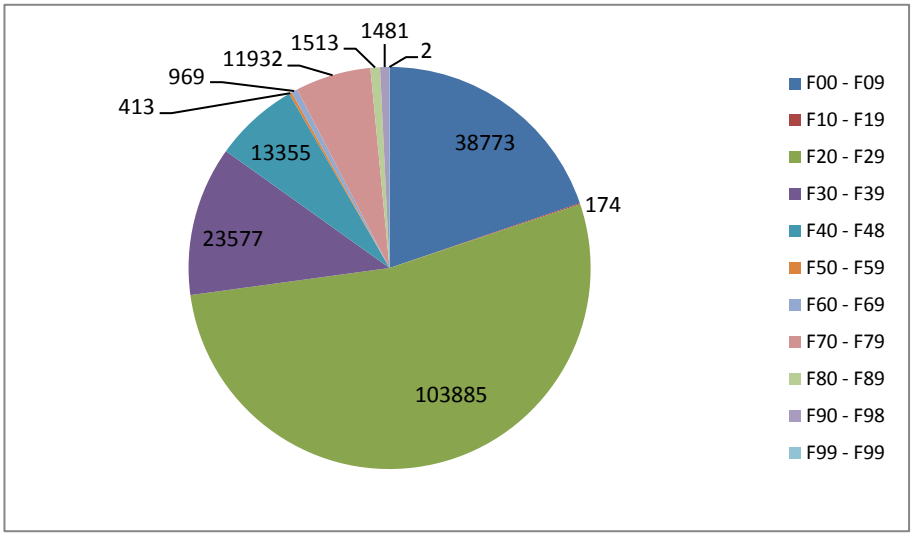
Chart 21. Number of visits at family doctors (primary care physicians) with basic clinical diagnosis of mental and behavioural disorders (in absolute numbers) (2009)



Source: Management Information System, August 17, 2010.

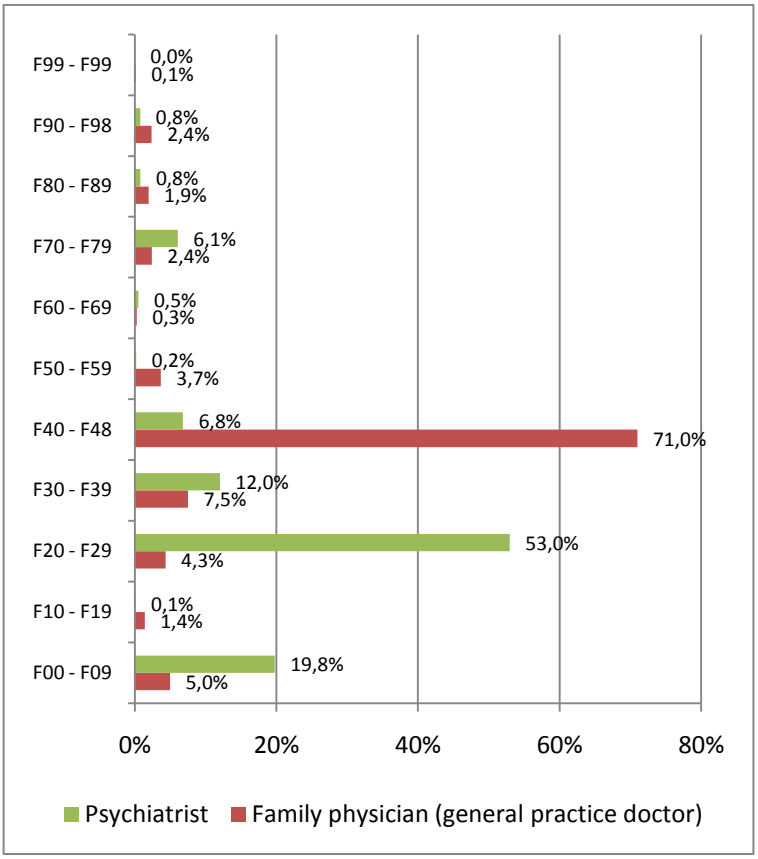
Analyzing the range of diagnosis of visitors at psychiatrist (see Chart 22), one can conclude that approximately one half of visitors were with diagnoses of schizophrenia, schizotypal and delusional disorders. When the number of visits at psychiatrists is compared with unique number of patients with respective group of diagnoses, one can conclude that during a year the same patient with diagnoses of schizophrenia, schizotypal and delusional disorders has seen psychiatrist in average 8,4 times. Apparently, family doctors work more with patients with neurotic, stress-related and somatoform disorders, but episodically, and psychiatrists treat more patients with schizophrenia, schizotypal and delusional disorders, but regularly.

Chart 22. Number of visit at psychiatrist with basic clinical diagnosis of mental and behavioural disorders (in absolute numbers) (2009)



Source: Management Information System, August 17, 2010.

Chart 23. Breakdown of visits by basic diagnosis at psychiatrist and family doctor (general practice physician) (in percent from all visits due to mental and behavioural disorders at psychiatrist or family doctor), Latvia (2009)



Source: Management Information System, August 17, 2010.

Table 7. Capacity of day-care centres for mentally ill patients and number of patients treated there (2009)

Number of places	Number of treated patients			
	children (0-17)		adults (18+)	
	boys	girls	males	females
160	47	26	393	1298

Source: State Statistical Report "Report on work of medical institutions"

4.2. Inpatient care

The inpatient care in 2009 was provided by six mental care hospitals with 2219 adult and 184 children beds (see Table 8 and 9), as well as three mental wards in other general hospitals with 215 adult and 60 children beds.

In 2009 there were 36 049 state-funded admissions with basic clinical diagnosis of mental and behavioural disorders (F00 – F99). 22 304 out of them were in mental care hospitals, 3 174 in hospitals with psychiatric care beds, 10 571 in hospitals without psychiatric care beds (2 187 in hospitals without psychiatric care and substance abuse treatment beds)[28].

From all hospitalized patients in the end of 2009, compulsory treatment orders due to medical causes were issued for 169 of them. By the end of 2009, there were 538 patients who were treated inpatient for over 12 months[29].

World Health Organization's Regional Office for Europe Health for All database (WHO-HFA[30]) collects data on different health-related indicators from countries in European Region. This database provides information on inpatient psychiatric care bed count per 100 000 inhabitants. According to the definition of the Statistical Office of European Commission (Eurostat) and Organization for Economic Cooperation and Development (OECD), psychiatric care bed count includes also beds for substance abuse therapy. Psychiatric care inpatient beds are all beds in mental health and substance abuse treatment hospitals, psychiatric beds in general and in other specialty (not mental health or substance abuse treatment) hospitals. Beds for residential care, long-term nursing care, rehabilitation or palliative care are excluded from the bed count. Thereby substance abuse treatment beds (350) are added to the psychiatric care bed count (2678), resulting in a total psychiatric bed count in Latvia according to the international definition (3028) what gives 134,62 beds per 100 000 inhabitants in Latvia in 2009. It should be noted that there are several countries where this indicator is lower (Denmark 58,52, Czech Republic 104,85, Finland 84,62, France

[28] HPC Management Information System, August 17, 2010

[29] Data source: State Statistical Report "Report on mental health disorders and contingent of mentally ill patients".

[30] World Health Organization's database WHO-HFA, http://data.euro.who.int/hfadb/ (checked on September 5, 2010)

92,24, Estonia 56,84, Lithuania 102,83) or higher (Belgium 181, Malta 157,57, Netherlands 139,66).

Table 8. Average yearly psychiatric bed-day count in mental care hospitals in Latvia (2009).

In total	Adult beds	Children beds
2403	2219	184

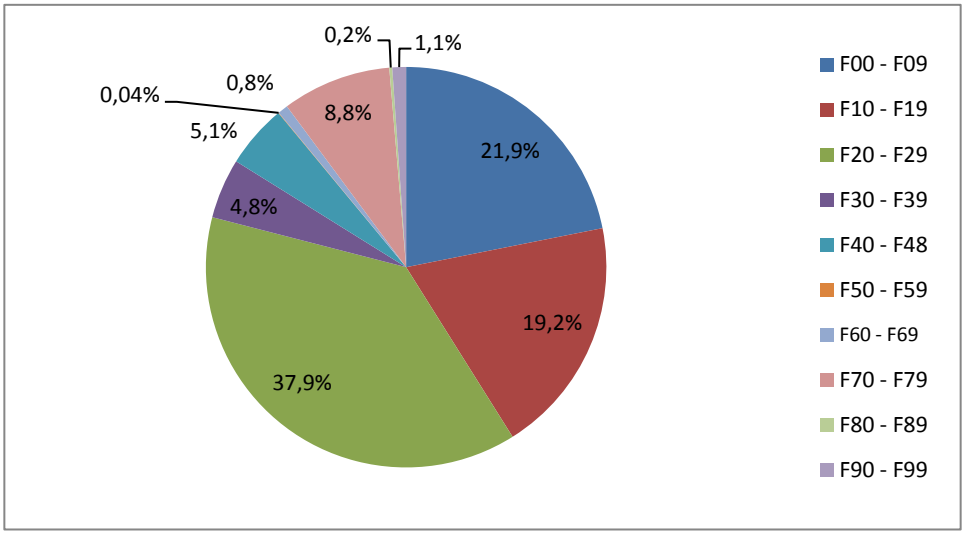
Data source: Inpatient bed fund management database

Table 9. Average yearly psychiatric bed-day count in all hospitals in Latvia (2009).

In total	Adult beds	Children beds
2678	2434	244

Data source: Inpatient bed fund management database

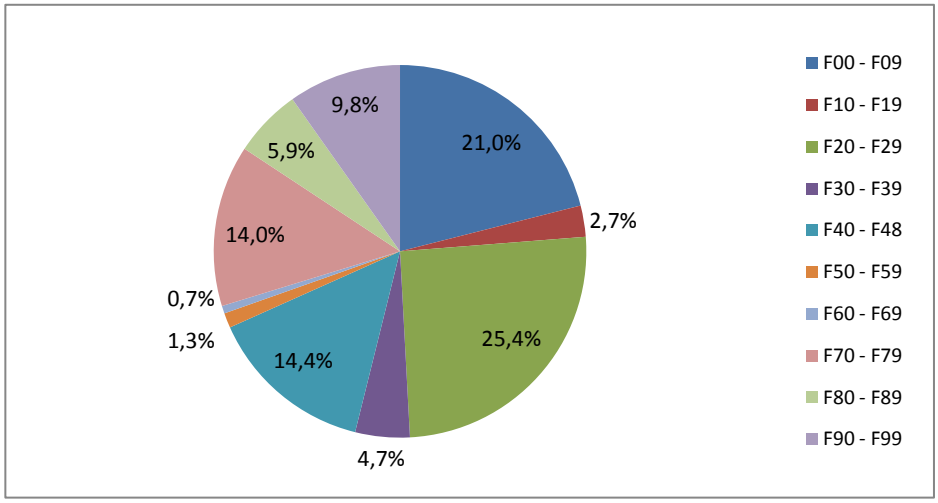
Chart 24. Admission of patients with mental and behavioural disorders in specialized mental care hospitals (breakdown by diagnoses in percent), in Latvia (2009).



Source: Management Information System, August 17, 2010.

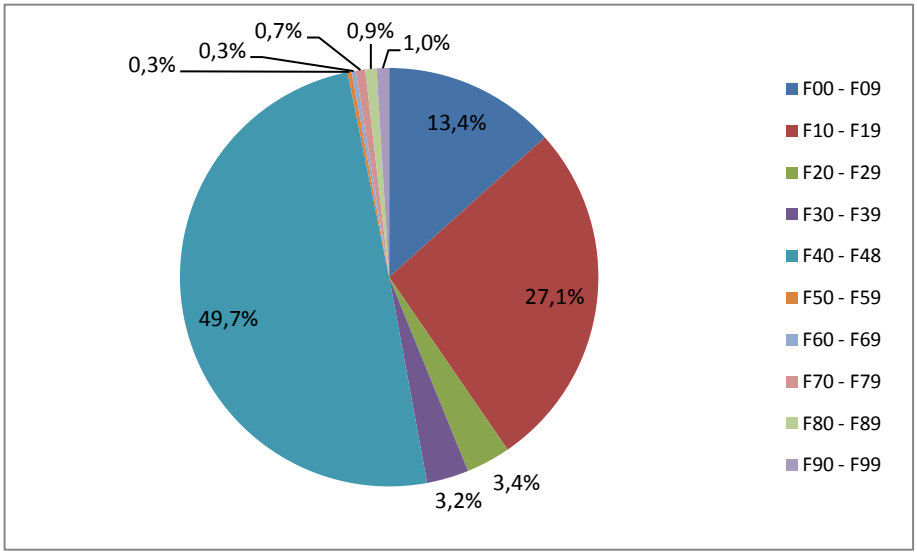
Data on inpatient admissions in mental care hospitals in Latvia show that the highest rates of hospitalization during 2009 were for patients with schizophrenia, schizotypal and delusional disorders (F2), organic mental disorders (F0) and mental and behavioural disorders related to use of psychoactive substances (F1) (see Chart 24).

Chart 25. Admitted patients with mental and behavioural disorders in hospitals with psychiatric beds (breakdown by diagnoses in percent), Latvia (2009).



Source: Management Information System, August 17, 2010.

Chart 27. Admitted patients with mental and behavioural disorders in other hospitals without psychiatric and substance abuse therapy beds (breakdown by diagnoses in percent), Latvia (2009).



Source: Management Information System, August 17, 2010.

An important issue is the patients treated with mental and behavioural disorders (diagnoses from ICD-10 F group) outside mental care hospitals and specialized psychiatric care beds. As seen in Chart 27, half of the patients hospitalized with basic clinical diagnoses from ICD-10 F group in 2009 were admitted with diagnosis of neurotic, stress-related and somatoform disorders. The important proportion of admissions is also due to mental and behavioural disorders related to use

of psychoactive substances (F1). It is possible that the part of the patients with such diagnoses are later transferred to the hospitals with mental health or addiction medicine wards and treated there.

5. Conclusions

1. By the end of 2009, mental and behavioural disorders[31] were registered in 3,1% of the population in Latvia, a bit more than 6% of people had sought for help in outpatient health care institutions due to these disorders during the year. When experience of other countries is taken into account, the real proportion of mental and behavioural disorders in population could be higher.

2. During time period from 2007 to 2009 there is a slight increase in first time registered patients with mental and behavioural disorders in Register.

3. The most prevalent mental and behavioural disorders in our country are schizophrenia, schizotypal and delusional disorders (27,5%), the second place - mental retardation (24,1%) and the third place – organic mental disorders (23,2%), additionally, the prevalence of neurotic, stress-related and somatoform disorders must be taken into account, as they hold only the fourth place according to data from Register, but give the highest outpatient visit number.

4. The peak incidence rates of previously and first time registered patients as well as suicide deaths in 2009 have been observed in Latgale.

5. Study data reveal that complaints on subjective psycho-emotional health disturbances (depression, stress, gloom feeling, irritability, nervousness) depending on gender, age, type and intensity of disorder occur in 38 – 80% of the population in Latvia.

6. Analyzed data of Registers[32] show that dual mental disorders are diagnosed in almost every fifth (18%) treated drug addicted person in Latvia.

7. Suicide mortality in Latvia during last three years is changing, but Latvia still holds the high third place in European Union regarding suicide count per

[31] F00 – F93, excluding F01 – F19.

[32] Register of patients suffering from certain diseases on patients with mental and behavioural disorders and Register of patients suffering from certain diseases on persons with substance abuse and addiction disorders.

100 000 inhabitants and the situation is serious enough to draw a stronger attention to this problem and implement suicide prevention programmes.

8. An actual question is on employment options for persons with mental and behavioural disorders, because work not only improves patient's financial status, but also allows rejoining society.

9. Almost every fifth registered patient with mental and behavioural disorders have problems related to social environment (for instance, unemployment or job loss risk, atypical upbringing, social isolation etc.) which have a negative impact on health condition and care of these patients.

10. When the breakdown by diseases of the first time disability in 2009 is analyzed, mental and behavioural disorders are the second most frequent disability cause for persons younger than 16 years, but in persons older than 16 years they are the fifth most common cause.

11. The highest proportion among all outpatient visits related to mental and behavioural disorders in 2009 was due to neurotic, stress-related and somatoform disorders (34,3%) what most commonly where treated by family doctors. The second most common cause of visits were schizophrenia, schizotypal and delusional disorders (25%) and these patients are usually treated by psychiatrists.

12. Latvia holds the fifth place in European Union regarding the count of psychiatric[33] beds per 100 000 inhabitants.

13. The highest proportion of admissions in specialized mental care hospitals and centres is created by patients with schizophrenia, schizotypal and delusional disorders as well as by patients with organic mental disorders including symptomatic ones, but in the hospitals without mental or substance abuse therapy beds almost half of the patients with diagnosis related to mental and

[33] According to the definition of the Statistical Office of European Commission (Eurostat) and Organization for Economic Cooperation and Development (OECD), psychiatric care bed count includes also beds for substance abuse therapy. As new as possible data from EU member states were used in calculations.

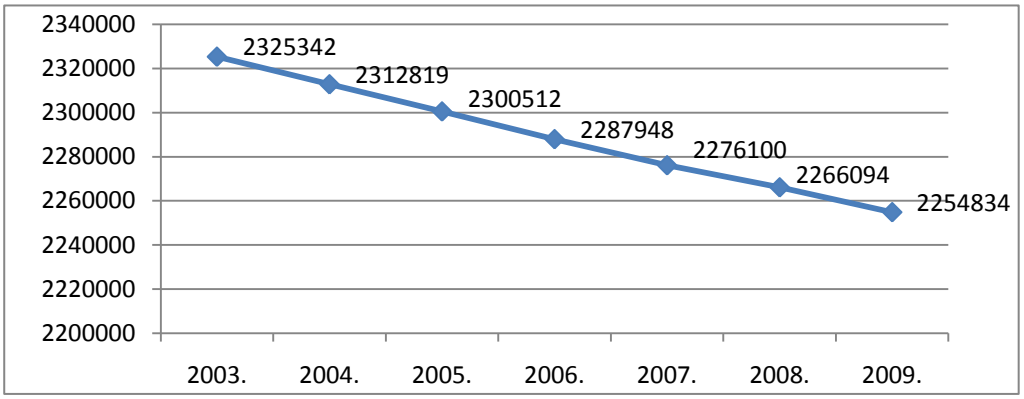
behavioural disorders have been admitted to hospital due to neurotic, stress-related and somatoform disorders, but more than one fourth (27,1%) – due to mental and behavioural disorders related to use of psychoactive substances.

Recommendations

1. To plan and implement campaigns for early recognition of mental and behavioural disorders (for instance, awareness of depression symptoms, drawing attention of family members to changes in patient's health status) and reduction of prejudice against persons with mental and behavioural disorders, aimed at targeted and timely interventions and decreasing the suicide rates in Latvia.
2. To continue analysis of the proportion of work done by family physicians (primary care doctors) in the care of patients with mental and behavioural disorders.
3. To develop and improve guidelines for family doctors (primary care physicians) on diagnostics and treatment of the patients with mental and behavioural disorders, as well as to elaborate the protocol for cooperation with psychiatrists (indications for consultation or referral of patients to a psychiatrist).
4. When social and economic support measures are planned, regional differences in prevalence of mental and behavioural disorders and suicides must be taken into account (for example, Latgale region).
5. To continue targeted and more active development of outpatient care institutions and to implement new patient care services (home care, case management, ergotherapy services) aimed to reduce the proportion of inpatient care in psychiatry and to decrease inpatient bed count.
6. To promote complex and integrated approach to mental care problem reduction, elaborating chronic disease management programs, multi-level care schemata (patient flows), guidelines for successful reduction of mental health problems and targeted use of financial means.

Appendix

Chart 27. Average number of inhabitants, Latvia (2003 – 2009)



Source: Central Statistical Bureau of Latvia.

Table 10. Average number of inhabitants (breakdown by gender), Latvia (2003 – 2009)

	2003	2004	2005	2006	2007	2008	**2009**
Average per year	2325342	2312819	2300512	2287948	2276100	2266094	**2254834**
Including:							
Males	1070697	1065627	1060101	1054159	1048969	1045012	**1040285**
Females	1254645	1247192	1240411	1233789	1227131	1221082	**1214549**

Source: Central Statistical Bureau of Latvia.

Table 11. Average number of inhabitants in statistical regions of Latvian Republic[34] (2003 – 2009)

Region[35]	2003	2004	2005	2006	2007	2008	**2009**
Latvia	2325342	2312819	2300512	2287948	2276100	2266094	**2254834**
Riga	737237	733502	729670	725032	719928	715194	**709715**
Riga region	361425	364680	367724	371284	376773	382927	**387400**
Vidzeme	249594	246814	244232	241693	239073	236689	**234573**
Kurzeme	314444	312003	309553	307243	304837	302620	**300563**
Zemgale	290657	289070	287280	285538	284076	282706	**280869**
Latgale	371985	366750	362053	357158	351413	345958	**341714**

Source: Central Statistical Bureau of Latvia.

[34] All rates in tables are calculated per average number of inhabitants in respective year (excluding registered patients per 100 000 inhabitants which have been calculated per number of permanent residents in Latvia by the end of year).

[35] Composition of the state statistic regions is indicated according to the Cabinet of Ministers Regulations No. 271 of April 28, 2004 „"On statistical regions of Republic of Latvia and administrative units included in them", with changes on June 3, 2009.

Table 12. Age structure of inhabitants (breakdown by five-year age groups), Latvia (2003 – 2009)

Age group	2003	2004	2005	2006	2007	2008	**2009**
0 - 4	98042	100025	101411	103732	107381	110843	**113148**
5 - 9	103338	97735	95274	94707	95441	97629	**99534**
10 - 14	163193	151200	138296	125066	112564	102839	**97051**
15 - 19	186935	185540	183168	178654	171502	161882	**149997**
20 - 24	167564	172749	176913	180856	184491	185545	**183897**
25 - 29	159745	159143	158915	159527	161604	165792	**170394**
30 - 34	161660	161971	161828	160530	158896	157689	**156510**
35 - 39	159015	156963	156792	157853	158859	159190	**158919**
40 - 44	177069	173973	169270	163803	159160	155764	**153459**
45 - 49	163081	166907	169538	171880	172624	171229	**168324**
50 - 54	148520	147553	148100	149577	151531	155465	**159334**
55 - 59	123332	126582	131498	135990	138769	138928	**138083**
60 - 64	141380	134195	126107	117978	112903	112478	**115653**
65 - 69	122005	126071	129201	130549	129327	124815	**118520**
>70	250463	252212	254201	257246	261048	266006	**272011**

Source: Central Statistical Bureau of Latvia.