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# Analysis of psychiatric services provided to adults in 2010–2014 based on the National Health Fund data

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**Summary**

**Aim.** Analyzing the indices that allow to improve population health by, for example, improving the quality of healthcare services and increasing accessibility to these services is among the priorities of the World Health Organization (WHO). This is of particular importance in Poland, as the psychiatric care reform is being carried out in accordance with the National Mental Healthcare Program guidelines.

The aim of the study is to analyze mental health services provided to adults and reported to the National Health Fund in 2010–2014.

**Methods.** In the present study, we expanded the information included in the second part of the maps of health needs. In addition to the evaluation of services provided to adults in 2014, we presented an analysis of services in 2010–2014. According to these data, there was a continuous increase both in the number of individuals provided with services for psychiatric disorders and in the total number of provided services. There was an increase in the number of patients treated for mood disorders, neurotic disorders, stress-related and somatic disorders, as well as addictions.

**Results.** The increase in the total number of services was mainly seen for outpatient types of care. The reasons why in 2014 there was a resurgence in psychiatric hospitalizations and in the hospitalization rate per 100 thousand adults remains unclear.

**Conclusions.** Our results indicate the need for further support of the development of psychiatric care using multidirectional efforts within an integrated model for solving health problems. An overall analysis of services provided in psychiatric care requires access to information on services funded from non-public sources and expanding the reported information.

**Key words**: psychiatric services in Poland, maps of health needs

## Introduction

Results of a study conducted in 27 EU member states, Switzerland, Island and Norway [1] show that each year 164.8 million inhabitants (38.2%) suffer from psychiatric disorders. According to a previous study [2], individual, social and economic costs generated by these disorders are higher than those associated, for instance, with diabetes mellitus or cancer. Psychiatric disorders are the fourth most common medical cause of disability [3]. They may lead to social exclusion [4] or premature death due to suicide [5] or somatic co-morbidities [6]. In this context, from the viewpoints of public health, mental health care, health policy and social policy, it is advisable to systematically examine epidemiological indicators. Improving the quality of healthcare services and increasing accessibility to these services is among the priorities of the World Health Organization (WHO). This is of particular importance in Poland, as the psychiatric care reform is being carried out in accordance with the National Mental Health Program guidelines [7, 8].

No systematic epidemiological studies of psychiatric disorders in the general population in Poland have been carried out. The study entitled: *The epidemiology of psychiatric disorders and access to mental healthcare: EZOP Poland* [9, 10] was conducted in a random sample of 10,000 inhabitants using the Composite International Diagnostic Interview (CIDI). The study estimated the lifetime prevalence of selected psychiatric disorders according to the DSM-IV classification: alcohol abuse, alcohol dependence, substance abuse (excluding alcohol and nicotine), substance dependence (excluding alcohol and nicotine), major depression, minor depression, dysthymia, bipolar I disorder, bipolar II disorder, mania, hypomania, panic attacks, agoraphobia with or without panic attacks, panic disorder, specific phobias, social phobia, generalized anxiety disorder. In 2017, the study entitled: *A comprehensive evaluation and determinants of mental health in the society (EZOP II)* was started. One of its aims is to evaluate the lifetime prevalence of psychotic disorders.

The available data on the prevalence of all psychiatric disorders and on the provided services originate from statistical yearbooks published by the Institute of Psychiatry and Neurology in Warsaw, Poland. These yearbooks are based on data from the reports that are sent in annually by healthcare facilities in the form of official documents [11]. Another source of information on psychiatric and behavioral disorders among the inhabitants of Poland and on the provided services are cyclical reports prepared by

the National Institute of Public Health – National Institute of Hygiene based on the information provided in the Public Statistics [12, 13].

In 2016, the Ministry of Health published documents entitled: *Maps of Health Needs* [14], where psychiatric disorders are among the analyzed groups of diseases. The aim of the maps is to evaluate the ongoing and forecast health needs of the general population. According to the relevant act of the Polish parliament [15] (Dz. U. (Journal of Laws) of 2014, item 1138), the maps are intended for establishing priorities for regional healthcare policy and issuing opinions on investment feasibility. They should be taken into account by the provincial branches of the National Health Fund when preparing the plan for commissioning healthcare services. Maps of health needs have been prepared for each province of Poland and consist of three parts: demographic and epidemiological aspects; an analysis of the state and utilization of the resources; and forecasts. The first part, among other things, includes information on estimating epidemiological indicators, morbidity rates and mortality rates. The second part provides information on the healthcare services provided to adults and children that were reported to the National Health Fund (NFZ) in 2014. The third part provides a forecast of registered incidence.

## Aim

The aim of the present publication is to analyze mental health services provided to adults and reported to the National Health Fund, the Polish public payer, in 2010–2014.

## Material and methods

In the present study, we expanded the information included in the second part of the maps of health needs: in addition to the evaluation of services provided to adults in 2014, we presented an analysis of services in 2010–2014 in aggregate.

Like the maps of health needs, the present study was based on the National Health Fund database which includes patient's ID (the PESEL number (the officially assigned personal identification number of Polish citizens and residents)) and information on the services provided to the patient throughout Poland. Services in psychiatric care were defined as services reported to the National Health Fund under contracts between service providers and the public payer for the provision of psychiatric care and treatment of addictions in inpatient and outpatient settings. We additionally included services whose main reasons for provision were diagnoses "Mental and behavioral disorders" (i.e., ICD-10 diagnostic codes starting with the letter F).

We excluded information about services provided in primary care facilities due to the low quality of the reported data. In contrast to what was the case with the maps of health needs, we did not analyze information about services provided under contracts other than those for the provision of psychiatric care and treatment of addictions (e.g., services for psychiatric disorders provided on neurology wards) due to their insufficient number.

Our analysis concerns services provided to adults, i.e., individuals who, according to their date of birth, were at least 18 years of age in the year of completion of service provision.

For the purposes of the present analysis the diagnoses of psychiatric disorders according to ICD-10 were divided into the following 9 groups with the following diagnostic codes:

1) Organic disorders (F00–F07, F09);
2) Addictions (F10–F19, F63);
3) Schizophrenia (F20, F21, F25);
4) Psychoses other than schizophrenia (F22–F24, F28–F29);
5) Mood disorders (F30–F34, F38–F39);
6) Neurotic disorders, stress-related disorders and somatic disorders (F40–F45, F48);
7) Disorders of adult personality and behavior (F60–F62, F68, F69);
8) Mental retardation (F70–F79);
9) Other, including: eating disorders (F50), behavioral syndromes associated with physiological abnormalities and physical factors (F51, F53–F55, F59), gender identity disorders and disorders of sexual preferences (F52, F64–F66), disorders of psychological development (F80–F84, F88, F89), sexual dysfunction disorders, behavioral and emotional disorders with onset usually occurring in childhood and adolescence (F90–F95, F98), and mental disorder, not otherwise specified (F99).

The reported services were analyzed according to the site of service provision. The organizational unit was identified based on codes [16] according to the following categories:

– Outpatient psychiatric care (codes: 1700, 1701, 1703, 1704, 1705, 1706, 1707, 1708, 1710, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1780, 1790, 1791);
– 24-hour psychiatric ward (codes: 4700, 4701, 4704, 4705, 4707, 4710, 4712, 4714, 4716, 4740, 4741, 4742, 4744, 4746, 4747, 4748, 4754);
– Psychiatric rehabilitation (codes: 4702, 4703, 4750, 4751, 4756);
– Forensic psychiatry (codes: 4730, 4732, 4733, 4736, 4737);
– Psychiatric daycare ward (codes: 2700, 2701, 2702, 2703, 2704, 2706, 2708, 2712, 2713, 2714, 2715, 2740);
– Community mental health team (CMHT) (codes: 2730, 2731, 2732, 2733, 2734);
– Psychiatric hostel (codes: 2720, 2721, 2724, 2726);
– Treatment and care facility (TCF)/Care and nursing facility (CNF) (codes: 5162, 5163, 5171, 5172, 5173).

In the analysis of the services, 24-hour psychiatric ward, treatment and care facility (TCF)/care and nursing facility (CNF), forensic psychiatry, psychiatric hostel and psychiatric rehabilitation, the services are classified as hospitalization. In cases of outpatient psychiatric care, community mental health team, and emergency room/A&E

department, the services are classified as consultation. In the case of the psychiatric daycare ward, one service means a cycle of separate consultations at daycare wards with no more than 7 days between the end of one consultation and the beginning of another.

We took into account basic demographic parameters of the patients – sex, age and place of registered residence. The distinction between the city and the country was made on the basis of the third digit of the third part of the territorial identifier [17]. The 'city' category comprised those territorial units whose third digit of the third part of the territorial identifier was 1, 4, 6, 7, 8 or 9. In the case of the country, the third digit was 2, 3 or 5.

## Results

### Patients – selected indicators

The number of patients for whom psychiatric services were reported in 2010–2014 is provided in Diagram 1.

In 2014, almost 1.5 million patients (approximately 5% of the adult population) were reported to have received services for mental disorders and behavioral disorders. In 2010–2014, a gradual increase (of 12%) is notable in the number of patients receiving various forms of psychiatric care. These were patients who mainly used the services of specialist clinics – approximately 97% of the patients in 2010 and approximately 96% of the patients in 2011–2014 received outpatient psychiatric services on at least one occasion. Approximately 19% of the patients in 2010–2011 and approximately 18% in 2012–2014 stayed on at least one occasion at a 24-hour psychiatric ward.

The demographic structure of patients, according to sex and place of registered residence, who used all the forms of psychiatric care analyzed in our study in 2010–2014 is provided in Table 1.

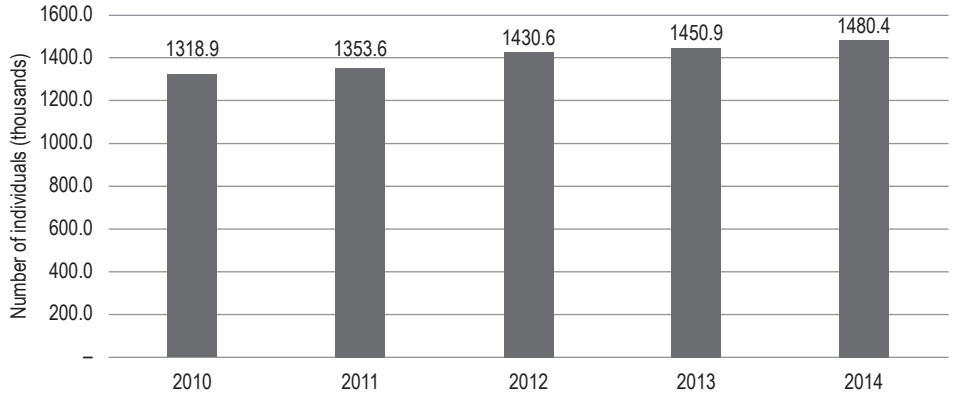


Diagram 1. **Number of individuals (thousands) provided with services for psychiatric disorders within the public payer system in 2010–2014**

Table 1. **Sex and place of registered residence of patients who in 2010–2014 used all the forms of psychiatric care analyzed in the present study**

| Year | Sex | | Place of registered residence | |
|---|---|---|---|---|
| | % of females | % of males | % of patients with the place of registered residence in a city | % of patients with the place of registered residence in the country |
| 2010 | 54.5 | 45.5 | 70.9 | 29.1 |
| 2011 | 55.2 | 44.8 | 70.3 | 29.7 |
| 2012 | 56.2 | 43.8 | 70.1 | 29.9 |
| 2013 | 56.3 | 43.7 | 69.7 | 30.3 |
| 2014 | 56.4 | 43.6 | 68.9 | 31.1 |

In 2010–2014, the proportion of women and men provided with psychiatric services was generally stable (nearly 56% of women and 44% of men). An overwhelming majority of beneficiaries (nearly 70%) were registered residents of cities and over the years of interest this proportion remained stable.

We then determined the number of patients who in 2010–2014 used all the forms of psychiatric care analyzed in the present study, according to the diagnosis. The percentages are given in Table 2 and the nominal values are provided in Diagram 2.

Table 2. **Percentage distribution of patients according to diagnosis in 2010–2014**

| Diagnostic group | Year | | | | |
|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 |
| Neurotic disorders, stress-related disorders and somatic disorders | 28% | 27% | 27% | 27% | 28% |
| Mood disorders | 17% | 19% | 21% | 20% | 20% |
| Addictions | 18% | 17% | 16% | 17% | 17% |
| Organic disorders | 16% | 16% | 16% | 16% | 16% |
| Schizophrenia | 12% | 12% | 11% | 11% | 11% |
| Mental retardation | 4% | 4% | 4% | 4% | 4% |
| Other | 2% | 2% | 2% | 2% | 2% |
| Disorders of adult personality and behavior | 2% | 2% | 2% | 2% | 2% |
| Psychoses other than schizophrenia | 2% | 2% | 1% | 1% | 1% |

In 2014, the most numerous group of patients for whom services under the National Health Fund were reported in all the analyzed forms of psychiatric care were patients with the diagnosis of neurotic disorders, stress-related disorders and somatic disorders (28%). Mood disorders ranked second in terms of number of patients (20%), followed by addictions (17%), organic disorders (16%), and schizophrenia (11%). These proportions were stable over the analyzed years.

In 2010–2014, a gradual increase is notable in the number of patients with the diagnosis of mood disorders (an increase of 36% – 110.5 thousand patients), disorders

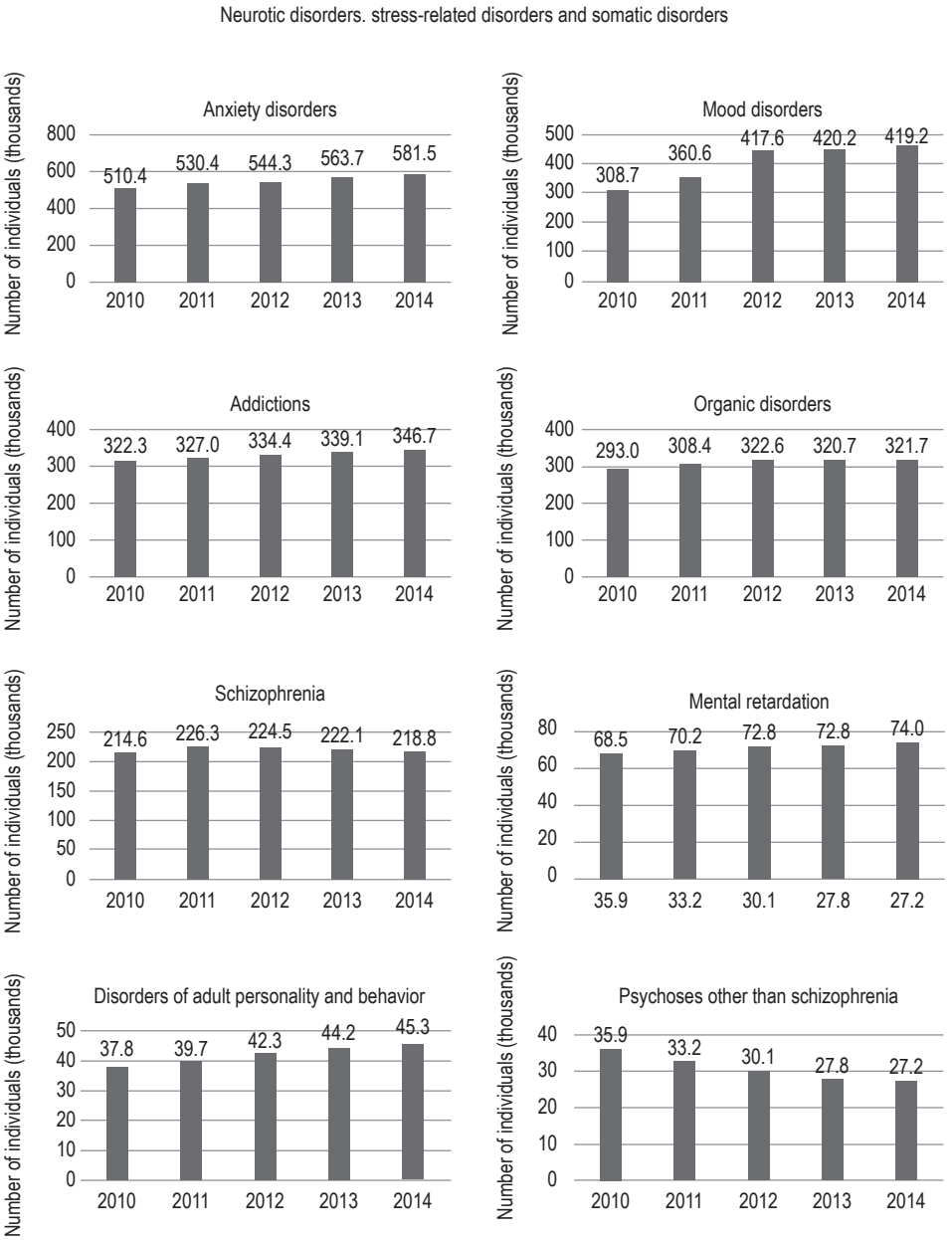


Diagram 2. **Number of patients according to diagnosis in 2010–2014**

of adult personality and behavior (an increase of 20% – 7.5 thousand patients), neurotic disorders, stress-related disorders and somatic disorders (an increase of 14% – 71.7 thousand patients), organic disorders (an increase of 10% – 28.7 thousand patients), and addictions (an increase of 8% – 24.3 thousand patients). A gradual decrease is notable in the number of patients with the diagnosis of a psychosis other than schizophrenia (a decrease of 24% – 8.7 thousand patients).

The number of patients over the years of interest according to sex and diagnosis is provided in Table 3.

Table 3. **Number of patients (thousands) according to sex and diagnosis in 2010–2014**

| Year | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Diagnostic group | Sex | | | | | | | | | |
| | F | M | F | M | F | M | F | M | F | M |
| Schizophrenia | 113.2 | 101.5 | 119.7 | 106.5 | 118.4 | 106.1 | 116.3 | 105.8 | 113.7 | 105.1 |
| Mood disorders | 224.9 | 83.8 | 263.1 | 97.5 | 306.8 | 110.8 | 307.6 | 112.6 | 306.8 | 112.4 |
| Organic disorders | 151.3 | 141.7 | 162.7 | 145.6 | 173.2 | 149.5 | 172.1 | 148.5 | 173.2 | 148.5 |
| Mental retardation | 29.9 | 38.6 | 30.7 | 39.5 | 32.0 | 40.8 | 32.1 | 40.7 | 32.7 | 41.3 |
| Psychoses other than schizophrenia | 21.1 | 14.9 | 19.8 | 13.4 | 17.8 | 12.3 | 16.4 | 11.4 | 15.7 | 11.6 |
| Addictions | 67.4 | 255.0 | 69.8 | 257.3 | 72.8 | 261.6 | 74.5 | 264.6 | 75.0 | 271.7 |
| Neurotic disorders, stress-related disorders and somatic disorders | 342.7 | 167.7 | 357.1 | 173.2 | 371.1 | 173.2 | 384.8 | 178.9 | 400.3 | 181.2 |
| Disorders of adult personality and behavior | 18.4 | 19.4 | 20.1 | 19.6 | 22.4 | 20.0 | 23.8 | 20.4 | 24.7 | 20.7 |

During the years of interest, a markedly higher number of women was observed in the group of beneficiaries with the following diagnosis: mood disorders (2.7-fold more women than men), neurotic disorders, stress-related disorders and somatic disorders (2.2-fold more women than men), psychoses other than schizophrenia (1.35-fold more women than men), personality disorders (1.19-fold more women than men) and organic disorders (1.17-fold more women than men). A higher number of men, on the other hand, was observed among the patients with the following diagnosis: addictions (3.6-fold more men than women) and mental retardation (1.2-fold more men than women).

Median age of the patients according to diagnostic group is provided in Table 4.

Table 4. **Median age of the patients according to diagnostic group in 2010–2014**

| Diagnostic group | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|
| Schizophrenia | 47 | 47 | 48 | 48 | 48 |
| Mood disorders | 53 | 53 | 53 | 53 | 54 |
| Organic disorders | 59 | 60 | 62 | 62 | 63 |
| Mental retardation | 37 | 37 | 37 | 37 | 37 |
| Psychoses other than schizophrenia | 52 | 53 | 53 | 53 | 53 |
| Addictions | 43 | 43 | 43 | 42 | 42 |
| Neurotic disorders, stress-related disorders and somatic disorders | 44 | 43 | 43 | 43 | 43 |
| Disorders of adult personality and behavior | 32 | 32 | 33 | 33 | 33 |

The youngest group was the group of patients with the diagnosis of disorders of adult personality and behavior and the oldest one was the group of patients with the diagnosis of organic disorders; in 2014, the difference in the mean age between these groups was 30 years. The greatest changes in the median age of the patients was observed in the organic disorders group (an increase of 4 years in 2010–2014).

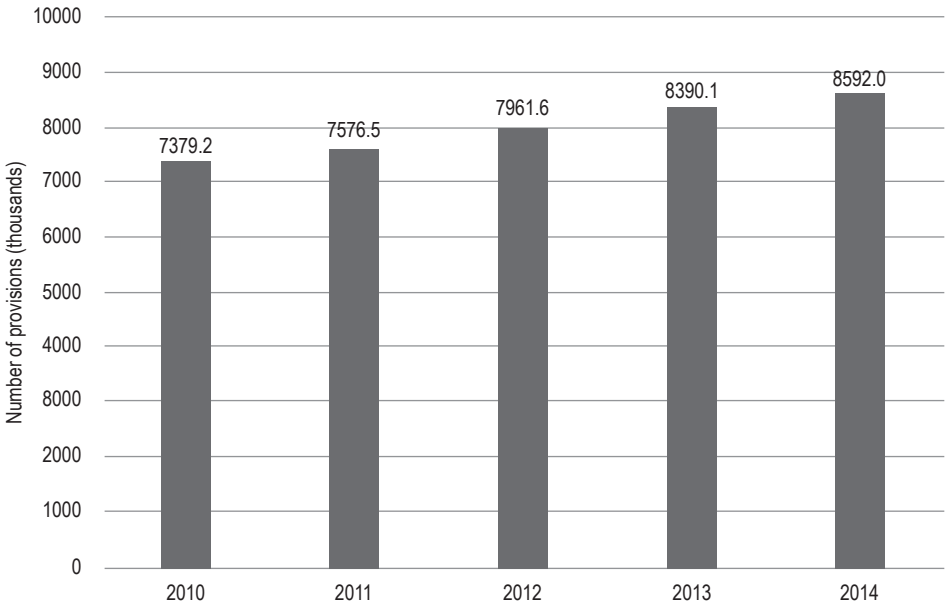


Diagram 3. **The total number of psychiatric services (thousands) provided in 2010–2014**

Selected organizational indicators

Information on the services reported for patients in all the analyzed forms of care is provided in Diagram 3.

The number of services provided to patients due to psychiatric disorders gradually increased in years 2010–2014, reaching nearly 8.6 million in 2014, constituting a nearly 16% increase compared to the year 2010.

The number of services reported in years 2010–2014 according to the site of service provision is given in Table 5.

Table 5. **Number of psychiatric services (thousands) according to the site of service provision in 2010–2014**

| Setting | Organizational form of healthcare provision | 2010 | 2011 | 2012 | 2013 | 2014 | % change in 2010–2014 |
|---|---|---|---|---|---|---|---|
| Inpatient setting | 24-hour psychiatric ward | 278.7 | 260.8 | 252.5 | 253.3 | 258.0 | -7 |
| | emergency room/A&E department | 31.8 | 35.9 | 43.0 | 45.4 | 49.5 | 56 |
| | psychiatric rehabilitation | 11.0 | 9.8 | 9.9 | 10.4 | 10.3 | -6 |
| | forensic psychiatry | 2.0 | 2.2 | 2.4 | 2.7 | 2.9 | 46 |
| | TCF/CNF | 8.6 | 8.0 | 7.7 | 6.8 | 7.2 | -15 |
| | psychiatric hostel | 0.7 | 0.7 | 0.8 | 1.0 | 1.0 | 42 |
| Outpatient setting | outpatient psychiatric care | 6,880.2 | 7,058.9 | 7,419.9 | 7,787.4 | 7,948.5 | 16 |
| | CMHT | 97.9 | 133.0 | 187.5 | 244.8 | 269.8 | 175 |
| | daycare ward | 28.8 | 32.4 | 37.2 | 39.6 | 46.0 | 60 |
| TOTAL | | 7,397.2 | 7,576.5 | 7,961.6 | 8,390.1 | 8,592 | 16 |

The line 'TOTAL' provides the number of services without division into the categories listed in the table.

Over the years 2010–2014, the largest number of services was provided in outpatient psychiatric care (nearly 90%), 24-hour psychiatric wards (3–4%) and community mental health teams (1–3%). Of note is the strong upward trend – of 175% in the services provided by community mental health teams, a relatively strong upward trend – of 60% in the services provided by daycare wards and an upward trend – of 56% in the services provided in emergency rooms/A&E departments. There was a decrease of 15% in the number of services provided in treatment and care facilities (TCFs)/care and nursing facilities (CNFs), and a slight decrease – of 7% in 24-hour psychiatric wards and of 6% in psychiatric rehabilitation.

The number of services per patient provided in 2010–2014 according to the form of care is provided in Table 6.

Table 6. **Number of services per patient provided in 2010–2014 according to the form of care**

| Setting | Form of care | 2010 | 2011 | 2012 | 2013 | 2014 | % change in years 2010–2014 |
|---|---|---|---|---|---|---|---|
| Inpatient setting | 24-hour psychiatric ward | 1.47 | 1.36 | 1.33 | 1.34 | 1.34 | -8 |
| | emergency room/A&E department | 1.2 | 1.22 | 1.23 | 1.24 | 1.24 | 3 |
| | psychiatric rehabilitation | 1.48 | 1.41 | 1.36 | 1.35 | 1.31 | -12 |
| | forensic psychiatry | 1.12 | 1.13 | 1.12 | 1.18 | 1.15 | 3 |
| | TCF/CNF | 1.41 | 1.26 | 1.17 | 1.13 | 1.13 | -20 |
| | psychiatric hostel | 1.23 | 1.23 | 1.22 | 1.24 | 1.2 | -2 |
| Outpatient setting | outpatient psychiatric care | 5.68 | 5.69 | 5.66 | 5.87 | 5.89 | 4 |
| | CMHT | 16.21 | 13.55 | 11.58 | 11.86 | 11.76 | -27 |
| | daycare ward | 1.14 | 1.37 | 1.17 | 1.22 | 1.13 | -0.3 |
| TOTAL | | 5.59 | 5.60 | 5.57 | 5.78 | 5.80 | 4 |

The line 'TOTAL' provides the number of services without division into the categories listed in the table.

In 2010–2014, each patient received on average 6 services per year, mainly in the outpatient psychiatric care, where the services were provided to each patient every two months on average. In 2010, the highest average number of services per patient was observed for community mental health teams, however, by 2014 this number decreased by 27%.

Diagram 4 provides information on hospitalizations in 2010–2014. Separation of this group of services results from the increasing burden on the system caused by this form of care. It is notable that these are all hospitalizations reported to the National Health Fund at 24-hour psychiatric wards (88%), psychiatric rehabilitation wards (3.3%), psychiatric daycare wards (2.6%), and treatment and care facilities and care and nursing facilities (2.1%). Hospitalizations at organizational units other than those listed above accounted for 4% of all hospitalizations.

In 2010–2012, the number of psychiatric hospitalizations gradually decreased. In 2013 it was on the same level as in 2012, then increased again in 2014 but did not reach the values from 2010–2011.

The number of hospitalizations per 100 thousand of adults during the years of interest is provided in Diagram 5.

The number of hospitalizations per 100 thousand of adults in 2010–2014 gradually decreased until 2013 but increased in 2014 without reaching the value from 2010–2011. The total decrease in 2010–2013 was 8%.

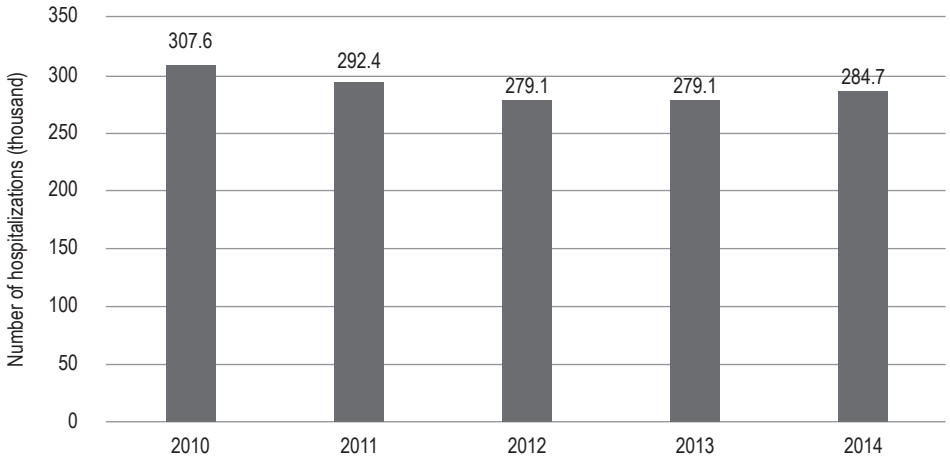


Diagram 4. **Number of hospitalizations (thousands) in 2010–2014**

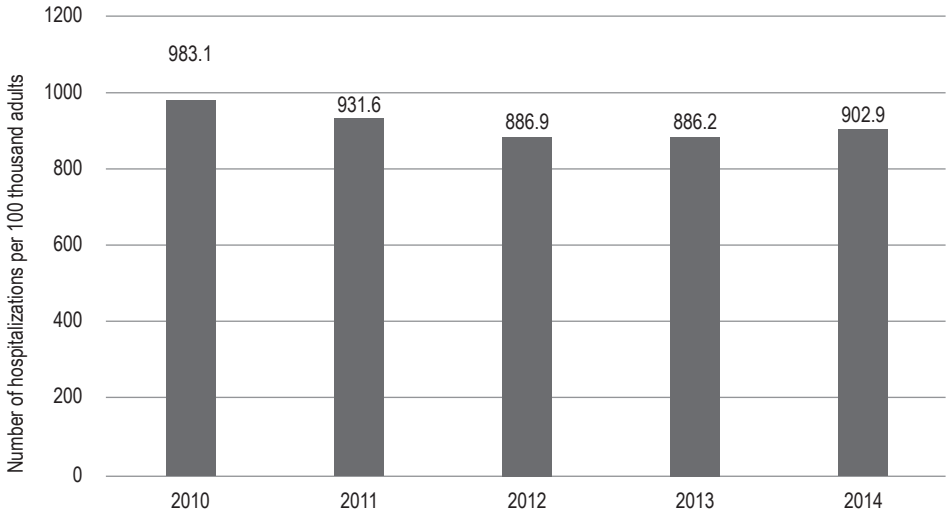


Diagram 5. **Number of hospitalizations per 100 thousand adults in 2010–2014**

## Discussion

Analyzing the indices that allow to improve population health by, for example, improving the quality of healthcare services and increasing accessibility to these services is among the priorities of the World Health Organization (WHO) [18]. In our opinion, this is of particular importance in Poland, as the psychiatric care reform is being carried out in accordance with the National Mental Health Program guidelines.

The statutory guarantee of future editions of the National Mental Health Program [7, 8] offers a chance of accelerating the process of transformation and changes in mental health care resources with the view to "providing patients suffering from psychiatric disorders with wide-range and generally accessible healthcare close to their place of residence, and with other forms of care and assistance necessary to function in their family and social environment" [8]. In this context, the results of our study – an analysis of mental health services reported to the National Health Fund – are of practical importance.

According to the analysis of services reported to the National Health Fund in 2010–2014, there was a gradual increase in the number of individuals provided with services for psychiatric disorders (of 12% over the period of five years) and in the total number of provided services (of nearly 16% in the respective period of time). Also, an analysis focused on the groups of diagnoses for which the services had been provided revealed an increase in the number of patients receiving treatment for mood disorders, neurotic disorders, stress-related disorders and somatic disorders, and addictions. The data reported to the payer lack information that would allow us to unequivocally interpret our results: we could only suspect that economic and social situation in Poland could have affected these results.

Over the years of interest, there were considerable differences in the number of women and men receiving psychiatric care – with a predominance of women (nearly 56% of all the beneficiaries). These differences are also observed in other countries [19]. Therefore there is the need to take these factors into account (to profile services by diagnosis and sex) when organizing psychiatric healthcare.

The fact that patients with their registered address in an urban area made up a much more numerous group (nearly 70%) among the patients – even though this percentage roughly reflects the distribution of the population between city dwellers (nearly 60%) and those living in the country (40%) [20] – may still suggest an easier access to specialist services in urban agglomerations. Over the five years of interest, this proportion was maintained, which suggests that there was little change in this area of psychiatric care.

The increase in the total number of services in 2010–2014 was mainly seen for outpatient types of care, such as day hospitals, community mental health teams and outpatient clinics (with patients using the services of the latter every 2 months on average). Of note is the upward trend of 175% in the services provided by community mental health teams. This could have been regarded as an indicator of positive organizational changes in the form of providing services in the patient's environment, had it not been for the fact, which is difficult to interpret, the absolute number of psychiatric hospitalizations (284.7 thousand) and the number of hospitalizations per 100 thousand adults (902.9) rose in 2014 after a downward trend in the previous years. For the sake of comparison, in Germany, the number of hospitalizations per 100 thousand individuals aged 15 years or older, according to Eurostat data (2015), exceeded 1800. The high value of this index results, however, from the nature of the system [21] – the care of patients with psychiatric disorders as part of inpatient care is largely provided on rehabilitation wards, in sanatoria and in supported accommodation (in 2000,

only 57% of beds were located in facilities with 24-hour medical care). In the United Kingdom, on the other hand, the number of hospitalizations per 100 thousand people is among the lowest in the EU (reported at approximately 300), which is due to the deinstitutionalization of psychiatric care and the development of community care [22]. In 2010–2014, between 3 and 4% of all services were provided in 24-hour psychiatric wards, with nearly 20% of adult patients for whom any services for psychiatric disorders were reported having been hospitalized at least once in a given year. Of note is the fact that in the United Kingdom in December 2014, only 2.4% of patients were using the services of inpatient care [23], while the percentage in Poland was as high as 14.4% (taking into account all the patients, both adults and children).

The main limitation of the analysis presented here is the fact that it only takes into account information included in the reports for the public healthcare services payer, the National Health Fund. The main purpose of the databases created by the payer is to correctly settle provided services and to create financial plans for the coming years. These databases only contain very basic sociodemographic variables, incomplete medical information (without co-morbidity and treatment information, for example) and only partial organizational information. In this context, generation of epidemiological indices and evaluation of service quality are limited.

## Conclusions

1. Based on the information reported to the public payer, an increase in the number of individuals provided with services for psychiatric disorders and in the total number of provided services was observed in 2010–2014.
2. The continuous increase in the number of patients with the diagnosis of mood disorders, neurotic disorders, stress-related disorders and somatic disorders, and addictions indicates the need to increase the number of facilities providing profiled care and to increase their resources.
3. The differences in the number of women and men receiving psychiatric services indicates the need to diversify the offer so that it takes into account gender sensitivity (gender mainstreaming).
4. Based on the available data it is impossible to establish why in 2014 there was a resurgence in psychiatric hospitalizations and in the hospitalization rate per 100 thousand adults.
5. An overall analysis of services provided in psychiatric care requires access to information on services funded from non-public sources and expansion of the reported information.
6. Our results demonstrate the need to support the development of psychiatric care using multidirectional efforts within an integrated model for solving health problems.

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