Mental Health In Austria

Selected Annotated Statistics From the Austrian Mental Health Reports 2001 and 2003
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Mental Health in Austria

Mental Health has become a major issue globally, not only within the European Health Policy and not only because of the World Health Day 2001, which was entitled with "Stop exclusion - Dare to Care" and committed to the 400 million human beings with mental disorders. Mental disorders today represent five of the ten leading causes of disability and are closely linked to overall quality of life.

The Federal Ministry of Health and Women is proud to present this report, which is the summary of the Austrian Mental Health Reports 2001 and 2003.

In the 1970ies we had thirteen mental hospitals and university departments, which were responsible for in-patient treatment. Altogether they had around 12,000 beds, this means 16 beds per 10,000 population. Thirty years later, the situation has fundamentally changed. The system has mutated into a multifaceted picture with more than 40 smaller psychiatric in- and day-patient services funded by social security, and numerous community based residential, day structure, ambulatory and other services funded mainly by the social service system. Psychiatric beds could be reduced to below 5,000, corresponding to roughly 6 beds per 10,000 population.

The number of social security reimbursed psychiatrists working in solo practices is still rather low, but a large variety of new state certified professions, such as psychiatric nurses, clinical psychologists and psychotherapists has been created.

Mental health problems constitute a major burden on individual sufferers, their families and friends, and on society as a whole. The prevalence of anxiety and depressive symptoms in the Austrian population demonstrates this, as there is one in six persons suffering from such symptoms over a four week period and it is alarming that psychiatric disorders are the second most important cause among all diseases for disability pensions.

The major goal in our Health Policy is the support and enforcement of Health Promotion and Health Prevention. Therefore we are also working on a "Mental Health Centre of Excellence", together with the author of the report, Professor Heinz Katschnig, M.D., which will be the most important step after having analysed the situation now. Useful cooperation with other structures of our Health Care system and effective strategies of our "Centre of Excellence" should enable us to reduce the suffering of the patient, the stigmatisation as well as the incidence and prevalence of mental disorders. Mental and physical health must be given equal importance, this as one commitment to "Stop exclusion - Dare to Care".

Maria Rauch-Kallat
Federal Minister for Health and Women
Mental Health in Austria

There is no health without mental health!

"Mental Health" does not only describe mental disorders, but also prevention and therapy. This term is a central element of Health and has to become one in Health Care as well.

Today mental disorders represent a global burden, as it is shown by the disease "depression", which is rated as number 4 within the most common diseases now and will become number 2 within the next 20 years.

In 2001, when WHO announced the "World Health Day on Mental Health", we presented the first Austrian Mental Health Report. It shows all available data on the structure of the care for patients with mental disorders.

Together with the analysis, which will be presented in the second Austrian Mental Health Report, we will have a close and complete study of the psychiatric and psychosocial care for people with mental disabilities and disorders in Austria. This report will be a basic element for all further developments in the field of prevention, diagnosis and therapy.

I want to thank the authors of both Austrian Mental Health Reports, my colleague Heinz Katschnig and his co-workers, for this brief summary as well as for their ambitious contributions and for their engagement against stigmatisation of people with mental disorders.

This engagement, which enables us more and more to understand the expectations and needs of patients and their families, has to be increased. Also patient initiatives and other innovative projects with and for patients have to be supported.

"Mental Health" is a challenge for a Health Care System - nation wide, as well as internationally. We have to face it without exclusion.

Professor Reinhart Waneck, M.D.
Secretary of State for Health
INTRODUCTION AND OVERVIEW

The mental health statistics presented and discussed here in English are selected from the Austrian Mental Health Reports published in 2001 and 2003, which are only available in German. These statistics pinpoint certain areas for which data were available and which constitute a challenge for health policy. It was not intended to draw a comprehensive picture in this short brochure. For complete information on "Public Health in Austria" a separate publication is available in English from broschuerenservice@bmgf.gv.at.

Austria is a rather small country, with 8 million inhabitants and large rural and mountainous areas. It is a federal country with health and social service provision being the responsibility of its nine provincial governments. These means that data on health and mental health services - with the exception of hospitals due to the nationwide DRG-System - are not available for the country as a whole, but only on the provincial level. Also, such data are usually not collected in a uniform way. For these reasons the mental health statistics contained in this brochure represent a compromise between the desirable and the available and do not draw a representative picture of the situation as far as mental health and mental health care in Austria is concerned. Large sectors, such as the use of out-patient services, the so-called complementary facilities (e.g. residential, day structure), and the advocacy and self-help movements are either underrepresented or not represented at all, because no or only insufficient nation-wide data are available.

Extramural services are mainly provided by several thousand doctors in solo practices (general practitioners and specialists). Extramural mental health services - other than psychiatrists in solo practices - are publicly funded but available only from a large variety of private and charitable providers. 99% of the population are covered by obligatory health insurance, which gives virtually free access to medical help with a small amount of financial participation.

The statistics selected here illustrate challenges for mental health policies. Examples are: The need for early recognition of mental disorders in general practice and anti-stigma activities in order to make access to psychiatric help more acceptable (A1); attention to the problem of mental health and the workplace (A2); suicide prevention (A3), and the ever increasing burden of dementia which shall soon overtax care facilities (A4). Furthermore: The coordination between private psychiatrists in solo practices and publicly funded community psychiatric services (B1, B4), the issue of adequate reimbursement for psychotherapy (B2, D4) and redefining the role of psychiatric beds vis-a-vis other types of care, especially also under the aspect of the fragmentation of financing of services, which has to be overcome by the introduction of global budgets (B3, B4, C1-C4). In view of the rising numbers of compulsorily detained psychiatric patients, the compulsory detention act has to be re-evaluated (C5). Also the rising numbers of mentally ill offenders in institutions should be a cause for concern of politicians (C5). Medication issues create a number of challenges (D1-D4): The rising numbers of prescriptions, and above all the rising costs of these prescriptions, constantly create new isolated debates, which usually do not consider the whole system of mental health care, for which costs of medication are only a fragment of the total costs. Better medications might prevent relap-
INTRODUCTION AND OVERVIEW

se and hospital admissions; but, because of the fragmentation of the financing system, there is no way to monitor this.

It is noteworthy that all nine provincial governments have produced reform plans for mental health care over the last few years and that their philosophy is the same, namely a change from the traditional hospital based and centralised to a decentralised and diversified community oriented mental health care system. The latter development of a diversification of services in the community poses a new challenge to mental health informatics. It is certainly necessary that data collection and informatics in the health field are much more coordinated and integrated in the future, both on a country and on an international level, in order to render health care planning more rational and to better inform those allocating the ever scarcer resources. In the meantime the collection and publication of the available data, as in this brochure and the Austrian Mental Health Reports, can be regarded as a useful compromise on the way towards this aim.

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A Mental health indicators

What has been impressively documented recently by the World Health Organization in its "World Health Report" is also true for Austria: Mental health problems constitute a major burden on individual sufferers, their families and friends, and on society as a whole. Large international surveys have shown life time prevalence rates for mental disorders of 40 and more percent, with affective and anxiety disorders as the most frequent diagnoses. In the "Global Burden of Disease" report depression was the leading cause for disease related disabilities (somatic as well as psychiatric disorders) in the age group 15-44 in industrialized countries.

In this section estimates of the prevalence of anxiety and depressive symptoms in the Austrian population are presented - they are as high as one in six persons suffering from such symptoms over a four week period (A1).

It is also alarming that psychiatric disorders are the second most important cause (among all diseases) for disability pensions and that their numbers have been dramatically increasing since the mid-eighties; in a similar development the numbers of sickness leave days have been constantly on the rise during the nineties (A2).

Austria has always belonged to the group of high suicide rate countries, with well over 20 per 100,000 of the population (and a peak value of 28.3 in 1986). It came as a surprise that, for the first time in history, suicide rates fell below 20 per 100,000 in 1997 and have remained below that mark until today (A3). It is remarkable that this decline coincides with the expansion of community psychiatric services (B4), the enactment of a psychotherapy act (B2), improvements in the recognition of depression and the increase in prescriptions of antidepressants (D2), especially by general practitioners (D3). However, whether these or other factors are responsible for the reduction of suicide rates, cannot be decided post hoc.

Finally, the by now well known fact of a demographically driven dramatic increase in the prevalence of dementia over the next 50 years is related here to the also demographically determined decline of the work force. While in 1951 for each person suffering from dementia 120 persons were in the work force, this number will decrease in the year 2050 to below 17.
In a representative survey of the non-institutionalized Austrian population (N = 1,408) the "General Health Questionnaire" (GHQ-12) was used to estimate the prevalence of anxiety and depressive symptoms during the four week period before the survey. Using a cutoff of 2/3, a prevalence rate of 17.5% for women and 15.1% for men was found. The rates were declining with age, in men more so than in women. There was a non-significant trend for unemployed persons to have higher rates. Married persons had the lowest rates, never married and divorced persons the highest. The results are comparable to those of surveys using the same questionnaire in other countries.

Using more stringent diagnostic criteria, the US National Comorbidity Survey (NCS) found a one year prevalence rate of 17.2% for anxiety, 11.3% for affective (mainly depressive) and 11.3% for substance use disorders, with a high comorbidity between these diagnostic groups, yielding a one year prevalence rate for any disorder of 29.5%. With 0.5% schizophrenia was much less prevalent. The "Global Burden of Disease" report showed that in the economically active segment of the population (15-44 years) of industrialized countries depression, schizophrenia, bipolar and obsessive compulsive disorders are among the ten leading diseases (somatic as well as psychiatric) as far as disabilities in daily life are concerned (with depression being number 1). Furthermore, it has been repeatedly shown (also in an Austrian study) that persons who are hospitalized for a somatic disease, stay longer in hospital, if they also suffer from a psychiatric condition, than those who don’t, which is an economically extremely relevant finding.

Anxiety and depressive disorders are under-recognized and under-treated, although powerful pharmacological and psychotherapeutic treatments are available today. It follows that better training of non-psychiatric physicians, especially of general practitioners, in order to enable them to recognize these disorders at an early stage, is necessary. Anti-stigma activities, which should lead to better acceptance of psychiatric diagnoses and of people suffering from these conditions, should also help in this respect. Activities in both areas are under way in Austria.

Anxiety and depression
Anxiety and depressive symptoms in a representative sample of the Austrian population (aged 15+; N = 1,408)
The number of so called disability pensions, i.e. premature retirements due to work incapacity, was 24,836 in 1999. Psychiatric disorders were the second largest cause for disability pensions (18.9%) after musculoskeletal diseases (39.5%)⁶. Such premature retirement because of psychiatric disorders is much more prevalent in the younger age groups - in those aged less than 40 between 40% and 50% of all disability pensions are granted because of mental disorders. If the development of new disability pensions is regarded from 1985 to 1999, it is evident that psychiatric disorders are the only cause for disability pensions with a clear increase, with a factor of 2.5 times over the fifteen year period, while most other causes show a decline, corresponding to the absolute decline of all granted disability pensions from 28,346 in 1985 to 24,836 in 1999. The granting of disability pensions is a complex phenomenon and cannot be regarded as a direct prove for the increase of mental disorders. It is also possible that mental disorders are more readily appreciated as causes for granting a disability pension, both by sufferers, their family members and the authorities. In any case, the increase of the economic burden on society through mental disorders is evident.

In 1999 all together 14,431 sickness leave days were registered per 1,000 employees in Austria, which corresponds to a slight decrease since 1990 (14,431)⁷. Psychiatric disorders are not among the main causes. However, if the development since 1990 is regarded, sickness leave days because of psychiatric disorders are on the increase, while they are rather on the decrease for most other causes (except for pulmonary diseases). Again, sickness leave is a complex phenomenon, an cannot be taken as a one to one prove for the increase of mental disorders.
New disability pensions 1999  
(N=24,836)

Changes in the frequencies of new disability pensions 1985-1999  
(1985=100%)

Sickness leave days per 1,000 employees 1999  
(N=14,431)

Changes in sickness leave days 1990-1999 (1990 = 100%)
Traditionally Austria belonged to the high suicide rate countries. Long term time series show rather high suicide rates between the first and the second world war and rates above 20/100.000 for the first 25 years after the second world war. In the 1970ies these rates started to rise and reached a value of just under 30/100.000 in 1986.

Over the last fifteen years suicide rates have steadily decreased and are constantly below 20/100.000 since 1997. Female rates have dropped more than male rates. It is difficult to interpret these changes, but it is noticeable that over the same period community psychiatric services expanded (B4), a clinical psychology and psychotherapy law was enacted in 1990 (B2) and the prescription of antidepressants increased while those of tranquilizers decreased (D2), especially by general practitioners (D3).

As in most countries suicide rates are very different for men and women and for different age-groups. In Austria the female suicide rate is less than half as big as the male rate and rates increase with age. Men above the age of 85 years have a suicide rate of 120/100.000, the female rate in these age-group is around 33/100.000. As far as marital status is concerned in both men and women the suicide rates are lowest in the married and highest in the divorced, which is especially true for men (120/100.000). Also the rate of never married (above the age of 20) is clearly higher than the rate of the married. The most frequent suicide method used by men is hanging (50%), followed by shooting (20%) and self-poisoning (10%). Also in women hanging is the most frequent method used (40%), followed by self-poisoning (25%) and jumping (14%).

A national suicide prevention program has been developed and is awaiting implementation. A specific suicide prevention project, carried out since many years in Vienna, is based on an agreement with the press not to report about suicides in the subway, which has led to a reduction of suicides by this method.
Suicide rates per 100.000 population 1913-2002, no data are available for 1940-1945
The actual political discussions in industrialized countries on how to finance the system of pensions in the coming decades, with the ever growing numbers of old people and decreasing numbers of young people, has a specific aspect in terms of how to finance health care for an increasingly aging and therefore increasingly sicker population. As far as mental disorders are concerned it is not only organic brain disorders, but also affective and anxiety disorders, which are prevalent in old age. However, since organic brain disorders are specifically related to old age, they warrant specific attention.

In a model calculation based on international prevalence data and the expected demographic changes, it was calculated for Austria that 35,500 persons suffered from dementia in 1951 and that this figure had increased to 90,500 in 2000 and will rise to 233,800 in 2050, mainly because of the well known change in the age pyramid. Because the prevalence of dementia increases drastically beyond the age of 80, the total prevalence rate in those aged 60 and above will also increase (from 3.28 to 8.28%). Since the working population will decline from 2000 to 2050, the number of persons working per one person suffering from dementia will decrease dramatically. It was 120 in 1951, 56 in 2000 and will be below 17 in 2050. When the actual number of dementia cases in 1951 is set 100% it will rise to 658% in 2050. For the working population the same calculation shows a slight increase until 2000 (118.8) and a decrease until 2050 (91.6). If the ratio of dementia cases per 100 of the working population is set 100% for 1951, it will increase to over 700% in 2050.

These calculations show the dramatic increase of the burden of dementia on Austrian society over the next 50 years. It is to be feared that there might simply not be enough persons - family members or professionals - who care for demented persons. Furthermore the financial burden will be enormous. Austria has a nursing care scheme, which provides "nursing benefits" to persons in need of nursing care in seven grades according to the degree of disability. The affected person can buy nursing care with these benefits. By the end of 2002, altogether 257,013 persons received nursing benefits (slightly more than 3% of the total population) and the costs were around 1.3 million Euro. The increasing burden of dementia will press hard upon this nursing care scheme.
The development of the prevalence of dementia and its relationship to the working population 1951-2050

<table>
<thead>
<tr>
<th>Year</th>
<th>Work Force</th>
<th>Prevalence of dementia</th>
<th>Rate: cases of dementia per 100 work force</th>
<th>Number of working persons per one person suffering from dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>4,262,800</td>
<td>35,500</td>
<td>0,83%</td>
<td>119,9</td>
</tr>
<tr>
<td>2000</td>
<td>5,064,900</td>
<td>90,500</td>
<td>1,79%</td>
<td>56,0</td>
</tr>
<tr>
<td>2050</td>
<td>3,905,600</td>
<td>233,800</td>
<td>5,99%</td>
<td>16,7</td>
</tr>
</tbody>
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![Graph showing the development of the prevalence of dementia and its relationship to the working population from 1951 to 2050.](image-url)
References for part A: Mental Health Indicators in the General Population

2 Katschnig H, Etzersdorfer E, Muzik M: Final report to the "Austrian Science Fund" on the project "Attitudes of the Austrian population towards psychiatry and psychiatric patients". Vienna 1993
6 Wörister K: Chamber of Labour, Vienna 2000
7 Wörister K: Chamber of Labour, Vienna 2000
B Mental health professionals and mental health services

Until the early 1970ies a two tier system of psychiatric care existed in Austria: On the one hand ten large mental hospitals (plus three small university departments) were responsible for in-patient treatment. Altogether they had around 12,000 beds (i.e. 16 beds per 10,000 population; six of the ten hospitals had more than 1,000 beds and three more than 1,500 beds. A survey in 1974 showed that 85% of patients suffered from either schizophrenia (40%), mental retardation (25%) or dementia (20%), nearly 60% had been in hospital for more than two years and more than 90% were compulsorily detained. On the other hand, a few dozens of "neuro-psychiatrists" in solo practices treated both neurological and psychiatric out-patients. Because of the large geographical distances there was virtually no communication between these two systems.

Thirty years later, the situation has fundamentally changed. As far as services are concerned the two tier system has mutated into a multifaceted picture with more than 40 smaller psychiatric in- and day-patient services funded by a variety of sources (among others health insurance), and numerous community based residential, day structure, ambulatory and other services funded mainly by the social service system (B4). Psychiatric beds are now down to below 5,000, which is equivalent to roughly 6 beds per 10,000 population (B3). In addition, neuropsychiatry has been recently divided into two separate medical specialties, neurology on the one hand, and psychiatry on the other (B1). The number of social security reimbursed psychiatrists working in solo practices is still rather low.

In addition to psychiatrists, a large variety of new state certified professions, such as clinical psychologists and psychotherapists, have been created, who cooperate with psychiatrists within institutions, but partly compete with them in the ambulatory field (B2).

The main challenge today is how to cope with the fragmentation of financing of these services, which makes transitions between in-, day- and out-patient, as well as between medical and social services difficult. In addition, the federal structure of the country has led to uneven developments, with some provinces being more advanced and others more behind in the reform processes. The federal structure has also prevented the establishment of common definitions of services and of quality assurance criteria outside hospitals.
Until very recently - and in contrast to most other countries - "neuropsychiatry" was a single medical specialty in Austria. In 1975 a half-hearted separation took place: formally one could be either a "psychiatrist and neurologist" or a "neurologist and psychiatrist", corresponding to a larger proportion of training time devoted to one of the two disciplines. De facto both types of specialists could still practice both neurology and psychiatry - which was and still is relevant for rural areas. Only those who have started their training in psychiatry or neurology since 1994 are now becoming "pure" psychiatrists or "pure" neurologists.

The numbers of "neurologists" and "psychiatrists" have been steadily increasing over the last 30 years, psychiatrists more so than neurologists. 893 certified psychiatrists were registered by the end of 2002 which corresponds to roughly one psychiatrist per 9,000 inhabitants. As far as ambulatory care is concerned, in 2002 two thirds of these worked in private practice, but only 98 had a contract with health insurance (i.e. they were accessible at virtually no costs). The latter figure corresponds to only one psychiatrist per 81,000 inhabitants or to 0.12 psychiatrists per 10,000 population. It will be necessary to redefine the role of these rather few solo practice psychiatrists in relation to the tax funded public out-patient services (B4).

The postgraduate training of psychiatrists comprises four years of psychiatry, one year of neurology and one year of internal medicine. Practical training is basically restricted to hospital settings, which constitutes a major problem in view of the development of psychiatric services away from the mental hospital and back into the community. Since 2002 an examination has to be taken at the end of the training.
Number of registered psychiatrists and neurologists\(^x\) 1972-2002

\(^x\) Until 1974 “neuropsychiatrists”, 1975-1994 “neurologists and psychiatrists” or “psychiatrists and neurologists”, since 1994 “psychiatrists” and “neurologists” as separate professions. In 2002 most are still “mixed”.

Number of psychiatrists in solo practices with and without social security contract

![Diagram showing the number of psychiatrists in solo practices with and without social security contract from 1972 to 2002.](image-url)
B2 Psychologists, psychotherapists, psychiatric nurses and other professionals

In 1991 the "Psychology Act" (Psychologengesetz) established the state certified professions of "clinical psychologist" and "health psychologist". Both have to follow a predefined postgraduate curriculum. Health and clinical psychologists may work in institutions or in private practices, where they are partly reimbursed by social security. Four in six of them are also certified "psychotherapists". In July 2003 they numbered 3,902, corresponding to 4,9 per 10,000 population, with more than 90% being qualified for both health and clinical psychology.²

Also in 1991 the "Psychotherapy Act" (Psychotherapiegesetz) established a specific curriculum for psychotherapists (who do not necessarily have to be university graduates). Training is delegated to 19 psychotherapy associations, representing different "schools" (such as psychoanalysis, behaviour therapy, family therapy, hypnosis, etc.). Psychotherapists in private practice are partly reimbursed by health insurance in a complex procedure. The number of psychotherapists was 5,632 by the end of 2002 (= 7 per 10,000 population).³ Since there is a large overlap between all professions discussed so far, their numbers cannot be simply added.

Psychiatric nursing is a special type of the nursing profession. The "Health Care and Nursing Act", which came into force in 1997, redefined the nursing professions and especially psychiatric nursing, including aspects of community psychiatric nursing. Training takes place at specialist psychiatric nursing schools and lasts three years. By the end of 2001 there were around 3,8 psychiatric nurses per 10,000 population.⁴ The majority of them work in psychiatric hospitals or psychiatric departments of general hospitals.

Social workers, physiotherapists, occupational therapists, art and music therapists are other typical professions working in the field of psychiatry in Austria.
Psychologists with a postgraduate degree in "Clinical Psychology" and/or "Health Psychology" (July 2003)

<table>
<thead>
<tr>
<th>Postgraduate training in</th>
<th>Numbers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical and Health Psychology</td>
<td>3.556</td>
<td>91.1%</td>
</tr>
<tr>
<td>Health Psychology only</td>
<td>158</td>
<td>4.1%</td>
</tr>
<tr>
<td>Clinical Psychology only</td>
<td>188</td>
<td>4.8%</td>
</tr>
<tr>
<td>Clinical- and/or Health Psychology</td>
<td>3.902</td>
<td>100.0%</td>
</tr>
<tr>
<td>thereof with additional training in psychotherapy</td>
<td>1.638</td>
<td>42.0%</td>
</tr>
</tbody>
</table>

**Psychotherapists 1991-2002**
B3 Psychiatric hospital beds

In most industrialized countries the past decades have seen a decrease in psychiatric beds and an increase in community psychiatric facilities.

Long-term series of statistics of psychiatric beds are not very accurate, because the definitions of what constitutes a "psychiatric bed", are not consistent over time and across countries. In Austria, for instance, there are still “mixed” neuropsychiatric wards and their beds may or may not be counted as “psychiatric” beds. Also, there is a difference between “theoretically” available (“systematized”) and actually usable beds. It is therefore not uncommon, that - if different sources are regarded - figures for psychiatric beds for one and the same country differ (which is the case for the figures reported here from the WHO database).

With these caveats in mind and allowing for some inconsistencies, one can note that over the last 30 years the number of psychiatric hospital beds has dramatically decreased in Austria. In a psychiatric hospital bed census 1974 altogether nearly 12,000 beds in ten large psychiatric hospitals (plus three university departments) were counted. Six of the ten hospitals had more than 1,000 beds, and three more than 1,500. The number of psychiatric beds has fallen to 4,696 in 2001 (beds actually in use), which corresponds to a decrease in the rate per 10,000 population from roughly 16 to 5,9, i.e. a reduction to nearly one third of the original value. With this rate Austria is at the lower end of a list of European countries. Also, in 2001 the 4,696 beds were distributed over 29 psychiatric hospitals and departments in general hospitals, which are now much smaller than thirty years ago. Today only two psychiatric hospitals have more than 500 beds.

The most recent figures represent the net effect of a reduction of beds in the traditional large psychiatric hospitals and the creation of psychiatric beds in general hospitals, together with a diversification according to upcoming sub-specialties (such as child and adolescent psychiatry, geriatric psychiatry, substance abuse, psychotherapy and others). This development is not evenly distributed over the whole country, with some provinces being more advanced than others. In the province of Lower Austria, for instance, a traditional mental hospital will be closed by 2007 and replaced by four psychiatric departments in general hospitals.

The Austrian Hospital and Major Equipment Plan (Österreichischer Krankenanstalten- und Großgeräteplan, ÖKAP/GGP) limits the rate of psychiatric beds (including day hospital places, but excluding child and adolescent psychiatry) with 3 to 5 per 10,000 population. The financing arrangements are such that it is more attractive to have day hospital places than beds. In 1999 16 day hospitals existed in Austria and their numbers have increased since then.
Beds in psychiatric hospitals and in psychiatric departments of general hospitals 1997-2001

Psychiatric beds per 10,000 population in WHO-EURO Countries
Public community psychiatric services are the responsibility of the federal provinces and nearly all provinces are by now financing such services.

All nine Austrian provinces have developed plans for the reform of psychiatric care, some as guidelines only, some with provincial government backing. Also for community psychiatric services there are large regional differences. For instance, some provinces follow the principle of sectorization, others don’t.

The number of community psychiatric services has been steadily increasing over the last fifteen years. It has been suggested that the reduction of suicide rates (A3) might be related to this increase of community psychiatric services.

These services are not well systematized and can not be easily compared with each other. Some are firmly established, others have the character of time limited projects. Nearly all are multiprofessionally staffed (B2) and often non-psychiatric professionals dominate.

Comprehensive data are difficult to obtain - in the table only minimum estimates of such tax funded community services are provided. They include "out-patient counseling services", "vocational rehabilitation services and projects", "day structure services" (without day hospitals) and "residential facilities and projects". In a recent survey 1,014 services/projects were counted for the whole country.8

The number of providers (usually charitable and private organizations) is very large. For roughly 1,000 services/projects there are 250 providers.
## Community psychiatric services and providers 2003

<table>
<thead>
<tr>
<th>Type of service</th>
<th>Number of services/projects</th>
<th>Number of providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient counseling services</td>
<td>325</td>
<td>73</td>
</tr>
<tr>
<td>Residential facilities and projects</td>
<td>350</td>
<td>92</td>
</tr>
<tr>
<td>Day structure services (without day hospitals)</td>
<td>167</td>
<td>40</td>
</tr>
<tr>
<td>Vocational rehabilitation services and projects</td>
<td>172</td>
<td>48</td>
</tr>
</tbody>
</table>
| **Total**                                            | **1014**                   | **253 x)**          

*) total number of providers is smaller than the sum, since some providers offer several types of services.
References for part B: Mental Health Professionals and Mental Health Services

1 Austrian Chamber of Doctors, Statistical Department, Vienna 2003
2 Federal Ministry of Health and Women, 2003
4 Statistic Austria, 2003
5 WHO "Health For All" - database
The only service use data routinely available on a countrywide basis are data about hospitalization, originating in the "performance related hospital financing system" based on "Diagnosis Related Groups (DRG)". This system was introduced in Austria in 1997 and has become quite reliable in the year 2001 for which data are analyzed here. The DRG-data are reported whenever a patient is discharged from hospital, i.e. whenever a hospital episode ends and a diagnosis is provided. When analyzing these data it has to be kept in mind that the purpose of the system is to get financial reimbursement and not collect service use data per se. Some variables, which are important for psychiatry, such as "compulsory detention" are not contained in this system.

If all discharges from all types of the 310 hospitals in Austria are regarded, the astonishing fact becomes apparent that year by year far more than 2 million in-patient episodes are counted - with a total population of 8 million this amounts to over 25% of the population. For roughly 5%, i.e. one in twenty, of these in-patient episodes a psychiatric diagnosis was reported as the main diagnosis (C1). It was another surprise that 45% of these psychiatric episodes occur in non-psychiatric hospitals and departments. Whether this is due to fear of stigma of being admitted to a psychiatric unit, due to the sometimes large distances to psychiatric units or due to other reason, is unclear and needs further analysis.

As one contribution towards understanding this phenomenon, the graphs contained in this section show the distribution of the main diagnostic groups, also broken down by gender, in all psychiatric in-patient units (C2), in different types of hospital settings, the traditional centralized vs. the new decentralized psychiatric settings (C3), and, finally, the non-psychiatric hospital settings (C4). It becomes apparent that the diagnostic spectrum is quite different in these different settings.

Finally, using results from two specific research projects, data about compulsory admissions to psychiatric in-patient units and about detained mentally ill criminal offenders are presented - in both groups the numbers have increased over the last decade (C5).

If not stated otherwise, all analyses in this sections were carried out by the authors of the "Austrian Mental Health Reports 2001 and 2003" with data files provided by the Ministry of Health and Women.

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\* Until 2000 ICD-9 diagnoses were in use in Austria; in 2001 ICD-10 was introduced and diagnoses were converted back to ICD-9 by a computer program in order to assure comparability over time.
C1 In-patient episodes without and with a psychiatric diagnosis as main diagnosis in all hospitals

The 2,281,210 hospital in-patient episodes recorded for the year 2001 (all ICD diagnoses) amount to nearly 27% of the figure of the total population (8,032,926). Since no record linkage is possible, it cannot be determined how many episodes were single or repeated ones, in other words, how large the population of "heavy users" was. Anyhow, with these figures, Austria is among the top countries in Europe, as far as use of hospital beds is concerned.

For nearly 5%, or one in twenty of these in-patient episodes (109,043 in 2001 = 4.78% of all in-patient episodes and 1.4% of the total population) a psychiatric diagnosis was reported as the main diagnosis.

Somewhat surprising is the fact that only 55% of all in-patient episodes with a psychiatric diagnosis were reported from psychiatric hospitals or psychiatric departments (including "mixed" neuropsychiatric departments) of general hospitals, and that 45% were reported from non-psychiatric hospitals and departments. In 1997, the year of the introduction of the DRG system, the latter percentage had temporarily risen to nearly 50%. It is not easy to explain this phenomenon, but some hypotheses are discussed in section C4, where the diagnostic spectrum of psychiatric episodes in non-psychiatric hospitals and departments is analyzed.

A more general observation is that the number of all hospital episodes has continuously increased over the years (+13.8% from 1996 to 2001), but that hospital episodes with a psychiatric diagnosis rose twice as much over the same period (+27.4%), even more so in non-psychiatric departments (+30.6%) and somewhat less in psychiatric hospitals and departments (+24.9%). Since record linkage is not possible, there is no way to say whether these increases are more due to the increase of re-admissions or the increase of first admissions.
In-patient episodes in all hospitals:  
Non-psychiatric vs. psychiatric diagnoses 1996-2001

In-patient episodes with a psychiatric diagnosis:  
Non-psychiatric vs. psychiatric hospitals/departments  
(including neuropsychiatric departments) 1996-2001
57,905 in-patient episodes with a psychiatric diagnosis were counted in 2001 in psychiatric hospitals and psychiatric departments of general hospitals (including specialized departments for substance abuse, geriatric psychiatry and child/adolescent psychiatry, but excluding mixed neuropsychiatric departments). For the sake of simplicity the ICD diagnoses were condensed into six diagnostic groups, with neurotic and personality disorders lumped together because of the small numbers of personality disorder diagnoses.

The leading diagnostic group, with just over one quarter of all episodes, is neurotic/personality disorders, followed by three diagnostic groups with nearly equal percentages (of about 20%): alcohol disorders, affective disorders\(^1\) and schizophrenia. Psycho-organic disorders (mainly dementia) and drug abuse disorders (other than alcohol) are less frequent.

While men and women have nearly equal numbers of episodes, there is a clear gender difference as far as diagnosis is concerned. Affective disorders and the mixed category neurotic/personality disorders are much more frequent in women. In contrast, substance (especially alcohol) abuse disorders are considerably more frequent in men than in women, with alcohol abuse disorders constituting by far the largest diagnostic group in men.

\(^1\) As has been noted above that ICD-10 was introduced in Austria in 2001, and a program was used here to retranslate ICD-10 into ICD-9 diagnoses. This program translates F3 ("affective disorders" in ICD-10) into 296 (affective psychosis in ICD-9). Previous years show much smaller percentages for this category, since it included only "affective psychosis" (while neurotic depression belonged to the category of neurosis). Due to the back-translation procedure here all affective disorders of ICD-10 are included in the previous "affective psychosis" category, which gives a slightly distorted picture.
In-patient episodes in psychiatric hospitals and psychiatric departments in general hospitals by main diagnostic group 2001, N = 57,905

Same as above by gender; men: N = 29,552, women: N = 28,353
In this section the diagnostic spectrum of the ten traditional mental hospitals which existed already in 1974 (1974: 11.763 beds; 2001: 3.435 beds) is contrasted with the diagnostic spectrum of the 19 new psychiatric in-patient units (including specialized substance abuse, geriatric psychiatric and child/adolescent psychiatry units) with altogether 1.261 beds in use in 2001 (see B3).

In the ten traditional hospitals, which still have the highest case load (41.263 in-patient episodes in 2001), neurotic/personality disorders (24,1%) and schizophrenia (20,3%) are the leading diagnostic groups. They are closely followed by alcohol abuse and affective disorders. All other groups are less frequent. In the 19 new psychiatric in-patient facilities (16.642 in-patient episodes in 2001) schizophrenia (13,9%) is only at the fourth place. With over 30% the neurotic/personality disorders category is by far the most frequent diagnostic group and has a higher percentage than in the traditional hospitals. Alcohol abuse and affective disorders follow with both over 20%. All other diagnostic groups are less frequent, especially the psychoorganic group, with a much smaller proportion (6,1%) than that in the ten traditional psychiatric hospitals (11,9%).
Traditional psychiatric hospitals \( (N = 41.263) \)

- Psychoorganic: 11.9\% \( (N=4,909) \)
- Schizophrenia: 20.3\% \( (N=8,336) \)
- Affective disorders: 18.0\% \( (N=7,407) \)
- Neurotic and personality disorders: 24.1\% \( (N=9,954) \)
- Alcohol abuse disorders: 19.9\% \( (N=7,787) \)
- Other substance abuse disorders: 5.9\% \( (N=2,451) \)
- Mental retardation: 1.0\% \( (N=4,79) \)

New psychiatric in-patient facilities \( (N = 16.642) \)

- Psychoorganic: 6.1\% \( (N=1,007) \)
- Schizophrenia: 13.9\% \( (N=2,313) \)
- Affective disorders: 20.3\% \( (N=3,382) \)
- Neurotic and personality disorders: 30.1\% \( (N=5,009) \)
- Alcohol abuse disorders: 22.8\% \( (N=3,798) \)
- Other substance abuse disorders: 6.4\% \( (N=1,057) \)
- Mental retardation: 0.5\% \( (N=76) \)
As has been pointed out above, 45% of all hospital episodes with a psychiatric diagnosis are reported from non-psychiatric departments of general hospitals. Two thirds of these episodes are reported from internal medicine departments. With 48,710 episodes in 2001 this amounts to more than 2% of all in-patient episodes in non-psychiatric hospitals. One can only speculate, why this figure is so high. Possible explanations are the fear of stigma of being admitted to a psychiatric hospital, large geographical distances, and somatic comorbidity..

The diagnostic spectrum in these non-psychiatric departments is clearly different from the psychiatric ones. While neurotic/personality disorders dominate again (with well over one third of all episodes), psychoorganic disorders constitute the second largest group with one quarter of all episodes. Alcohol abuse and affective disorders hold an intermediate position, with 17.1% each. Schizophrenia (2.7%) and non-alcoholic substance abuse disorders (2.7%) are relatively unimportant.

In view of the enormous numbers of episodes (48,710 in 2001) it comes as no surprise that more in-patient episodes with neurotic/personality disorders are treated in non-psychiatric departments of general hospitals (17,142) than in psychiatric in-patient facilities (14,963). The same is true for dementia: In fact, two thirds (12,052) of all in-patient episodes with dementia (17,986) are treated in non-psychiatric departments of general hospitals.

There is a clear gender difference. First of all - and in contrast to the finding in psychiatric in-patient facilities - the numbers of in-patient episodes in non-psychiatric departments of general hospitals is much larger for women (28,237) than for men (20,473). Secondly, the diagnostic spectrum is again different, with women dominating in neurosis/personality, affective and psychoorganic disorders, and men overwhelmingly dominating in alcohol abuse disorders.
In-patient episodes with a psychiatric diagnosis in non-psychiatric departments of general hospitals by main diagnostic groups 2001, N = 48,710

Same as above by gender; men: N = 20,473, women: N = 28,237
C5 Compulsory admissions and detained mentally ill offenders

The compulsory admission act ("Unterbringungsgesetz") of 1991 regulates the compulsory admission and detention (in psychiatric hospitals and departments) of persons who suffer from a mental illness and pose a threat for their own or other people's health or life. The emphasis is on the safeguarding of personal liberty. So-called patient's lawyers were established, who are based in psychiatric hospitals and departments and represent the patient's rights vis a vis the hospital. Also the courts are intensively involved in the detention procedure.

A recent study has shown that the number of compulsorily detained psychiatric patients has continuously increased since the new act became effective, while the numbers of involuntary detentions in psychiatric hospitals had constantly fallen during the decades before. However, if related to the increase in psychiatric in-patient episodes, the proportion of involuntary admissions/detentions has remained constant, at the rather high level of 17%, over the decade from 1991 to 2000.

Why the intention of the compulsory admission act to reduce involuntary hospitalizations has failed, remains unclear, and different explanations are brought forward by different quarters. Psychiatrists tend to assume that patients are prematurely discharged and have to be readmitted compulsorily. Another possible explanation is that, with the closer scrutiny by the courts, "gray" situations, which may not have been brought to external attention formerly, now result in formal detention. Basically the finding remains unexplained.

Mentally ill persons who have committed an offense against the penal law fall under two main categories, those who are regarded as fit to stand trial (mostly personality disordered sex offenders) and those who are not (mostly psychotic patients). Both groups are detained in special institutions in the prison system; those who are not regarded as fit to stand trial may also be detained in psychiatric hospitals (in fact more than half of them are). In the graph the numbers of persons detained because of these two conditions is shown (in addition to the numbers of offenders with a drug problem). As can be seen, the former two categories have been on the rise over the last decade - in fact the number of detained persons in these two categories has more than doubled since 1990. This increase does not necessarily reflect an increase in offenses - the reasons are most probably complex and include, among others, a possible change of court practices.
References for part C: Utilization of psychiatrix hospital beds


While details for specific in-patient treatments are not available on a country-wide basis (due to the lump-sum approach of the DRG system), data for pharmacological and psychotherapeutic treatments in out-patients are. Sources are the "Main Association of Austrian Social Insurance Institutions" (for medication paid for by health insurance) and the "Institute of Medical Statistics (IMS)", which carries out regular prescription surveys among doctors in private practice and in pharmacies.

For all types of medication 93.3 million prescriptions were paid for by health insurance in 2002, with total costs of 1.788 million Euro. Cheap medications are not included, since patients have to pay a prescription fee of 4.14 Euro and it might be cheaper for them to buy the medication themselves. 6.5 million prescriptions, i.e. 7% of all prescriptions, concerned psychotropic medication, with costs of 167.3 million Euro, or 9.4% of the costs for all drugs.

In 2000 health insurance paid 28.6 million Euro for psychotherapy. While this is less than 20% of the costs of pharmacotherapy during that year, it has to be acknowledged that the target populations for these two types of treatments only partly overlap and that a direct comparison between these two treatments is not meaningful. Also, it is proven for many psychiatric conditions that a combination of both treatments is superior to the single treatments.

The graphs on the following pages basically show that prescriptions and costs for antidepressants and antipsychotics are on the rise - also as far as costs are concerned - and that tranquilizers are on the decline.
D1 Number of prescriptions and costs of psychotropic medication in out-patient services by type of medication 2002

In 2002 all together 6,540,253 prescriptions for psychotropic medications were issued by doctors (general practitioners, psychiatrists and other specialists) who had contracts with health insurance. Over 50% of these prescriptions were for antidepressants, less than 25% for tranquilizers and 15% for antipsychotics.

The costs for these groups - in total 167,3 million Euro - are not proportional to the number of prescriptions. Antipsychotics are relatively expensive (accounting for one quarter of the total costs, but only for 15% of prescription). In contrast, tranquilizers, while accounting for more than every fifth prescription, create only 4% of the total costs. The costs for antidepressants are related to the percentage of their numbers of prescriptions.
Out-patient prescriptions of psychotropic medication 2002 by type of medication, 100% = 6,540.253 prescriptions

Costs of out-patient prescriptions of psychotropic medication 2002 by type of medication, 100% = 167,331.000 Euro
The total number of prescriptions of psychotropic medication rose from 4,77 million in 1995 to 6,54 million in 2002. The increase is not monotonous, since a leveling off can be observed since 2000 with only a small increase from 6,46 million to 6,54 millions (+1,2%), while in the years before increases were much higher. One possible explanation is that the prescription fee was increased substantially in 2002 and that since then more patients pay for their medication themselves.

As far as type of medication is concerned, antidepressant prescriptions have more than doubled between 1995 and 2002 (with yearly increases of between 2 and 3%). Some argue that the reduction of suicide rates (A3) might be related to the increased prescription of antidepressants, especially the new ones which are less toxic.

Antipsychotic prescriptions increased by a factor of 1.5. Tranquilizer prescriptions decreased, especially since 2000, which might be in connection with the above mentioned mechanism in relation to the increase of the prescription fee (since tranquilizers are usually cheap).
Prescriptions of psychotropic medication 1995-2002

Total

Antipsychotics

Antidepressants

Tranquilizers

Proportions of antipsychotics, antidepressant and tranquilizer prescriptions
It is somewhat surprising at first sight that general practitioners are the leading group among all physicians as far as the number of prescriptions of psychotropic medication is concerned. Of course, this is not really astonishing, since general practitioners are much more numerous than psychiatrists.

What is in fact astonishing is that general practitioners are the leading group for all three main types of psychotropic medication. It has been well known for some time that general practitioners have always tended to prescribe tranquilizers, but they do clearly less so in 2002 than they did a decade earlier. It seems that antidepressants, for which two million prescriptions were issued in 2002 by general practitioners, have taken over the role of tranquilizers. Their increase from 1991 to 2002 mirrors the decrease of tranquilizer prescription by general practitioners.

It is noteworthy that psychiatrists never prescribed much tranquilizers and remained stable in this respect over the period 1991-2002 on a low level. Psychiatrists also prescribed more antidepressants in 2002 than they did 1991, but the rise was by far not as pronounced as that in general practitioners.

As far as antipsychotic prescriptions are concerned the situation was rather stable until 2000, when the number of prescriptions started to rise, especially so prescriptions by general practitioners. All together, antipsychotics are the smallest sector in the field (which does not show in the graph, since the scale is different from that for antidepressants and tranquilizers).
The costs of prescribed psychotropic medication have more than doubled between 1995 and 2002. The rise is exclusively due to the prescription of antidepressants and antipsychotics, with the latter showing an especially drastic increase, which is out of proportion if compared with the increase of prescriptions. The reason is probably the increasing proportion of prescriptions of atypical antipsychotics.

It is noteworthy that in 1995 tranquilizers and antipsychotics had caused nearly identical costs and that in 2002 antipsychotic costs were 6 times as high as costs for tranquilizers.
Costs of prescriptions of psychotropic medication by type of medication
1995-2002
Psychotherapy is a state-certified profession with a standardized curriculum since 1991 (see B2). By the end of 2002 altogether 5632 psychotherapists were registered - a number seven times as large as that of psychiatrists.

Psychotherapists may practice psychotherapy either in institutions or in solo practices, where the costs are partly borne by health insurance in a complex manner - either by contract or by reimbursing the patient, who has to pay the psychotherapist directly. The latter mechanism also applies to patients of psychiatrists who have undergone a specific psychotherapeutic training.

The total costs of health insurance funded psychotherapy increased from 22.6 million Euro in 1997 to 28.6 million Euro in 2000, the year for which the latest figures are available. This is around 20% of the costs of psychotropic medication paid by health insurance. Some regard this as a small, others as a large amount; sometimes a polemic is carried out around these figures. It has to be clearly stated, however, that the target populations of these two types of treatments only partly overlap and that a combination may well be superior in some conditions than just applying one of the two treatments alone.
Costs of health insurance funded psychotherapy 1997-2000 (in million Euro)
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