

Analysis of mental health from open data databases

This article presents an overview of the issues related to mental health in Europe based on open data.

- Mental health refers to an individual's emotional, psychological, and social well-being, encompassing how they think, feel, and act. It also includes mental disorders such as depression, anxiety, and substance use issues, which have seen a marked increase across Europe in recent years.
- Understanding and addressing mental health challenges requires comprehensive and transparent data. Open data sources play a crucial role in this effort by providing valuable insights into trends, expenditures, and gaps in mental health care. They help policymakers, insurers, and healthcare providers develop informed strategies for prevention, early intervention, and treatment.
- This analysis draws on open data from various national and European health institutions, focussing on five countries: **Italy, Spain, France, Germany, and England**. By examining these cases, we aim to highlight common challenges and identify disparities.

Costs and prevalence of mental health diseases are rising across Europe

England	+39%	of people in contact with secondary mental health services between 2018-19 and 2023-24**
Spain	+29%	mental health prevalence between 2018 and 2023
	+23%	DDD** consumption of mental health drugs per inhabitants between 2018 and 2023
France	+19%	total cost of psychiatrist consultations between 2019 and 2023
	+13%	spending on drugs prescribed by psychiatrists between 2019 and 2023
Germany	+41%	DDD*** drugs prescribed by psychiatrists between 2018 and 2021
Italy	+9%	spending on psychiatric drugs dispensed through the conventional system between 2018 and 2022

- Across Europe, relevant key performance indicators (KPIs) show that there has been a significant **increase** in the **prevalence and costs** related to mental health disorders. This trend has intensified since the **COVID-19 pandemic**.
- In addition, the reliance on **psychotropic medications** has grown (except in England), which could emphasise an issue in **access to adequate mental health services**.
- Our analysis show that **depression** is often a major cause of the deterioration of mental health.

* Data source available by clicking the link

** this data follows an annual reporting period from April 1 (year N) to March 31 (year N+1)

*** defined daily doses : the assumed average maintenance dose per day for a drug used for its main indication in adults

Mental health disparities among demographic cohorts

Our analysis of available KPIs and data in each of the five countries shows common trends regarding the demographics:

- By **gender**: **Females** tend to have higher rates of consultations, higher drug consumption for mental health conditions and higher prevalence rates than males. They are more subject to **mood** and **anxiety disorders**, while **males** are more affected by issues related to **addictions** and **attention-deficit/hyperactivity disorder (ADHD****)**
- By **age**: The prevalence of mental health issues is generally **lower among young** people, but it is **increasing** at a much **faster** rate.
- By **region**: Access to mental health services and medication consumption vary considerably between **urban** and **rural** areas. Costs are **higher in urban areas**, possibly due to **better access** to mental health care.

**** attention deficit hyperactivity disorder

The mental health of young people, a central matter of concern

Our analysis of available KPIs and data in each of the five countries illustrates common trends regarding mental health of young people:

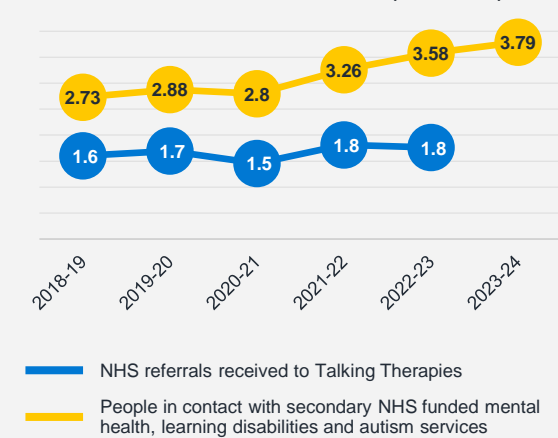
- The mental health of the **young** is deteriorating at a **faster rate** than other age groups in the five countries reviewed. This is evident in terms of both **drug consumption** and the **prevalence** of mental health issues.
- The deterioration is particularly concerning for **young girls**, who are experiencing a significant increase in **depression, anxiety, and eating disorders**. For young boys, **ADHD** is a major concern.
- According to the World Health Organisation (WHO) in its [World mental health report](#), the causes may be multifaceted, including **economic downturns** and **social polarisation, public health emergencies, and climate crisis**. Moreover, the **COVID-19 pandemic** has created a global crisis for mental health, as **depression** and **anxiety** went up by more than **25%** in the first year of the pandemic alone. **Young people** and **women** have been particularly impacted.

DATASOURCES

We used public data from **NHS (Home - NHS England Digital)**, which covers the use of publicly funded healthcare: including referrals, hospital admissions, drug prescriptions, and surveys on young people's mental health. This data follows an annual reporting period from April 1 (year N) to March 31 (year N+1).

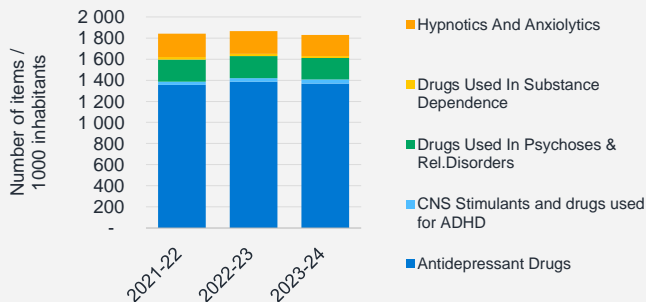
Overview of mental health

FIGURE 1: MENTAL HEALTH REFERRALS (IN MILLION)



Source : NHS

FIGURE 2: NUMBER OF MENTAL HEALTH DRUGS PRESCRIBED ITEMS PER 1,000 INHABITANTS



- The number of prescribed **mental health drugs** remained **stable** between **2021** and **2024**.
- In **2023-24**, **antidepressants** accounted for **75%** of total **prescriptions for mental health conditions**.

Source : NHS

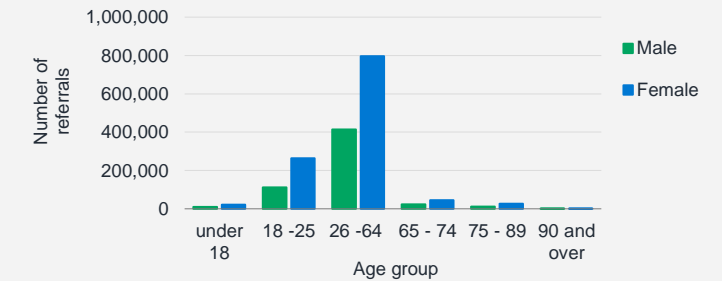
- **NHS Talking Therapies** is a programme implemented in **England** that offers therapies for treating people with **depression** and **anxiety**.
- Between **April 1, 2022**, and **March 31, 2023 (2022-23)**, the NHS Talking Therapies service received **1.8 million referrals**, which is **10% higher** than the number received between **April 1, 2018**, and **March 31, 2019**.
- In **2023-24**, **6.6% of people in England** were known to be in contact with **secondary mental health, learning disabilities, and autism services**—a **39% increase** compared to **2018-19**.
- **2.4%** of those people spent time in **hospital** as part of their contact with these services during **2023-24**.

Referrals by age and gender

- The **18-64 age group** accounts for the majority of **referrals** received for **Talking Therapies**. **Females** use the service **twice as often as males**.

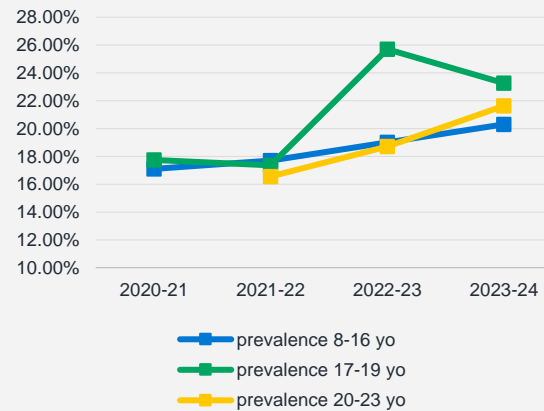
Source : NHS

FIGURE 3: NUMBER OF REFERRALS RECEIVED TO NHS TALKING THERAPIES BY AGE AND GENDER IN 2022-23



Focus on young people

FIGURE 4: PROBABLE MENTAL HEALTH DISORDERS AMONG YOUNG PEOPLE



Source : NHS

- An **NHS survey** where **children** and **young people** were asked a series of questions about their **mental health** and **wellbeing** shows that the prevalence of **probable mental disorders** increased by **more than 30%** for **17- to 23-year-olds** between **2021-22** and **2023-24**. Even though rates are **twice as high for young women** compared to **young men**, the increase is **higher for boys** than for girls.
- In **2023**, **eating disorders** were identified in **12.5%** of **17-19 year-olds**, with rates **four times higher in young women (20.8%)** than in **young men (5.1%)**.
- **Economic hardship**, **lack of access to extracurricular activities**, experiences of **bullying** (both **in person** and **online**), **climate change anxiety**, and concerns about **financial stability** and **health**—especially among **young women**—are key factors associated with higher rates of **probable mental disorders** among **children** and **young people** in **England**.

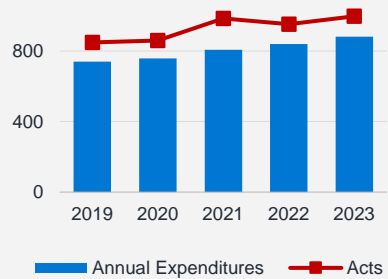
England data highlights significant mental health challenges among children and young people, with an increasing prevalence of **mental disorders**. This is a key concern as the cost of **poor mental health** to UK businesses is up to **£56 billion year** according to [Bupa](#). Mental health conditions are one of the **leading causes of sick leave** in UK businesses.

DATASOURCES

When analysing mental health in France, public data from **Open DAMIR** ([Data.gouv](#)), **AMELI** ([Assurance Maladie](#)) and **Open Medic** ([Data.gouv](#)) are particularly useful. Open DAMIR provides all Social Security reimbursements according to the characteristics of the insured persons and the care prescriber, AMELI provides information on medical consumption at the national level and Open Medic lists data on expenditure and the number of boxes of medicines dispensed in pharmacies.

Overview of mental health

FIGURE 5: COST OF PSYCHIATRIST CONSULTATIONS (IN € MILLIONS)

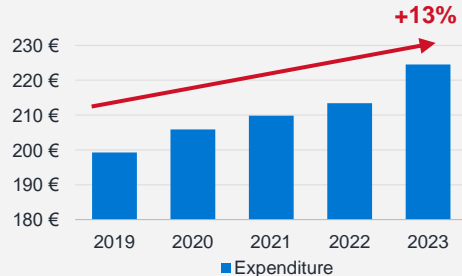


Source : AMELI

- According to the **Data Pathologies studies** by Health Insurance, **mental health expenditures** related to **psychiatric disorders** and **psychotropic treatments** amounted to **€26.2 billion** (of which **€0.8 billion** for **psychiatrist consultations**) in 2022.
- Since **2019**, spending on **psychiatric consultations** has **increased by 19%**.
- Females** tend to consult **psychiatrists** more frequently compared to **males**. In **2023**, female spending on **psychiatric care** was **1.8 times** that of men

- Since **2019**, spending on **drugs prescribed by psychiatrists** has increased by **13%**.
- This general rise in **prescriptions by psychiatrists** is partly due to the increase in the number of **consultations** and partly due to the overall growth in **medication consumption**.

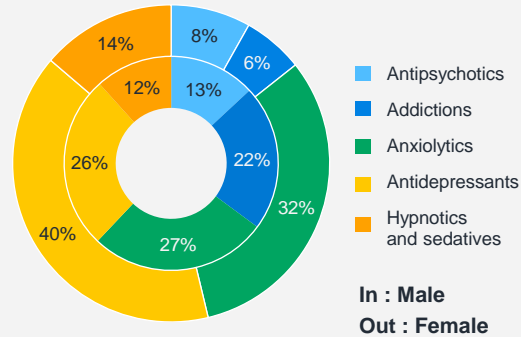
FIGURE 6: ANNUAL EXPENDITURE ON PRESCRIPTION DRUGS FROM A PSYCHIATRIST* (IN € MILLION)



Source : AMELI

Mental health drug consumption by gender

FIGURE 7: CONSUMPTION AND DISTRIBUTION OF MENTAL HEALTH DRUGS IN 2023 (IN MILLIONS OF BOXES)

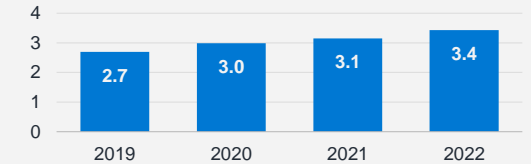


Source : Open Medic

- Females** represent **59%** of the consumption of **mental health drugs** in **2023** (in millions of boxes).
- Females** are more likely to consume **anxiolytics** and **antidepressants**, whereas **males** are more often involved in treatments addressing **addiction issues**.

Sick leave

FIGURE 9: MENTAL HEALTH-RELATED DAILY ALLOWANCE EXPENDITURE (€ BILLION)

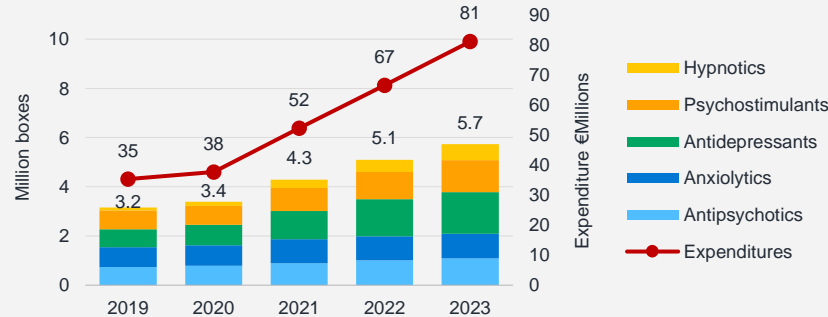


Source : [Assurance Maladie](#)

Daily Allowance expenses for mental disorders have increased by 27% between 2019 and 2022. **Psychological disorders are the cause of almost one in four long absences** (Source: Absenteeism 2023 Malakoff-Humanis).

Focus on young people

FIGURE 8: CONSUMPTION OF PSYCHOTROPIC DRUGS BY 0-19 YEARS OLD (IN MILLIONS OF BOXES)



Source : Open Medic

- Between **2019** and **2023**, the expenditure related to the consumption of **psychotropic medications** by **young patients (0-19 years)** increased significantly, with a **22% rise in 2023** compared to **2022**.
- Between **2019** and **2023**, the number of boxes of **hypnotics** and **sedatives** rose by **489%** for young people, with a staggering **684% increase** among **boys**. For **antidepressants**, the rise was **135%**, with a **173% increase** among **girls**.
- The consumption of **psychostimulants**, used in the treatment of **ADHD**, has also increased, and predominantly affects **young men**, who consume **3.5 times more** than young women.

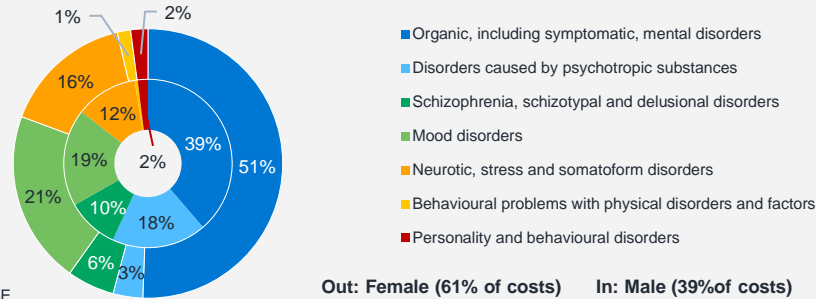
Since **2019**, spending on **psychiatric consultations** and **medications** in France has steadily **increased**, reflecting a growing demand for **mental health** support, particularly among **women** and **young people**. With rising **costs** and increasing needs, **mental health** is becoming a critical concern for **health** and **disability insurers**, especially as they contribute to recent **government initiatives** such as **psychologist consultation reimbursements**, highlighting the need for sustainable, long-term **strategies**.

DATASOURCES

When analysing mental health in Germany, public data from **Gesundheitsberichterstattung des Bundes (GBE)** and **GENESIS-online database** from **Destatis** provide various indicators on mental health from the public statutory health insurance (GKV) such as hospital patient by diagnosis, medical expenses cost by diagnosis, age group and gender, and prescribed drugs.

Overview of mental health

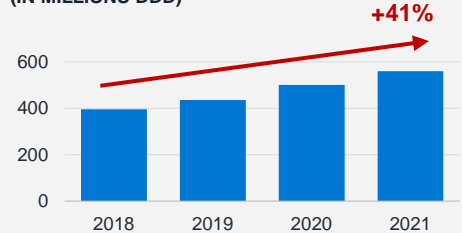
FIGURE 10: MENTAL HEALTH COST OF ILLNESS BY DIAGNOSIS AND GENDER (2020)



Source : GBE

- In **2020**, mental and behavioural disorders accounted for **13%** of the **cost of illness in Germany** and for **6%** of **hospital patients in 2022**.
- The main cause of **mental health cost of illness** is **organic disorders (46%)** and the second most common cause is **mood disorders (20%)**.
- Males** are more prone to disorders caused by **psychotropic substances**, while **females** are more prone to **mood, neurotic, stress, and somatoform disorders**.

FIGURE 11: PSYCHIATRIST-PREScribed DRUGS COVERED BY COMPULSORY HEALTH INSURANCE (IN MILLIONS DDD)

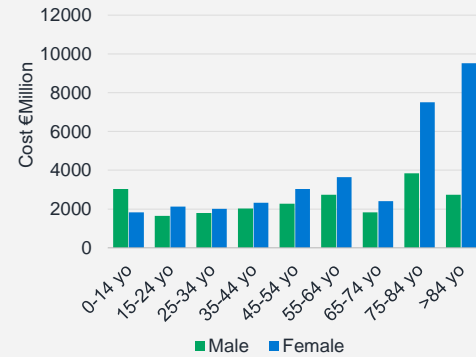


- Drugs prescribed by psychiatrists** have increased significantly between **2018 and 2021 (+41%** in millions of defined daily doses).
- They accounted for **1.0%** of total prescribed medicines in **DDD in 2018** and **1.2%** in **2021**.

Source : GBE

Mental health by age group

FIGURE 12: MENTAL HEALTH COST OF ILLNESS BY AGE GROUP AND GENDER (€M - 2020)

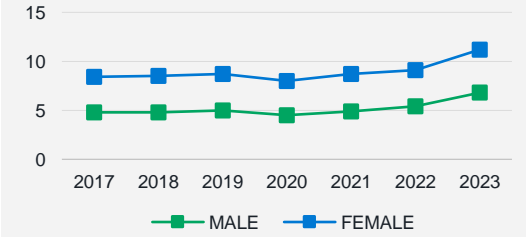


Source : GBE

- The **cost of mental health-related illnesses** increases with **age**, particularly for **women**.
- In the **0-14 age group**, costs are **66% higher for males than females**, but **25% lower in the 55-64 age group**.
- In older age groups, **gender-specific figures** may be less reliable due to **population differences**, as the number of **women** tends to be higher than that of **men**.

Sick leave

FIGURE 14: NUMBER OF CASES OF SICK LEAVE DUE TO PSYCHIATRIC AND PSYCHOSOMATIC DISORDERS (PER 100 EMPLOYEES)

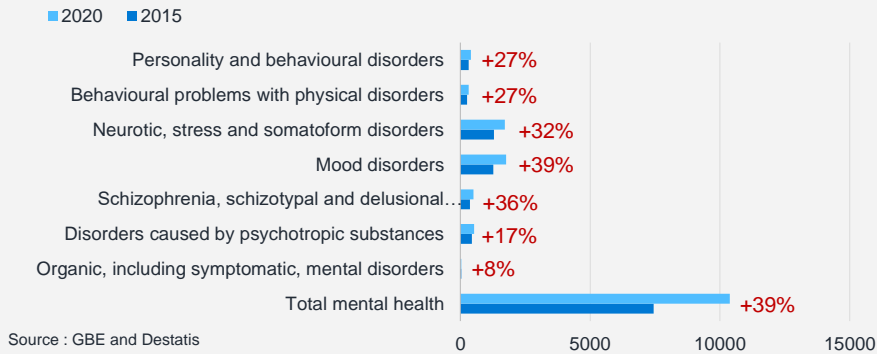


Source : Gesundheitsreport (Techniker Krankenkasse)

Between 2017 and 2023, the number of cases of sick leave due to psychiatric and psychosomatic increased by **42%** for men and **33%** for women.

Focus on young people

FIGURE 13: MENTAL HEALTH COST OF ILLNESS FOR YOUNG PEOPLE (< 30 YEARS – €M)



Source : GBE and Destatis

- In **Germany**, between **2015 and 2020**, the **cost of treating mental health** among people under 30 increased by **39%**, with **39% for mood disorders**.
- Moreover, **hospital admissions** for girls under 20 between **2018 and 2023** showed alarming trends: a **35% rise in depressive episodes**, **40% in eating disorders**, **62% in pervasive developmental disorders**, and **75% in phobic anxiety disorders**.
- Among **males**, the most striking increase was a **258% surge** in hospitalisations for **mental and behavioural disorders** due to **sedatives and hypnotics**.

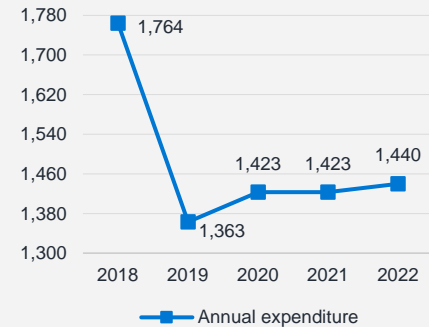
In Germany, mental and behavioural disorders account for a significant and growing share of healthcare costs, particularly driven by **mood and stress-related disorders**, with notable gender and age disparities. **Young females** are particularly affected by **depressive episodes and anxiety disorders**, while **young males** are on **sedatives and hypnotics**.

DATASOURCES

When analysing mental health in Italy, public data from **Open SISM** (salute.gov.it) is relevant. The SISM collects anonymous data on adult users of mental health services and the activities of the Mental Health Departments, which are sent to the Ministry of Health at the regional level.

Overview of mental health

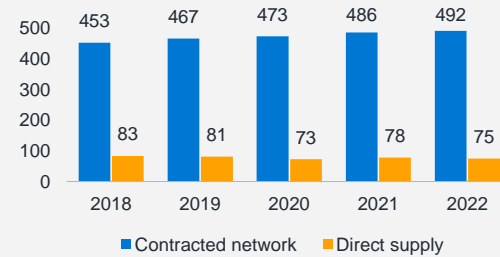
FIGURE 15: COST OF PSYCHIATRIC CARE (IN € MILLION)



Source : Open SISM

- Between **2018** and **2022**, spending on **psychiatric drugs** dispensed through the conventional system** increased by **9%**.
- This increase confirms that the reduction in the **cost of psychiatric services** is not because of an improvement in the population's **mental health**.

FIGURE 16: ANNUAL EXPENDITURE ON PSYCHIATRIC DRUGS (IN € MILLION)*



Source : Open SISM

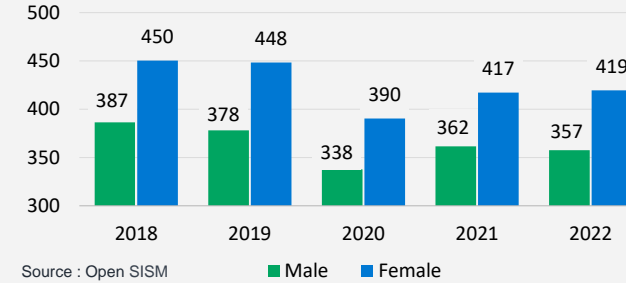
- The Organisation for Economic Co-operation and Development (OECD) reports that **Italy** dedicates only **3.4%** of its healthcare spending to **mental health**, compared to over **10%** in many other high-income countries.
- The **costs of psychiatric care** provided by the national **public system** indicate a noticeable decline in the resources allocated since. However, these costs do not correspond to the actual needs of the population, as they depend on the **funding** specifically designated for this sector in the **budget law**.

(* This includes psychotropic drugs (antidepressants, anti-psychotics and lithium

(**) In the conventional system, pharmacists purchase drugs and then distribute them to consumers through their pharmacies whereas in direct supply the National Health Service directly buys drugs from the manufacturer and provides them to patients through its facilities, such as hospitals

Number of treated users by age and gender

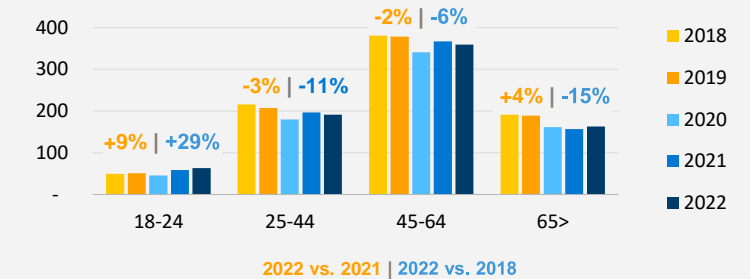
FIGURE 17: NUMBER OF TREATED USERS BY GENDER (IN THOUSAND)



Source : Open SISM

- On average, **women** have a **17%** higher number of treated users for **psychiatric disorders** compared to **men**.
- In **2021**, the number of treated users for **psychiatric illnesses** rose by **7%** for both **males** and **females** compared to **2020**, largely due to the effects of the **lockdowns**.

FIGURE 18: NUMBER OF TREATED USERS BY THE AGE GROUP (IN THOUSAND)

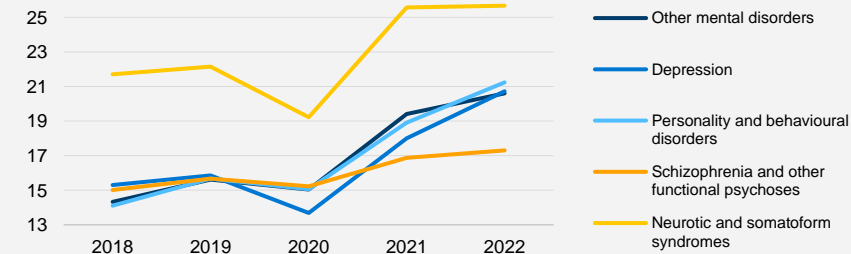


Source : Open SISM

- Above age **25**, there is a noticeable decrease in the number of treated users for **psychiatric disorders** since 2018, with an average drop of **11%** from **2018** to **2022**. This could be attributed to reduced resources in the **mental health sector**. In contrast, the **18 to 24 age group** has experienced a significant increase, rising by **29%** during the same period.

Focus on young people

FIGURE 19: YOUNG ADULTS' (18-24 YEARS) MENTAL HEALTH PREVALENCE FOR MAJOR PSYCHIATRIC DISORDERS PER 10,000 INHABITANTS



- Since **2020**, there has been a rapid and significant increase in the prevalence of **psychiatric disorders**, with an average rise of **26%** compared to **2020**. This upsurge can be attributed to the consequences of the **COVID-19 pandemic**.
- Looking at the five main disorders, **2022** shows an average increase of **33%** compared to **2018**. Among these disorders, **personality and behavioural disorders** have seen the most substantial increase, with a rise of **51%** compared to **2018**. **Cases of depression** increased by **36%**.

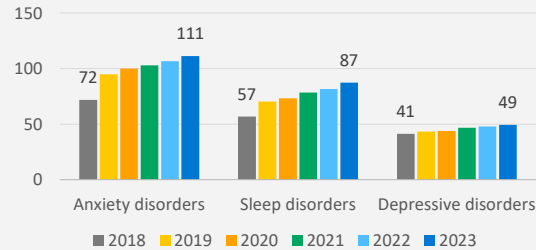
The observed decline in the reported prevalence of mental disorders may not necessarily indicate a positive trend. Instead, it may indicate significant barriers to accessing essential health services, including **long waiting times** and a **shortage of healthcare workers**. Additionally, this worsening in mental health is further evidenced by the **increasing expenditure on psychotropic medications**, particularly since the pandemic and among young people, which suggests a growing reliance on drugs.

DATASOURCES

When analysing mental health in Spain, public data from **Sanidad en Datos (sanidad.gob)** and **Ministerio de Inclusión, Seguridad Social y Migraciones (inclusion.gob)** are relevant. Sanidad en Datos contains all the health information developed jointly by the Ministerio de Sanidad and the Autonomous Communities from the Primary Care, while Ministerio de Inclusión, Seguridad Social y Migraciones provides historical data on the number of sick leave days due to mental health.

Overview of mental health

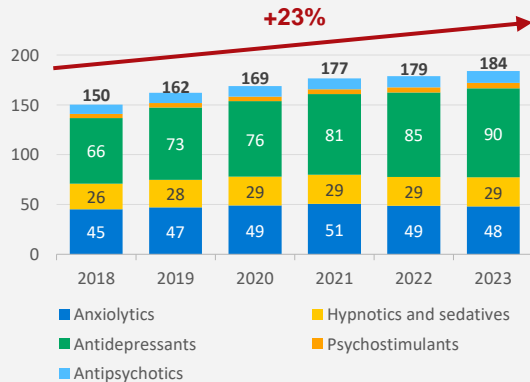
FIGURE 20: RECORDED PREVALENCE OF MOST FREQUENT MENTAL DISORDERS PER 1,000 INHABITANTS



Source : Ministerio de Sanidad

- Since 2018, DDD consumption of mental health drugs per inhabitant has increased by 23%.
- Antidepressants consumption per inhabitant has increased by 36% since 2018 and represent almost half of the total mental health drug consumption.

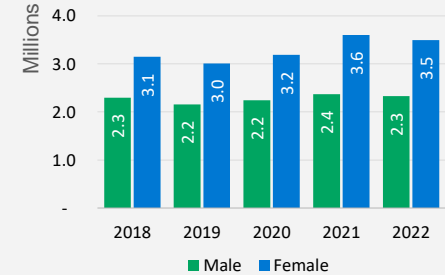
FIGURE 21: CONSUMPTION OF MENTAL HEALTH DRUGS PER 1,000 INHABITANTS IN DDD PER DAY



Source : Ministerio de Sanidad

Psychiatric consultations by gender

FIGURE 22: ANNUAL NUMBER OF PSYCHIATRIC CONSULTATIONS IN HOSPITAL BY GENDER *



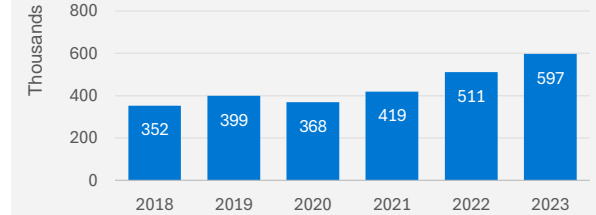
* Split based on psychiatrist interconsultations, which are requests made from primary care for a patient to be seen by a hospital specialist.

Source : Ministerio de Sanidad

- Women tend to see more psychiatrists per year than men. In 2022, women psychiatric consultation attendance was 50% higher than for men.
- The gap between men and women is increasing because the number of consultations was only 37% higher for women in 2018.

Sick leave

FIGURE 24: ANNUAL SICK LEAVE CASES DUE TO MENTAL HEALTH

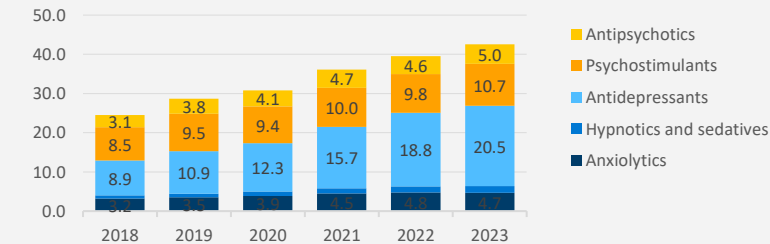


Source : Ministerio de Inclusión, Seguridad Social y Migraciones

During the period 2018 to 2023, mental health-related sick leave has almost doubled. Among young people (16 to 25 years old), in the last five years, the figure has grown by 107%.

Focus on young people

FIGURE 23: ANNUAL CONSUMPTION OF MENTAL HEALTH DRUGS PER 1,000 INHABITANTS IN DDD PER DAY FOR 15 – 24 YEARS OLD



Source : Ministerio de Sanidad

- In the 15 to 24 years old age group, the annual consumption of antidepressants has increased by 131% between 2018 and 2023 (236% for 0-14 years old), and the consumption of hypnotics and sedatives by 109% (250% for 0-14 years old).
- The increase between 2018 and 2023 of mental health drugs consumption was three times higher for young girls than for young boys.
- This increasing trend has been particularly noticeable from 2021 onwards, suggesting that the pandemic may have aggravated mental health problems for young people, especially for women, according to data from the Ministerio de Sanidad.

Improving mental health is a major challenge for the Ministerio de Sanidad. Due to the increase in mental health cases and medication use, particularly among young people and women, public healthcare is expanding its mental health budget to support prevention campaigns, professional training, and better resource access, while the private sector complements these efforts with specialized care and medication support.

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