

# Cost of depression in Europe

## EBC perspective

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***To promote brain research in Europe  
and to improve the quality of life of  
those affected by brain diseases***

# The Growing EBC Membership



## Ordinary Members (Board members)

- EANS - European Association of Neurosurgical Societies
- ECNP - European College of Neuropsychopharmacology
- EFNA - European Federation of Neurological Associations
- EFNS - European Federation of Neurological Societies
- EPA - European Psychiatric Association
- FENS - Federation of European Neuroscience Societies
- GAMIAN Europe - Global Alliance for Mental Illness Advocacy Networks
- 2 Industry representatives

## Associate Members (non-voting)

- FEPSCO – Federation of European Psychophysiology and Cognitive Neuroscience Societies
- EACIC – European Accreditation Committee in CNS
- B4B – Brains 4 Brain

## Observers to the Board

- EDAB - European Dana Alliance for the Brain
- WHO - World Health Organisation
- ESN – European Societies of Neuropsychology
- EUFAMI – European Federation of Associations of Families of People with Mental Illness

## The Burden of Brain Diseases in Europe

- Olesen J and Leonardi M. Eur J Neurol 2003, 10:471-7.

## Cost of Brain Disorders in Europe

- Andlin-Sobocki P, Jonsson B et al. Eur J Neurol 2005, 12 Suppl 1:1-27

## Size and Burden of Mental Disorders in Europe

- Wittchen, H-U et al. Eur. Neuropsychopharmacol 2005, 15(4):355-490.

## Research Allocation for Brain Research in Europe

- Sobocki P et al. Eur J Neurosci 2006, 24:1-24.

## Consensus Document on European Brain Research

- Olesen J, Baker MG et al. J Neurol Neurosurg Psychiatry 2006, 77 Suppl1:i1-49.

**Gustavsson A, et al.**  
**Cost of disorders of the brain in Europe 2010.**  
***Eur Neuropsychopharmacol* 2011**



# CBDE II Update



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Published online 4 October 2011 | Nature | doi:10.1038/478015a

News

### Trillion-dollar brain drain

Enormous costs of mental health problems in Europe matched by research investment.

Kerri Smith

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SALUD

### Las patologías relacionadas con el cerebro afectan a uno de cada tres europeos

El impacto social y económico en la Unión Europea de las disfunciones mentales y neurológicas es enorme.



### Europe's brain disorder bill hits 800 billion euros

Reuters - Kate Kelland, Janet Lawrence - 2 hours ago  
LONDON (Reuters) - The annual cost of brain disorders in Europe has soared to 798 billion euros (\$1 trillion) and the region is facing a political, social and financial "ticking bomb" as more people fall prey to mental illnesses. ...

### Cost of brain disorders 'doubles'

The Press Association - Oct 3, 2011

The cost of treating brain disorders, such as depression, insomnia, Parkinson's and stroke, has more than doubled in just six years, according to a study. Researchers warn of a financial "ticking timebomb" across Europe, with one in three people in ...

### Brain Disorder Bill Hits EUR800 Billion as Europe Faces 'Ticking Bomb', Warns ...

MarketWatch (press release) - 3 hours ago  
BRUSSELS, Oct 04, 2011 (BUSINESS WIRE) -- The annual cost of brain disorders in Europe has soared to 798 billion euros in what a new study describes as a social, political and financial "ticking bomb". The report, entitled "Cost of disorders of the ...

### Cost of treating brain disorders a "ticking timebomb", report warns

Mirror.co.uk - Lachlan Mackinnon - 14 hours ago

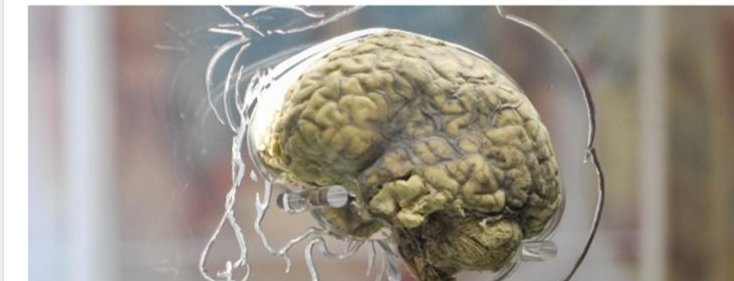
In the UK, 9.7 million people are thought to have a brain disorder, the report in the European Neurocognitive Disorders Journal says. Experts from universities and hospitals across Europe were behind the ...



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## EU parliament told of 'ticking bomb' cost of brain disorders

Tuesday 04 October 2011

## The Telegraph

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### Experts warn of 'ticking timebomb' of cost of treating brain disorders

The cost of treating brain disorders, such as depression, insomnia, Parkinson's, stroke, has more than doubled in just six years, according to a study.

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## ELMUNDO.es

Lider mundial en español | Martes 04/10/2011. Actualizado 14:16h.

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### Un informe europeo estima el coste de los trastornos neurológicos

El impacto social y económico ha superado ya al causado por el cáncer  
En 2010, su coste en la Unión Europea alcanzó los 800.000 millones de euros

Efe | Bruselas  
Actualizado martes 04/10/2011 13:18 horas

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### Europe's brain disorder bill hits 800 billion euros

By Kate Kelland  
LONDON | Tue Oct 4, 2011 7:04am EDT

(Reuters) - The annual cost of brain disorders in Europe has soared to 798 billion euros (\$1 trillion)

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### Cost of brain disorders 'doubles'

(UKPA) - 1 day ago

The cost of treating brain disorders, such as depression, insomnia, Parkinson's and stroke, has more than doubled in just six years, according to a study.

Researchers warn of a financial "ticking timebomb" across Europe, with one in three people in 2010 suffering a brain disorder or caring for somebody with one, a figure that is on the rise.

In the UK, 9.7 million people are thought to have a brain disorder, at a cost of more than 134 billion euro (around £116 billion) a year. Overall, almost 800 billion euro (£689 billion) is now

## PharmaTimes ONLINE

PRESS ASSOCIATION

# **ECNP/EBC\* Report 2011:**

## **Cost of Disorders of the Brain in Europe**

**\*European College of Neuropsychopharmacology / European Brain  
Council**



# ECNP/EBC Report 2011

## [Results]

- **€798 billion** => €1550 per capita
- **60% direct costs** (37% direct healthcare costs and 23% direct non-medical costs); 40% indirect costs associated with patients' production losses
- Over **160 million people affected** – more than **36%** of the total region's population
- **26% of DALY** – more than from any other group of medical disorders; more than in any other part of the world
- No evidence for any improvement since previous pan-European study conducted in 2005
- The burden of disorder of the brain will likely increase further because of the **aging European population**.

# **ECNP/EBC Report 2011**

Cost of Disorders of the Brain in Europe

Focus on:

**DEPRESSION**

# Cost of depression in Europe

- Depression is the single **most burdensome disorder** of the brain
- The European **prevalence** of major **depression** (age 18+):  
**6,9%**
- The European prevalence of **bipolar disorder** (age 18-65):  
**0,9%**
- The **overall cost of mood disorders** (depression ICD-10 codes: F32, F33 & bipolar disorder: F30, F31):

**€113.4 billion**

# Number of persons with mood disorders in European countries:

• Austria	547,449	• Latvia	148,667
• Belgium	691,778	• Lithuania	217,623
• Bulgaria	501,200	• Luxembourg	31,887
• Cyprus	51,604	• Malta	26,884
• Czech Rep.	693,194	• Netherlands	1,052,351
• Denmark	349,162	• Norway	304,011
• Estonia	87,238	• Poland	2,499,229
• Finland	343,060	• Portugal	692,059
• France	4,054,124	• Romania	1,402,169
• Germany	5,408,460	• Slovakia	355,049
• Greece	741,574	• Slovenia	135,176
• Hungary	656,494	• Spain	3,002,725
• Iceland	19,447	• Sweden	597,797
• Ireland	272,233	• Switzerland	507,641
• Italy	3,963,790	• United Kingdom	3,936,897

**EUROPE**

**33,290,962**

# Cost per persons with mood disorders in European countries (€PPP, 2010):

• Austria	4116
• Belgium	3873
• Bulgaria	940
• Cyprus	2962
• Czech Rep.	1934
• Denmark	4143
• Estonia	1645
• Finland	3448
• France	3427
• Germany	4541
• Greece	3000
• Hungary	1934
• Iceland	4595
• Ireland	4242
• Italy	3126

• Latvia	1449
• Lithuania	1341
• Luxembourg	5621
• Malta	2524
• Netherlands	3418
• Norway	4865
• Poland	1796
• Portugal	2481
• Romania	1311
• Slovakia	1671
• Slovenia	2436
• Spain	3232
• Sweden	3793
• Switzerland	4224
• United Kingdom	4887

**EUROPE**

**3406**

# Total costs of mood disorders in European countries in 2010 (€PPP million, 2010):

• Austria	2253	• Latvia	215
• Belgium	2679	• Lithuania	292
• Bulgaria	471	• Luxembourg	179
• Cyprus	153	• Malta	68
• Czech Rep.	1341	• Netherlands	3597
• Denmark	1446	• Norway	1479
• Estonia	143	• Poland	4489
• Finland	1183	• Portugal	1717
• France	13,892	• Romania	1838
• Germany	24,561	• Slovakia	593
• Greece	2225	• Slovenia	329
• Hungary	1269	• Spain	9705
• Iceland	89	• Sweden	2268
• Ireland	1155	• Switzerland	2144
• Italy	12,392	• United Kingdom	19,238

**EUROPE**

**113,405**

# Cost per person and total costs by type of costs, mood disorders

## **Cost per patient (€PPP, 2010)**

Direct healthcare costs	781
Direct non-medical costs	464
Indirect costs	2161
<b>Total</b>	<b>3406</b>

## **Total costs (€PPP million, 2010)**

Direct healthcare costs	26,016
Direct non-medical costs	15,437
Indirect costs	71,952
<b>Total</b>	<b>113,405</b>

Direct healthcare costs include all goods and services related to prevention, diagnosis and treatment, e.g. physician fees and hospitalization.

Direct non-medical costs cover other goods and services related to the disorder, e.g. social services, special accommodation and informal care.

Indirect costs cover work absences or retirement.

# The most costly and prevalent brain disorders in Europe

## Total costs (€PPP million, 2010):

1. <b>Mood disorders</b>	<b>113,405</b>
2. Dementia	105,163
3. Psychotic disorders	93,927
4. Anxiety disorders	74,380
5. Addiction	65,684
6. Stroke	64,053
7. Mental Retardation	43,301
8. Sleep disorders	35,425
9. Traumatic brain injury	33,013
10. Personality disorder	27,345

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Cardiovascular disease	182
Cancer	150 – 250

## Prevalence:

1. Headache	152,812,362
2. Anxiety disorders	69,067,905
3. Sleep disorders	44,857,647
4. <b>Mood disorders</b>	<b>33,290,962</b>
5. Somatoform disorders	20,404,985
6. Addiction	15,538,043
7. Stroke	8,238,346
8. Dementia	6,341,179
9. Child/Adolescent dis.	5,932,112
10. Psychotic disorders	4,997,139



# Recommendations:

- Increase support of **research and encourage industry** and investors to engage in research on depression
- **Focus on the prevention** of depression, and develop the best practice models in the organization of **healthcare systems and social services**
- **Consider to include in the curricula and training elements** regarding the costs and social burden of depression
- Monitor the impact of the prevention and treatment of depression on its costs.

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