

May 2023. Sector snapshot

Mental health and personal autonomy in Catalonia

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ACCIÓ
Government of Catalonia



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Carried out by

IDOM

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ACCIÓ Business Strategy Unit

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1. The scope of mental health and personal autonomy

Definition and factors influencing mental health

Mental health is a **state of well-being** in which the individual is **aware** of **their own abilities** and can cope with the normal stress of their life, work productively and fruitfully, and can **contribute** to their **community**. The **main factors** that influence **mental health** are as follows:



- Psychological characteristics
- Emotional skills
- Lifestyle
- Genetic predisposition

- Family and friends
- Work situation
- Gender
- Sociocultural status
- Place of residence
- Culture
- Public work and health policies



Individual factors

Environmental factors

Protective factors (improve mental health)

Risk factors (worsen mental health)



- Supportive social network
- Healthy lifestyle habits
- Quality education
- Decent work

- Drug abuse
- Exposure to unfavorable social, economic, geopolitical and environmental circumstances such as poverty, violence or inequality



Source: World Health Organization (WHO)

Global data on mental health

- Worldwide, **450** million people are affected by a **mental health** problem which has a serious effect on their life. Of these, between **35%** and **50%** **receive no or inadequate treatment**.
- **12.5%** of all health problems are **mental disorders**.
- More than **300** million people in the world live with **depression**, a mental health problem that has **increased** considerably in recent years.
- It should be noted that some **800** thousand people **commit suicide** every year. It is the second cause of death in people in the **15** to **29** age bracket.
- **50%** of mental health problems in adults begin before the age of **14**, and **75%** before **18**.
- **Depression** is the **main** cause of disability in the world and it is estimated that **5%** of all adults suffer from it.

Data on mental health in Spain

- In Spain, between **2.5%** and **3%** of the adult population have at least one **serious mental disorder**, which amounts to more than a million people, and almost half of young Spaniards aged between **15 and 29** (48.9%) report that they have had a **mental health problem**.
- **6.7%** of the Spanish population are affected by **anxiety**, exactly the same percentage of those with **depression**.
- **88%** of care and support tasks are carried out by informal caregivers (family, friends, etc.)
- **8** out of every **10** people with mental health problems **are unemployed (83.1%)**.



Source: Confederation of Mental Health Spain, WHO, FAD Youth Health and Well-being Barometer (2019)

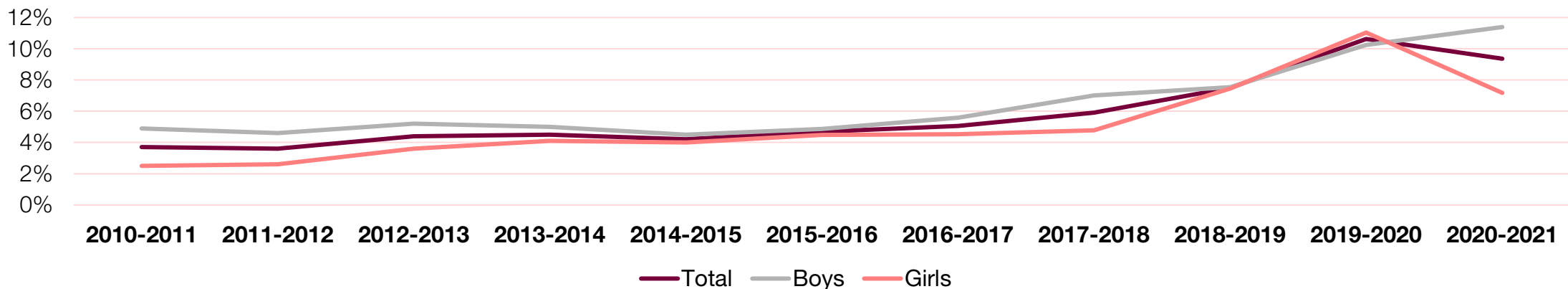
Data on mental health in Catalonia

Unfortunately, in Catalonia the data on mental health are not very positive either. About 1 in every 4 people (over 14 years old) suffer from emotional distress and almost 1 in 10 have been diagnosed moderate or severe depression.

In addition, children are increasingly suffering from mental health-related problems:

- In Catalonia, more than 9% of the child population (ages 4 to 14) are likely to suffer from a mental health problem. Of this population at risk of suffering from mental health problems, there are more boys (11.4%) than girls (7.2%).
- Reviewing the data from the last decade, it should be noted that the probability of suffering from a mental health problem among all girls and boys has been growing progressively since 2011. This growth has risen sharply in the last 3 years, from less than 6% in 2018 to percentages close to 10% in 2021.
- Comparing the different health regions, Terres de l'Ebre (23.5%) and the Barcelona Metropolitan Area (18.1%) have much higher percentages than the other regions.

Probability of having a mental health problem among the child population (4-14 years)



Source: Health status, health-related behaviors and the use of health services in Catalonia 2021 (ESCA health survey, main results)

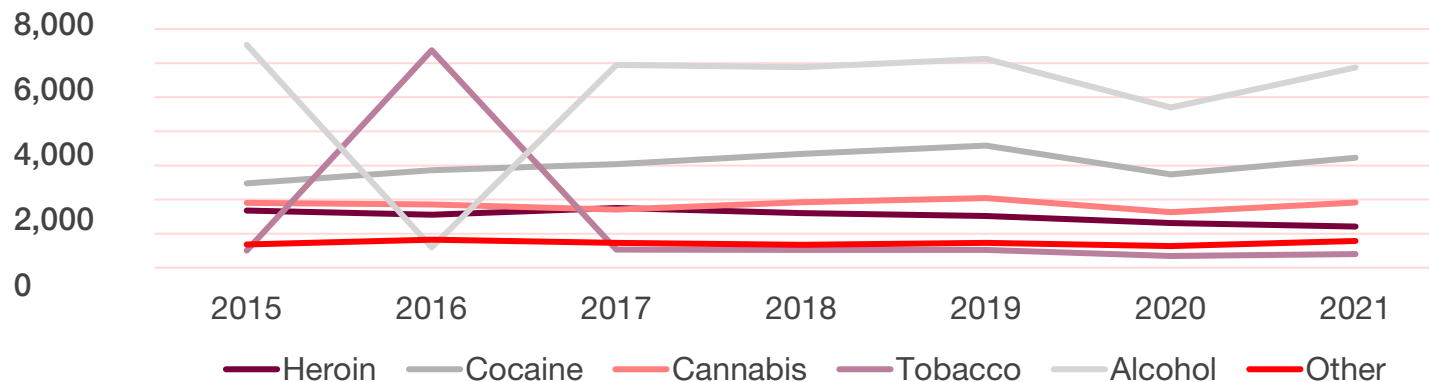
The situation of addictions in Catalonia

- In Catalonia, alcohol has been the most frequent drug when starting treatment in a Drug Addiction Care and Follow-up Center (CAS) in recent years. Cocaine is also a substance for which many addiction treatments have been started.
- During 2021, treatment starts have increased for all drugs, with the exception of heroin, which has decreased slightly. The sum total of initiated treatments increased by more than **two thousand** in Catalonia from 2020 to 2021. The substance that has grown the most in the number of treatment starts has been cocaine.
- Drug addiction care services are the types of services that have the highest proportion of patients with a low socio-economic status. Some of the health centers with the highest percentage of chronic mental health patients are CAS CECAS, the one in the district known as “La Mina” and the Les Corts health center.

Health centers with the lowest and highest percentage of chronic mental health patients (2017)

Sant Cugat del Vallès CAS	19.0
Balaguer CAS	19.0
La Garrotxa CAS	26.7
Lleida CAS	26.8
Blanes CAS	31.8
Tàrraga CAS	57.7
Mollerussa CAS	58.3
La Mina CAS	60.5
Les Corts CAS	64.0
CECAS	65.3

Treatment starts for drug use in Catalonia (2015-2021)

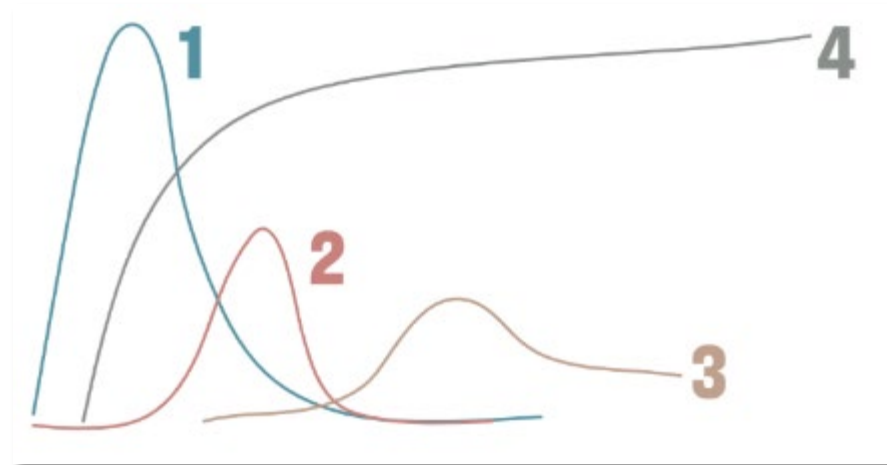


Note: Other: Including opiates other than heroin, stimulants other than cocaine, hypnotics and sedatives, hallucinogens, inhalants and other psychoactive substances.

Source: Institute of Statistics of Catalonia (IDESCAT) and Health Quality and Assessment Agency of Catalonia (AQuAS)

The impact of the pandemic on the mental health of the Catalan population

- 1 The effect of the impact of lockdown and the direct consequences of COVID-19 on mental health.
- 2 Effects of disconnection from the mental health network and delay in diagnosis.
- 3 Effects due to the limitation of the recovery processes of serious mental disorders.
- 4 Indirect effects of the pandemic due to the consequences of the worsening economic situation.



127.32% Increase in consultations for anxiety disorders.

74.41% Increase in consultations about suicide and self-harm behavior

25% Increase in first visits for anxiety disorders and for eating behavior disorders

2.26% Reduction in consultations on alcohol and drugs

27% Increase in suicide attempts and self-harm behavior among young people under 18 in 2020 compared to 2019

Source: 'Ara' newspaper, from data provided by the Department of Health of the Government of Catalonia

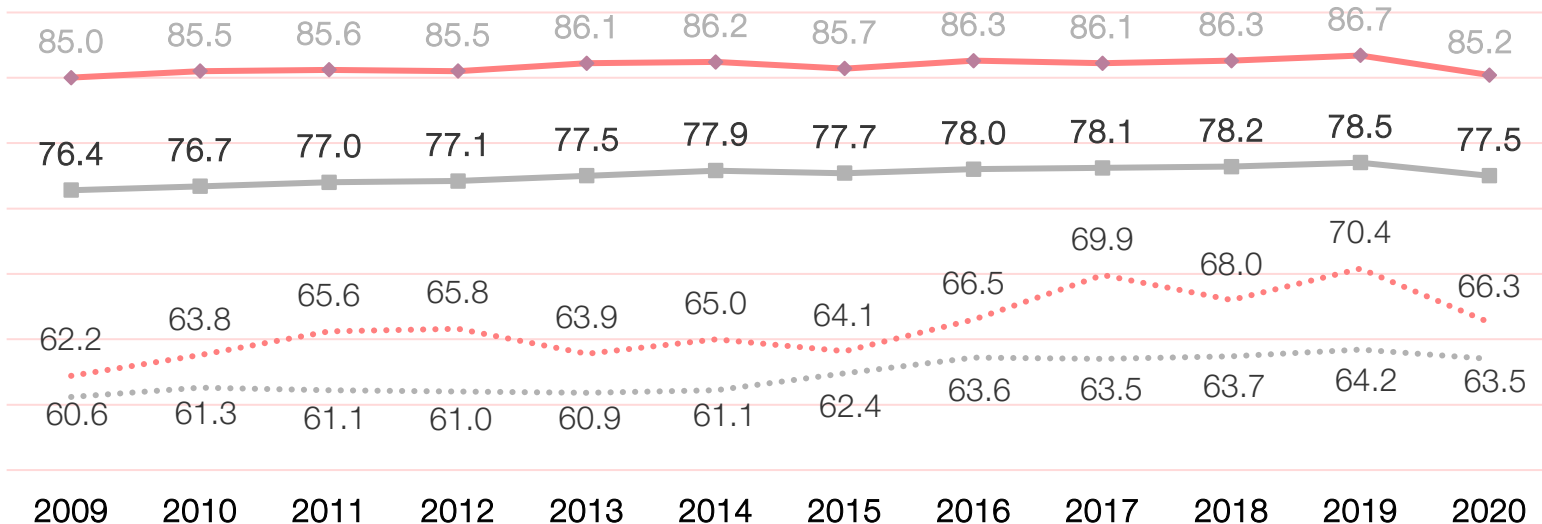
Definition of personal autonomy and life expectancy

Personal autonomy is the **ability to control, cope with and take personal decisions** on one's own initiative on how to live in accordance with one's own norms and preferences, as well as to carry out the basic activities of daily life.

Therefore, the real challenge is to maintain autonomy and independence as we age, and we must do everything in our power to live **as long as possible** in the **best conditions**.

Life expectancy at birth is an indicator that estimates the **average number of years** that a person can expect **to live**. It is one of the most widely-used demographic indicators around the world.

Life expectancy in the European Union



In the **European Union**, women's life expectancy (**85.2**) is substantially **higher** than that of **men (77.5)** and the trend has risen during the last decade, except in 2020 due to the pandemic. Life expectancy in good health is also slightly higher among **women (66.3)** than among **men (63.5)**.

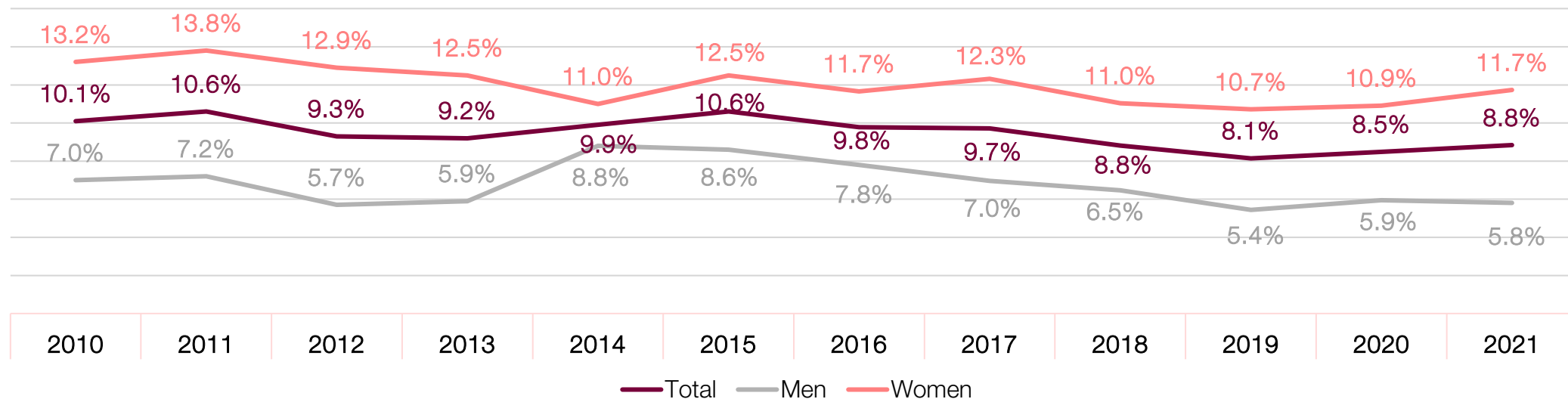
- Men Life expectancy in good health
- Men Life expectancy
- Women Life expectancy in good health
- ◆— Women Life expectancy

Source: Law 39/2006, of 14 December, and European Survey of Income and Living Conditions (EU-SILC). Eurostat.

Data on personal autonomy in Catalonia

- Lack of personal autonomy is closely related to different factors, including **age and sex**.
- In Catalonia, only **2.7%** of people aged **15 to 44** lack personal autonomy. In contrast, **38.5%** of people aged **75 and over** find it difficult to carry out daily life activities due to health problems.
- In addition, **women (11.7%)** experience a greater lack of personal autonomy than **men (5.8%)**. It must be said that this lack is much higher among people without primary or secondary education (**24.5%**) than in people with a higher education qualification (**3.5%**).

Percentage of the Catalan population with a lack of personal autonomy (dependency)



Source: Department of Health of the Government of Catalonia (2021): Executive summary of the main results of the 2021 ESCA health survey

Chronicity in Catalonia

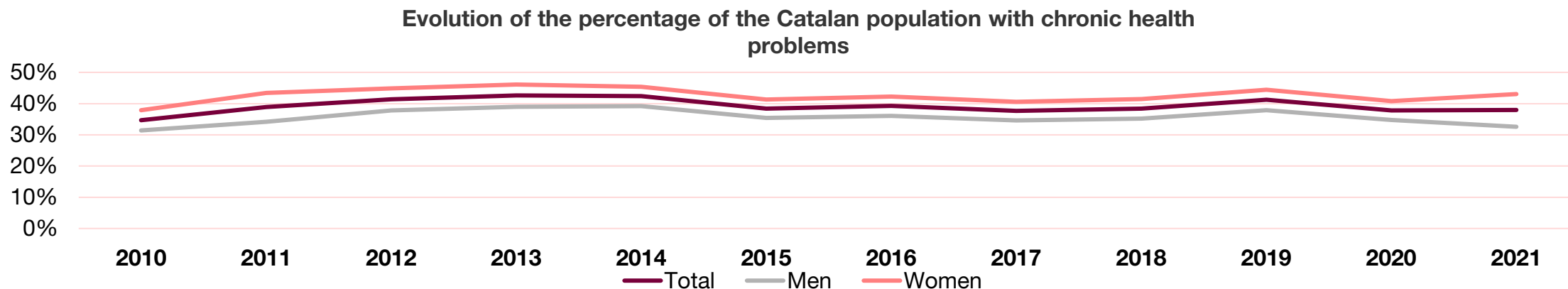
A **chronic disease** is defined as one that which is of **long duration**, usually with **slow progression**, which requires ongoing medical attention and usually imposes limits on basic day-to-day activities. It is the **result** of a **combination of genetic, physiological, environmental and behavioural factors**, and is usually associated with the elderly.

Some of the most common **chronic diseases** are cardiovascular diseases, cancer, chronic respiratory diseases and diabetes. Unfortunately, according to data from the **WHO**, these types of diseases are the cause of death of **41 million** people every year, which is equivalent to **74%** of all deaths worldwide.

In Catalonia, almost **38%** of the population aged **15** or over have a **long-term health problem**, with a much higher incidence among women (**43%**) than among men (**32.6%**).

Taking into account the data over the last decade, the percentage of the population with chronic health problems peaked in 2013 and this percentage was stabilising with small decreases until 2021. This year shows an upward trend among women and a downward trend among men.

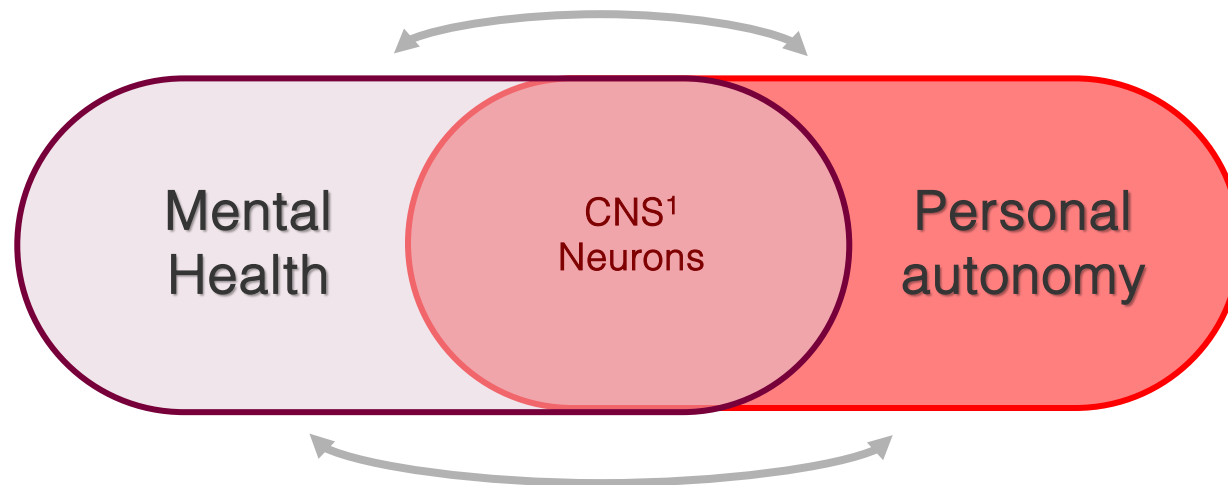
It should be noted that the prevalence increases significantly as the age group increases. **From the age of 65**, the percentage of the population with chronic health problems approaches **70%**.



Source: World Health Organization, ESCA health survey (2021) and Department of Health

The close relationship between mental health and personal autonomy

- **Human beings** are composed of **two vital parts**: the mental or psychic and the physical. Mental health is summed up as the emotional, psychological and social well-being of an individual. On the other hand, personal autonomy is related to the physical and mental capacity of human beings to make decisions of their own free will.
- It is clear that these two parts are linked in one way or another. **Mental illnesses** are, to a large extent, **consequences of neural failures**, which can be observed in the central nervous system, and which affect people's physical and mental capacity to make decisions of their own free will (personal autonomy). It has also been shown that people with a lack of personal autonomy are more susceptible to mental health problems such as depression or affective disorders.



Mental illnesses often lead to a worsening of personal autonomy, to a lesser or greater extent. Almost **9 in 10** people diagnosed with mental illness also have some officially recognized degree of dependency.

Note: (1) CNS: Central Nervous System

Source: ACCIÓ

2. Mental health and personal autonomy in Catalonia

Definition of the sector in Catalonia

- The **mental health and personal autonomy sector** can be defined as the combination of **4 main sub-sectors**. Each includes different categories of products and services as shown below:



Pharmaceutical and complementary industry



Development of drugs included in the therapeutic area of the Central Nervous System (CNS)



Nutrition and functional/personalized food to improve quality of life



Digital Health



Tele-health platforms and services



Digital platforms and applications focused on improving the state of mental health, overcoming phobias and/or improving personal autonomy



Medical technology



Medi-tech products and devices



Technical aids, orthopedics and ophthalmology and ENT (Ear, Nose and Throat) products



Treatments and technologies applied to neuroscience



Service providers



Mental Health Services and treatments



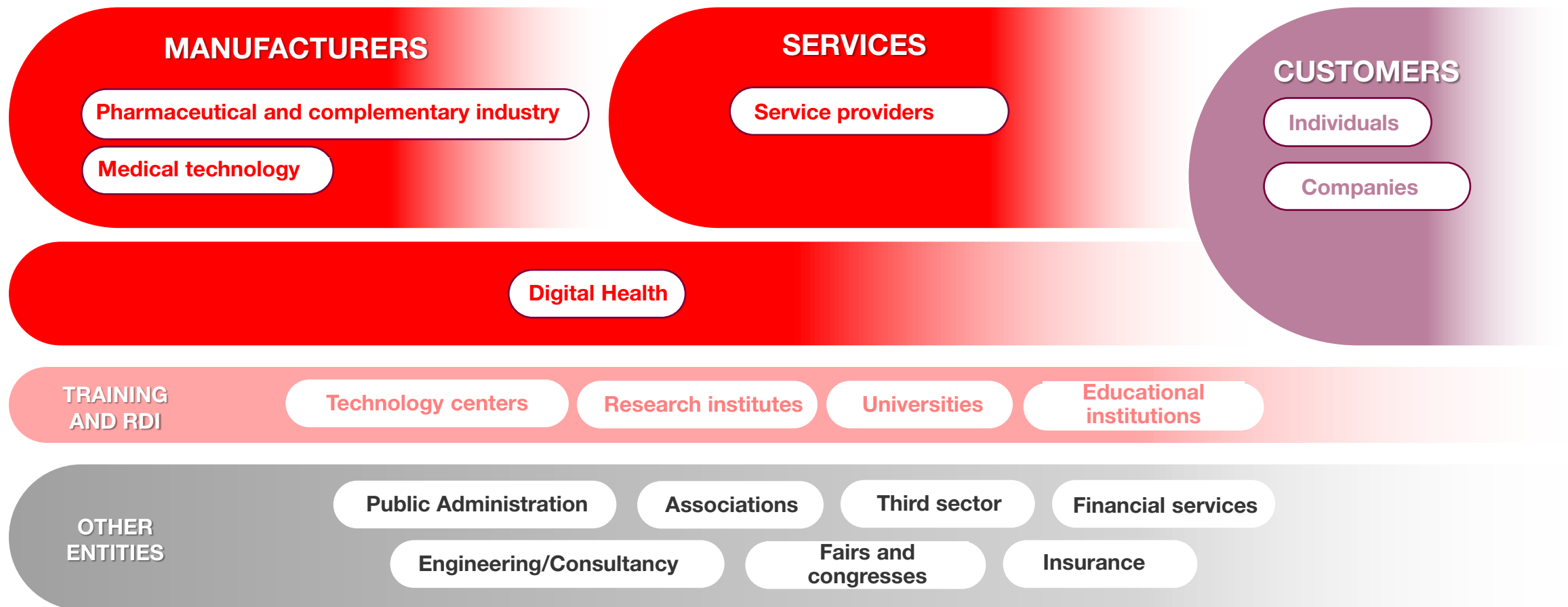
Home Care services and treatments



Social care and healthcare services and treatments

Source: ACCIÓ based on cluster websites and related news

The value chain of mental health and personal autonomy



Key data of companies that offer products and services in the field of mental health and personal autonomy (I)



772 companies



€9.2 B in turnover



62,104 employees

Types of companies



- 82% of the companies are SMEs.
- Half of the companies were set up between 2000 and 2020, while the rest were founded before the 21st century.
- The Service Providers segment encompasses more than two thirds of the companies (68%).

Turnover



- The sector accounts for 3.79% of the total GDP¹ in Catalonia.
- The segment with the highest turnover percentage is the Pharmaceutical and Complementary Industry with almost half of the total turnover (48%).

Employees



- In terms of employment, service providers also account for most of the employees in the sector (70%).

Territorial distribution

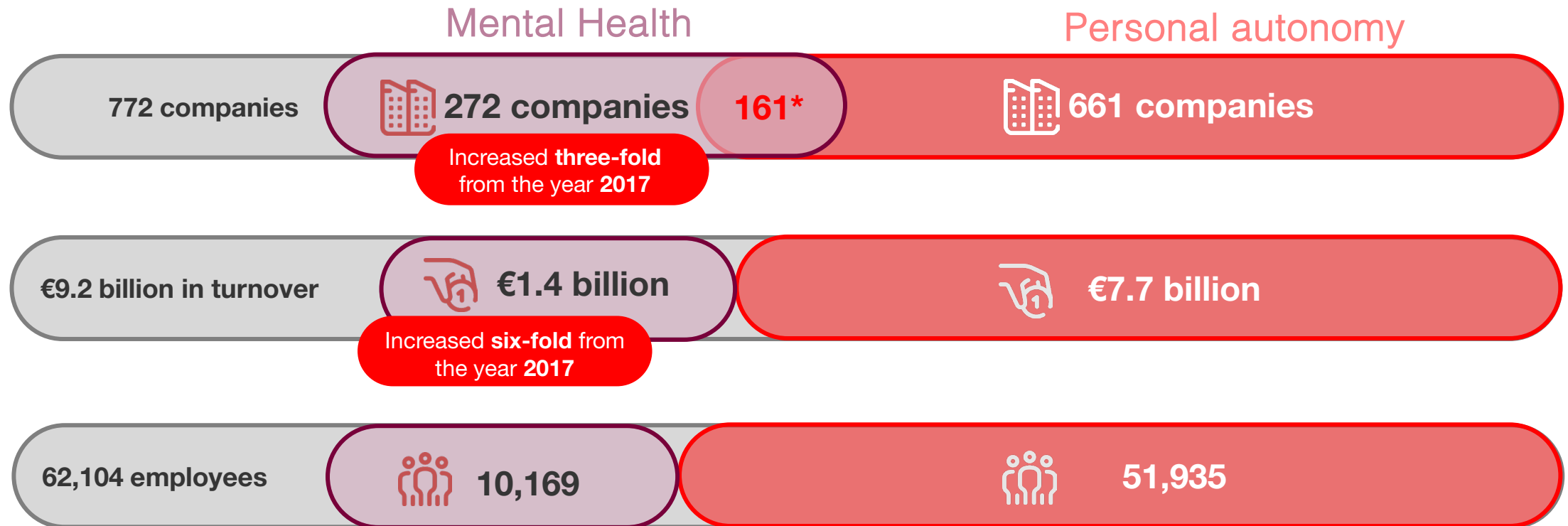


- 287 companies (37%) in the mental health and personal autonomy sector are located in Barcelona.
- 79% of the companies in the sector are located in the province of Barcelona; in Girona: 6%, in Lleida: 5% and Tarragona: 4%.

Note: GDP calculated taking into account the current prices as set out in the 2021 annual IDESCAT.

Source: ACCIÓ based on existing databases, information from interviews, related CCAE activity codes according to the information available from SABI (companies with a turnover of more than 1 million euros) and secondary information sources.

Key data of companies that offer products and services in the fields of mental health and personal autonomy (II)



Note: Companies located at the intersection of the two sub-sectors conduct part of their business both in the field of mental health and in that of personal autonomy. Therefore, they are counted equally in each area.

Source: ACCIÓ based on existing databases, information from interviews, related CCAE activity codes according to the information available from SABI (companies with a turnover of more than 1 million euros) and secondary information sources.

Quantification of the different segments included in the mental health and personal autonomy sectors

MANUFACTURERS

Pharmaceutical and complementary industry



119 companies
(15%)



€4.4 billion
(48%)



10,528 employees
(17%)

Medical technology



85 companies
(11%)



€730 million
(8%)



3,098 employees
(5%)

Digital Health



45 companies
(6%)



€2.2 billion
(24%)



4,834 employees
(8%)

SERVICES

Service providers



523 companies
(68%)



€1.82 billion
(20%)

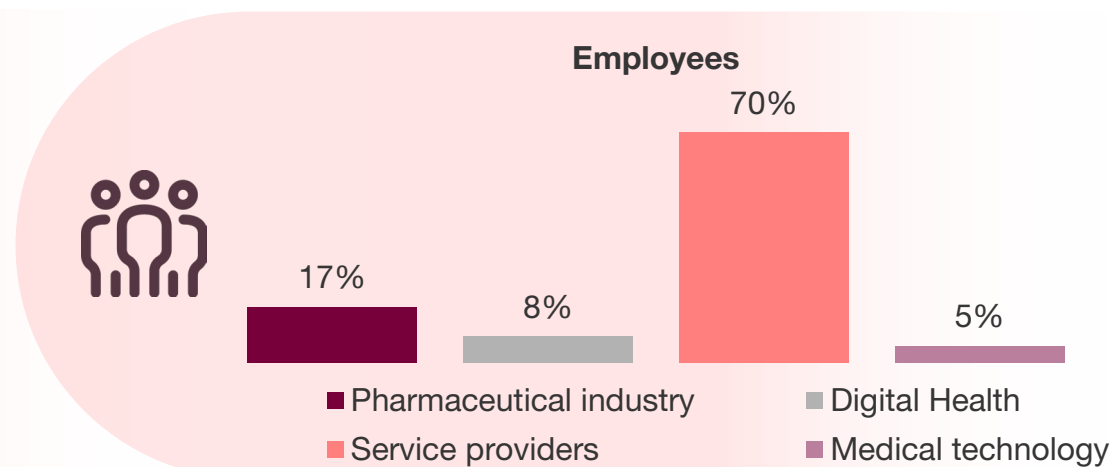
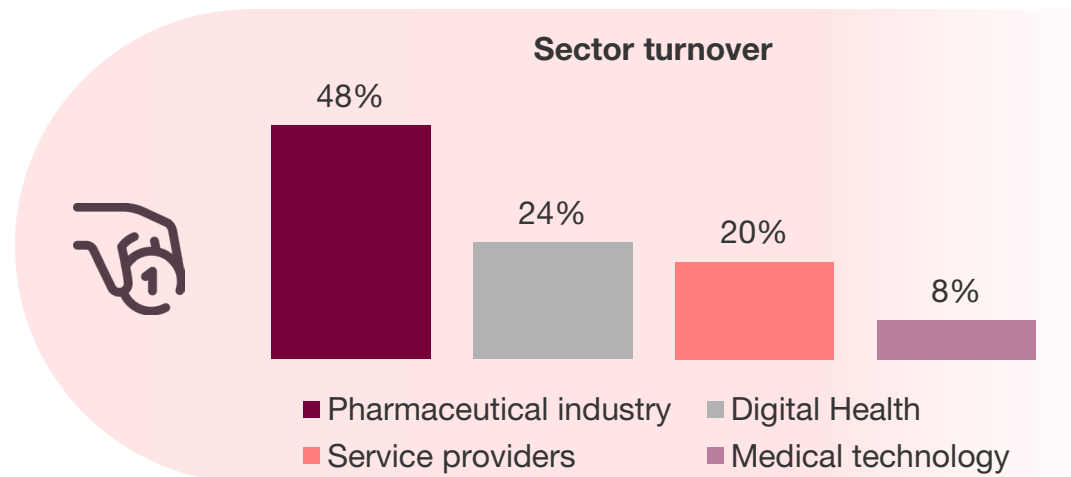
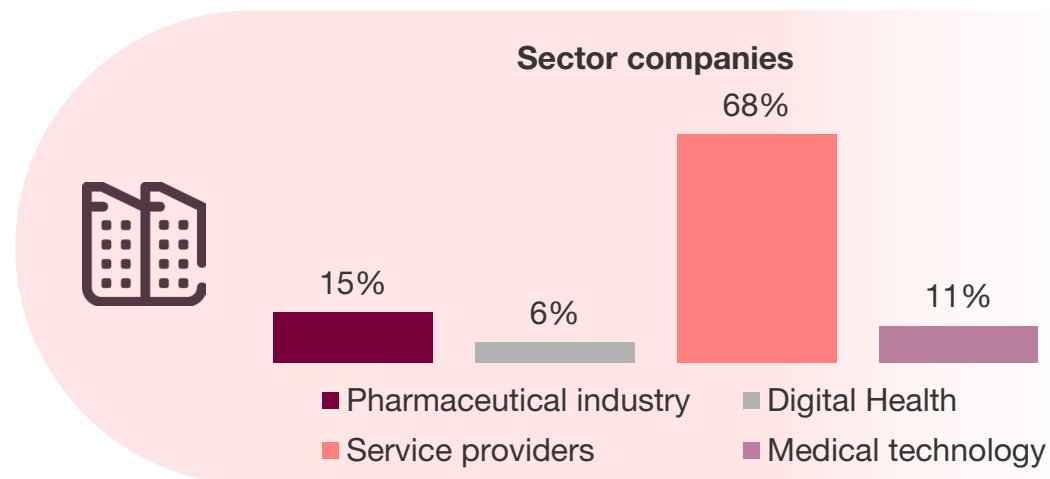


43,644 employees
(70%)

Note: Database extraction is carried out based on the following CCAE economic activity codes: 86 - Health activities, 87 - Care in residential establishments, 88 - Social service activities without accommodation, 2110 - Manufacture of basic pharmaceutical products, 2120 - Manufacture of pharmaceutical specialties, 2660 - Manufacture of radiation, electro-medical and electro-therapeutic equipment, 3250 - Manufacture of medical and dental instruments and supplies, 4646 - Wholesale of products - Computer programming activities

Source: ACCIÓ based on existing databases, information from interviews, related CCAE economic activity codes according to the information available from SABI (companies with a turnover of more than 1 million euros) and secondary information sources.

Quantification of the different areas of the sector and characterization of the different segments



Source: ACCIÓ, based on IDOM

Companies included in the mental health and personal autonomy sectors

MANUFACTURERS

Pharmaceutical industry



Medical technology



Digital Health



SERVICES

Service providers



Note: Partial non-exhaustive profile of companies with high turnover in each segment

Source: ACCIÓ

Startups related to the field of mental health and personal autonomy

MANUFACTURERS

Pharmaceutical and complementary industry

accuretherapeutics

Medical technology



Digital Health



SERVICES

Service providers



Note: Partial non-exhaustive profile

Source: ACCIÓ from different sources such as databases (Barcelona & Catalonia Startup Hub), news, fairs and secondary information sources.

Prominent startups in the sector related to the field of mental health and personal autonomy (I)



Koa Health offers solutions to companies, healthcare professionals and insurers and personalized support in mental health through a digital platform. It uses a scaled working model: a first option without medical supervision, another option with the help of a coach, and, finally, with medical supervision.



Amelia is a tool for mental health specialists that develops virtual reality glasses, with more than 110 virtual spaces, that help overcome phobias or fears. It helps practitioners treating a variety of disorders to adapt and apply multiple techniques.



Evoterapia is a network of professional physiotherapists, psychologists and coaches, among others, who use therapies to help combat mental illnesses. The areas they address are: depression, improving self-esteem, anxiety, blockages, grief processes, addictions.



They are working to find new drugs that promote neuroprotection and neurorepair that can correct neuronal problems that are affected by dysfunction, thereby preventing degeneration and death. They currently treat four disease areas: optic neuritis, multiple sclerosis, Parkinson's disease and epilepsy.



Source: ACCIÓ

Prominent startups in the sector related to the fields of mental health and personal autonomy (II)

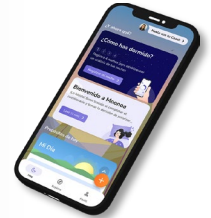
CA L'ABRIL

A care cooperative that offers a range of home care services in the city of Barcelona. Several female entrepreneurs in the care sector came together to create this project with the aim of enhancing the independence and dignity of people in need of care. They receive the support of Barcelona Activa as an incubator and currently 12 professionals are working there.



Moonea

Moonea offers an app that helps you get to sleep and get more and better quality rest. It enables the performance of a sleep study and takes a behavioral approach to create a personalized routine through psychology, relaxation, nutrition, and exercises, among others. In addition, it gives access to psychologists and more than 1,000 different items of content in order to improve its users' quality of life.



timeisbrain

Time Is Brain (TIB) is a medical device that automatically records and analyzes neural electrical activity. Thus, both the side effects and the consequences of a stroke can be obtained in a more controlled manner. In addition, it can also be used for early detection of an attack.



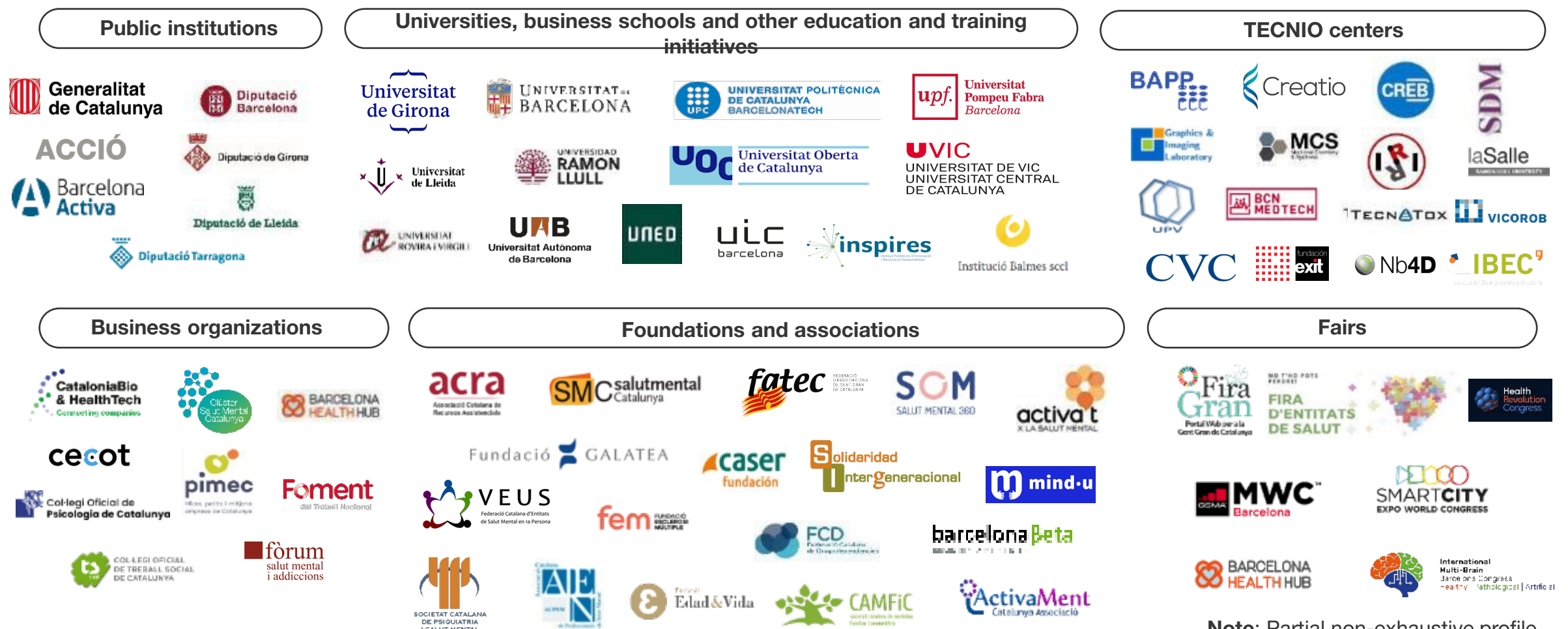
Dana

Dana is an app to improve mental health and comprehensive well-being throughout the pregnancy process. Dana's goal is to improve the early detection and follow-up of the physical and mental effects that women may experience throughout their pregnancy. They currently have partnership agreements with Rovira i Virgili University and Vall d'Hebron Hospital.



Source: ACCIÓ

Map of the ecosystem of mental health and personal autonomy in Catalonia



Note: Partial non-exhaustive profile

Source: ACCIÓ

Foreign investments in the fields of mental health and personal autonomy

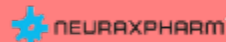
Minoryx Therapeutics



This biotechnology company works in the development of treatments for rare disorders of the central nervous system (CNS). The company has recently raised 51 million euros in funding.

Investment: €51 M (2022)

Neuraxpharm



This pharmaceutical company focuses its activity on the treatment of psychiatric and neurological disorders. It has invested €11 million in expanding the production capacity of its plants in Catalonia.

Investment: €11 M (2021)

Admit Therapeutics



Startup that develops a test for the early detection of Alzheimer's based on a blood analysis. The raising of €4.2 million will be used to complete the clinical proof of concept.

Investment: €4.2 M
(2020)

Koa Health



Digital provider offering a mental health improvement app for workers employed by organizations. They will invest the €30 million raised in product improvements and foreign trade.

Investment: €30 M (2021)

Amelia Virtual Care

Healthtech based in Barcelona that is developing a virtual reality platform that allows the treatment of different types of mental illnesses. It has raised 7 million to boost its growth.

Investment: €7 M
(2022)

Moonoa



Startup that offers a digital solution against insomnia by monitoring sleep quality and quantity. They have closed a funding round of €1.54 million.

Investment: €1.5 M (2021)

Source: ACCIÓ from indirect information such as news from specialized websites

3. Trends, business opportunities and challenges

Trends in the fields of mental health and personal autonomy (I)

Social trends

Diversity and inclusion



Inclusive activities with different groups in society are being promoted, for example, with programs that encourage intergenerational relationships. In this respect, progress is also being made in eradicating the stigma associated with people with mental illness, although there is still much room for improvement.

Home care preference



Recently, it has been observed that elderly people try to put off entering a retirement home, which they usually resort to only if it is the last available option. On the other hand, groups with support needs prioritize home care services.

Increased solitude



It is very common for older people to live unaccompanied, and many also feel lonely. This unwanted solitude stems in part from new family models and globalization, which has meant that in many cases the direct relatives of older people work far away.

Wellness



This concept is related to a state of satisfaction and happiness, which is defined as physical, mental and emotional well-being through playing sports, good nutrition, work-life balance and meditation, among other practices.

Addiction to technology



Technology makes many everyday tasks easier, but many people end up abusing the use of devices such as mobile phones or computers. Today, many young people are addicted to social networks or series, and in many cases they have panic attacks when they cannot enjoy these platforms.

Importance of mental health



Many efforts are currently being made to raise awareness among the general population about the importance of mental health as a vital part of our well-being. More and more companies are also aware of this, and offer techniques and other tools to improve their workers' mental health.

Trends in the fields of mental health and personal autonomy (II)

Technological trends

Telemedicine and telecare



One of the limitations that affects a person the most when they get older is mobility. Remote medical services are increasingly used among the elderly, mainly for telediagnosics, teleconsultations, etc.

Digital technologies at home



It enables the automated and smart control of most household operations and management, improving safety, accessibility, comfort and energy savings, among others.

Functional and personalized nutrition



Nutrition is one of the essential components for healthy aging and preventing various diseases that can affect a person's autonomy.

Robotics



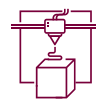
There are robotic solutions with human-like shapes, which simulate the social care assistance provided by caregivers for those with different degrees of dependency.

Immersive technologies



It is being applied in some types of treatments in which an image is used to convey scenes or environments to people that bring them tranquility, memories or other stimuli that promote their well-being.

3D printing



It can help address the needs of people with a lack of personal autonomy, such as by building low-cost prostheses or assistance devices, and "printing" customized food that is easy to digest.

Wearables



These devices are ideal for monitoring the physical or mental state of people with addiction, especially for the elderly who suffer from diseases such as diabetes, Alzheimer's, Parkinson's or depression.

Source: *Mental Health Europe*

Trends in the fields of mental health and personal autonomy (III)

Market trends

Design for all



This focuses on the design of products and environments that can be used by all people, regardless of age, and do not need specific adaptation.

New housing models



Collaborative housing alternative often with many common areas and community services that is increasingly attractive to the elderly, as it provides them with companionship, care and the possibility of reducing many expenses.

Person-centered care



It is a philosophy of caring for people based on the principles of personal empowerment, dignity and autonomy.

Integration of services



A large proportion of vulnerable people also experience situations of dependency and chronic health problems, which means that health and social services systems must work more closely together in order to offer integrated services.

Shared value



Shared value is a concept that is related to a paradigm shift focused on the humanization of capitalism. These are operational practices of the company that improve competitiveness while improving the socio-economic conditions of the environment. An example of these practices are programs to improve worker health.

Complementary therapies



In recent years there has been growth in the use of alternative medicine techniques and therapies such as acupuncture or homeopathy. There is also a boom in physical activities such as tai chi or yoga.

Source: ACCIÓ

Trends in the fields of mental health and personal autonomy (IV)

Public policy trends

- **Caring cities: the aim is to transform** cities so that they become sustainable, healthy and friendly, providing neighborhoods with a network of local spaces and facilities that make life easier for people with care needs.
- **Boost to telecare:** remote medical services are offered by public institutions and are increasingly used among the elderly, mainly for telediagnosics, teleconsultations, remote assistance and monitoring.
- **Initiatives for cognitive stimulation: town and city** councils promote cognitive stimulation workshops and activities to improve the abilities of older people and, consequently, improve their quality of life.
- **Care for caregivers:** there are several local initiatives with the aim of offering specialized training in care and social care, self-learning guides, technological support devices, etc. to non-professional caregivers (e.g. family members).
- **Awareness of healthy lifestyle habits:** government agencies promote following a balanced diet, doing regular physical activity and refraining from smoking, since this contributes to reducing the risk of suffering from non-communicable diseases and improving physical and mental faculties.
- **Amateur sport:** some local councils organize introductory courses, regular classes, awareness talks, etc. about various sports and activities such as yoga, Nordic walking, pilates, maintenance gymnastics, cardio, among others.
- **Coping with loneliness:** programs are being fostered to combat loneliness (unwanted solitude) among older people, as it can have serious negative consequences for physical, psychological and social health.
- **Promotion of intergenerational projects:** projects have emerged that improve relationships between different generations and strengthen the bonds between the elderly and the young.
- **Shared value projects:** social initiatives related to mental health are increasing, such as work inclusion projects for people with functional diversity.








Source: ACCIÓ

Challenges facing the mental health sector and personal autonomy

Business challenges

-  Increase the **funding capacity** of the care sector in order to improve the quality of the service in retirement and nursing homes.
-  **Cooperate between the health and social services departments** to provide a comprehensive service across the care spectrum.
-  **Streamline regulatory processes** and official approval of health products.
-  **Integrate digital technologies** to make the processes and quality of health and social services more efficient.
-  **Dignify the tasks** of professionals in the care sector and fight against the clandestine economy.
-  **Improve the appeal** of the care sector and, above all, the **working conditions** of professionals in order to attract talent.
-  **Transform business models** based on B2B (public health and social system) towards B2C (elderly and dependent people).

Social challenges

-  **Strive to reduce stigma** associated with mental illness as well as ageism.
-  Make people and companies aware of the importance of **prevention in the field of mental and physical health**.
-  **Combat unwanted solitude** and sedentary lifestyles, especially among older people.
-  **Promote empowerment** of the most vulnerable groups (reintegration into the workforce, active participation, etc.).
-  **Make it easier** for senior citizens to **live in their own homes** and increase their personal autonomy.
-  Reinforce the **active role of society** in improving people's health and well-being.
-  Make society aware of the need to **invest resources in physical and mental health**, at all stages of life.

Note: Challenges identified from the interviews conducted

Source: ACCIÓ

Business opportunities for Catalan companies (I)

Food industry

- Functional and personalized nutrition, with the aim of improving people's health and reducing the risk of contracting diseases.
- Foods that are easy to digest for those with diseases such as dysphagia.
- Food services for the elderly, taking into account the particularities of this group (e.g. home delivery).



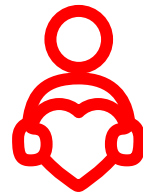
Pharmaceutical industry

- Research and development of medicines aimed at people with mental health illnesses.
- Reduction of the side effects of medications aimed at the treatment of mental disorders.
- Improving the effectiveness of medications, with the aim of reducing the frequency of consumption.
- Implementation of neuropsychological tests and specific biomarkers for the early detection of diseases



Person-centered support and care

- Real application of person-centered care, a philosophy whose principles are the empowerment, dignity and autonomy of the person.
- Technological solutions to complement the caregiver's work (collaborative robotics, sensors, applications for medication control, etc.)
- Systems that facilitate the participation and communication of older people with society in order to reduce loneliness.



Mobility

- Accessibility for people with reduced mobility in both high-occupancy vehicles and private vehicles.
- On-demand services for the transport of people with reduced mobility.
- Shared transport systems for rural communities.
- Adaptation of personal mobility vehicles (PMVs) for people with disabilities.
- Solutions to improve the automation of the autonomous car.



Note: Analysis based on secondary information and interview inputs.

Source: ACCIÓ

Business opportunities for companies based in Catalonia (II)

Habitat and smart cities

- Design of homes, buildings and communities that are accessible and adapted to the needs of people with a lack of personal autonomy.
- Home automation systems adapted to any personal diversity to improve their degree of autonomy.
- Support products (such as technical aids) with inclusive designs to facilitate day-to-day tasks.



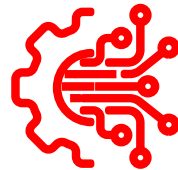
Sports industry

- Specific services and programs to encourage physical activity among the most vulnerable people.
- Exclusive rehabilitation centers and gyms for people with reduced mobility, promoting the practice of low-impact sports such as yoga, aerobics, swimming, among others.
- Design of sports programs for workers with the aim of improving mental and physical health.



Information and communication technologies (ICT)

- Computer applications to improve the prevention, diagnosis and treatment of mental health diseases for different population groups.
- Wearable technological devices to facilitate the autonomy and quality of life of particularly vulnerable people.
- IT solutions for improving the accessibility of any person (design for all)



Education and training

- Courses on technology with the aim of reducing the digital gap for seniors.
- Courses to cognitively stimulate people with mental health problems.
- Training programs for schools and universities with the aim of raising awareness about the risk of addictions and mental health problems.



Note: Analysis based on secondary information and interview inputs

Source: ACCIÓ

Success stories in the fields of mental health and personal autonomy

Based on the information obtained and the interviews carried out, a series of successful cases have been detected throughout Catalonia:

Medical technology

BATEC Mobility



Makes **hand-operated bikes** attachable to **wheelchairs**. They have electric or hybrid models.

Senior Domo

They have created a **smart watch** that predicts **risk situations** and **sends alerts** to relatives.

Digital health

Laia Health

They have developed a **computer application** focused on **mental health** for the entire process of **pregnancy**.

MJN Neuro



They develop **health products** that warn of a **high risk of epileptic seizures** to the affected person and their emergency contacts.

Service providers

ITA Mental Health



Mental health specialists. They have a wide **network of centers** devoted to the **comprehensive treatment** of mental health problems.

L'Onada Residential Services

It is a leading company in care provision for people with **dependency**, with centers all over Catalonia.


Thank you

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Check out the snapshot here:

<https://www.accio.gencat.cat/ca/serveis/banc-coneixement/cercador/BancConeixement/eic-salut-mental>

