

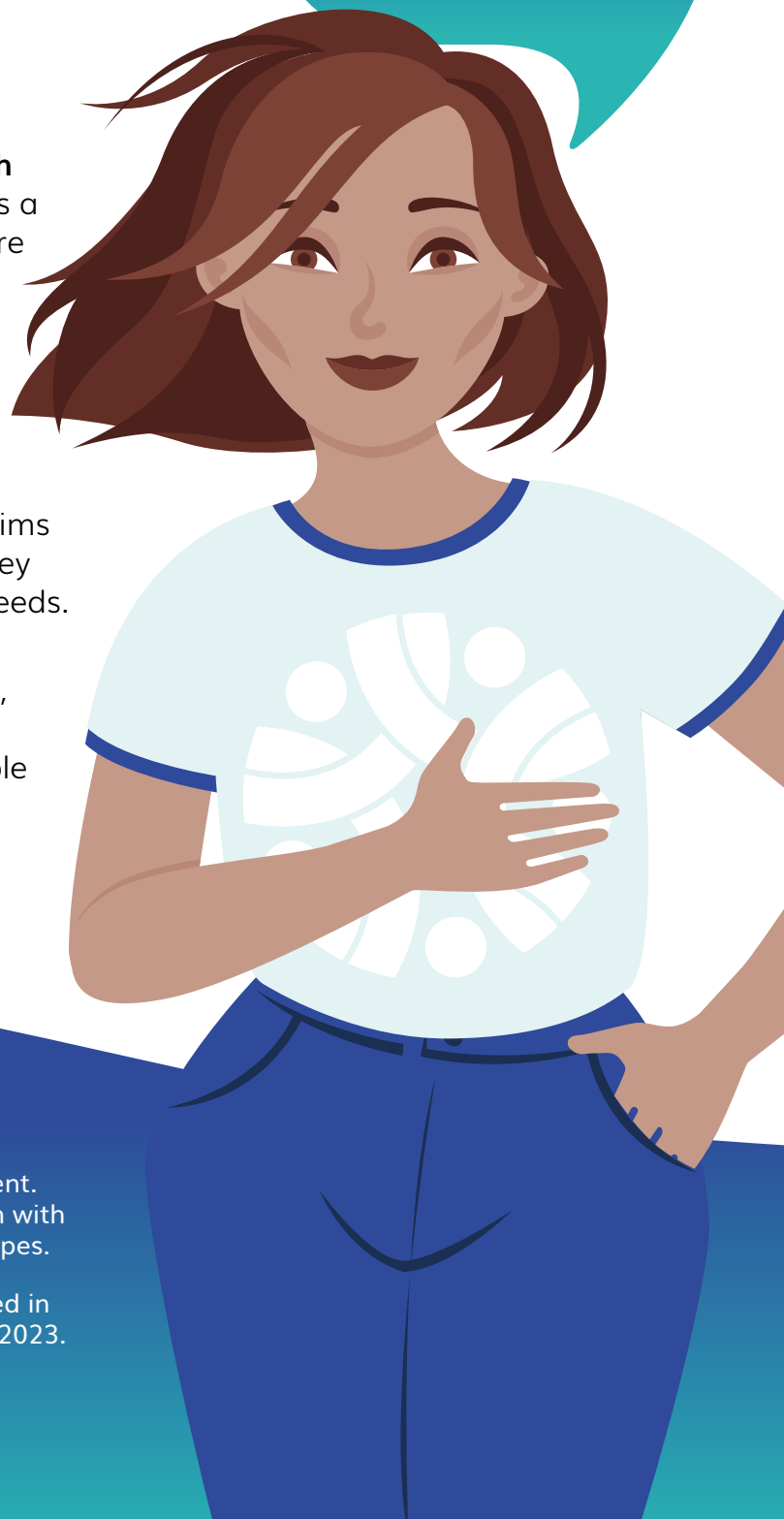
Impact of Multiple Sclerosis Symptoms (IMSS) in Croatia

Despite progress in multiple sclerosis (MS) care, healthcare systems across Europe still lack a **coordinated and prioritised approach** to managing MS symptoms effectively. MS is a lifelong neurological condition affecting more than 1.2 million people in Europe, yet many continue to face gaps in care and support.

The European Multiple Sclerosis Platform (EMSP) is spearheading research to understand how people with MS experience and manage their symptoms across the continent. By **identifying disparities** EMSP aims to promote stronger collaboration among key stakeholders to effectively address unmet needs.

The Impact of Multiple Sclerosis Symptoms (IMSS) initiative seeks to drive policy change, improve care pathways, and enhance rehabilitation outcomes, ensuring that people with MS receive the **comprehensive support** they deserve.

Mia's story is just one example of how MS reshapes lives — and why understanding these experiences is crucial for improving care.



EMSP and 24 national MS societies across 22 European countries collected real-life evidence on MS symptoms and management. Behind these findings are real people, each with their own challenges, uncertainties, and hopes.



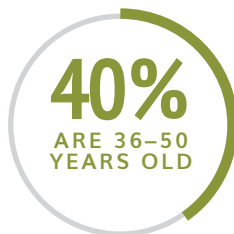
In Croatia, 224¹ people with MS participated in the IMSS survey from May 5 to August 31, 2023.

A Life Changed by MS

Mia had always been full of energy—a mother, a photographer and a passionate hiker in her free time. But at 30, her life took an unexpected turn. She started noticing strange sensations in her hands, followed by bouts of overwhelming fatigue. Over time, these symptoms grew harder to ignore. Tasks she once did effortlessly became a struggle. Her doctor ran tests, but the results were inconclusive. For four long years, Mia lived with uncertainty, her daily life becoming a patchwork of pain, confusion, and questions without answers.



Participant demographics



AGE



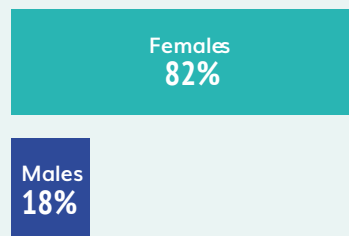
People between **18-35** reported the least balance problems, pain, sleep disturbances, muscle weakness, spasticity, bladder and bowel problems, sexual problems, mobility impairment and tremors.

Individuals aged **36-50** experienced the most sleep disturbances and the least tremors.

Between **51-65**, the most dizziness, bladder and bowel problems.

Over 65, most of the problems reported between 51 and 65 continue.

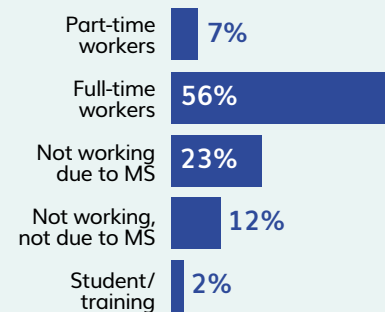
GENDER



Females reported fewer speech difficulties but **more cognitive impairment** compared to males.

Significant differences between genders were not observed for most symptoms.

WORKING STATUS



Full-time workers significantly reported the least presence of almost all symptoms.

The sample size of all other groups was too small to draw any conclusions.

Understanding MS Across Europe

The IMSS aims at uncovering the truths behind the symptoms, struggles, and stories of MS. How do people across Europe experience the condition? How do healthcare systems respond to their needs? And most importantly, where are they falling short?

For Mia, these questions resonate deeply. Her diagnosis eventually came at age 34, but the journey didn't end there. Her symptoms—fatigue, sensory problems, mood changes, and balance problems—continued to affect her daily life. Navigating the healthcare system felt like an uphill battle, and she often wondered if there was more that could be done to help people like her.

Mia's experience reflects a broader reality revealed through the IMSS survey. Thousands of respondents shared their stories, offering insight into the challenges of living with MS: delays in diagnosis, inconsistent care pathways, and limited support for symptom management. Despite these challenges, EMSP saw an opportunity to drive change. By amplifying these voices, they could push for policies that prioritize comprehensive, equitable care for people like Mia across the continent.

Clinical situation

DIAGNOSIS AND SYMPTOM ONSET

57% diagnosed between 18–35 yrs

10.3 YEARS average disease duration

2 in 5 have at least 1 additional illnesses

Delay from symptom onset to diagnosis



29.5 symptom onset age

AVERAGE DELAY OF 4 YEARS

33.7 average diagnosis age

TYPES OF MS

72% RRMS, Relapsing Remitting MS

10% PPMS, Primary Progressive MS

10% SPMS, Secondary Progressive MS

8% Unsure of their MS type

DISABILITY LEVELS

22% of the respondents had mild disability while 42% had moderate disability and 11% had severe disability. Disability was most common in RRMS (46%), while severe disability was highest in SPMS (58%)².

QUALITY OF LIFE

The majority of respondents had no or slight problems, while 14% were experiencing moderate or severe problems affecting their quality of life. Quality of life declined most significantly in SPMS (77%) and PPMS (32%)³.

USE OF DMDs

82% of respondents have used **Disease Modifying Drugs** (DMDs), with 64% currently using them. 38% reported less than a 1-year delay to start DMDs, while 16% experienced delays of 6 years or more. Among non-users, the main reasons were:

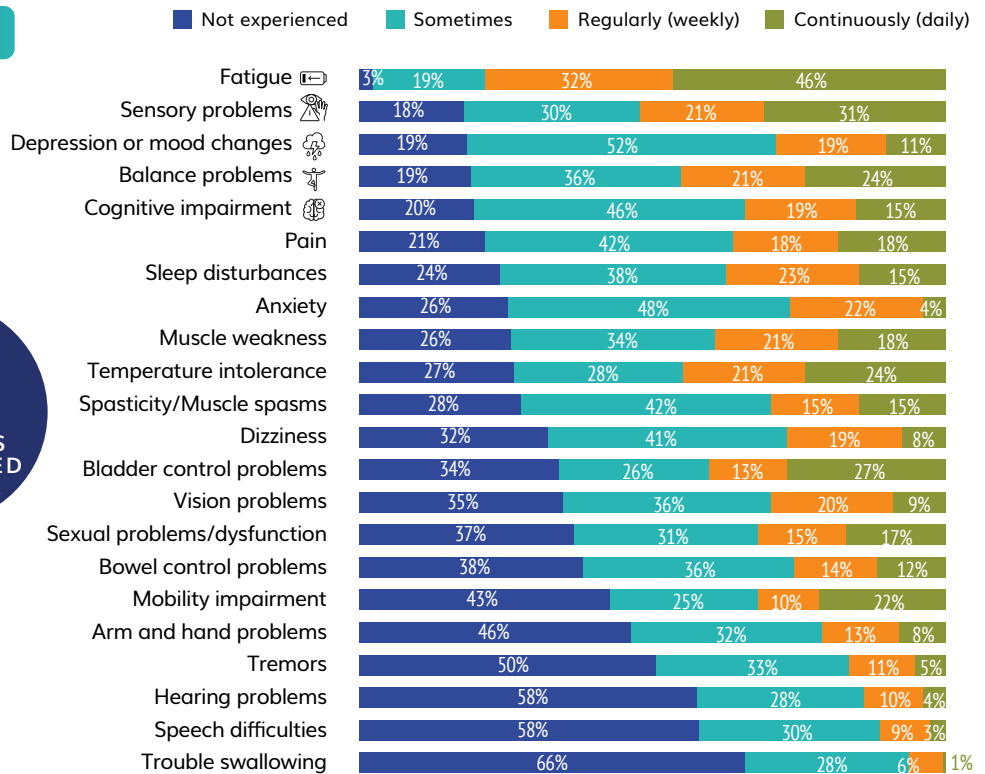
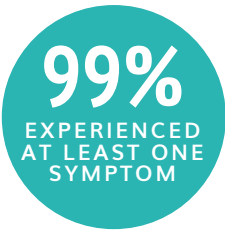
- 38% concerns about use
- 14% never being offered
- 9% physicians advising against them
- 43% mentioned 'other reasons', prompting further investigation.

ON AVERAGE 3 YEARS DELAY BETWEEN DIAGNOSIS AND DMD START

Symptoms

PRESENCE AND PREVALENCE

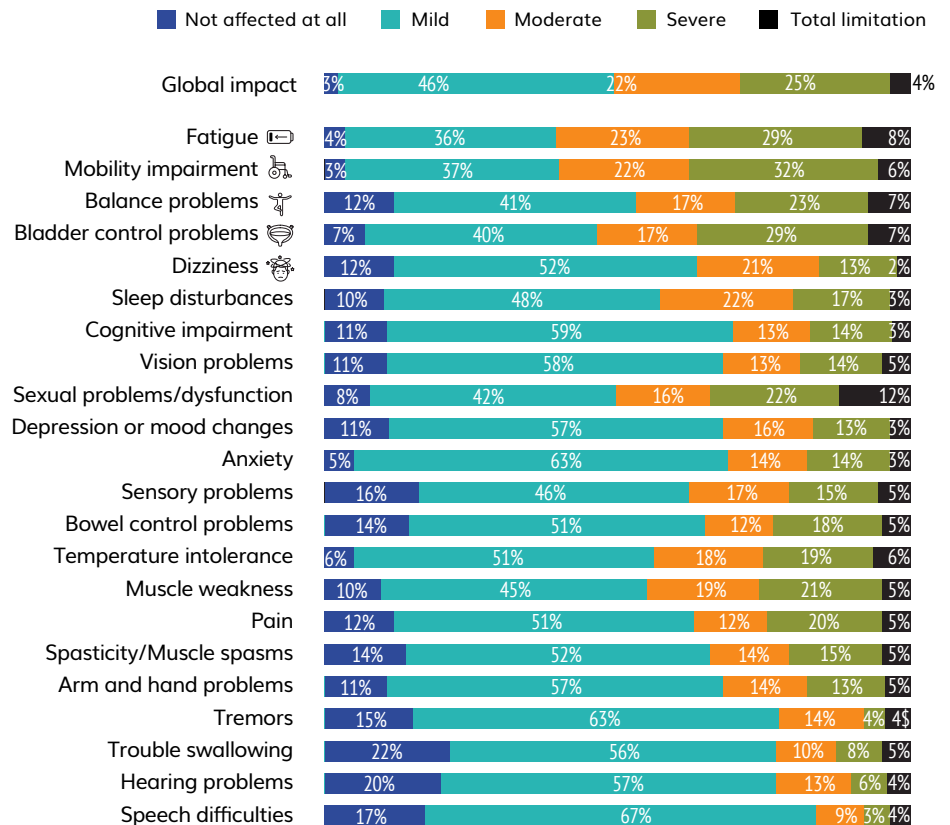
The symptoms reported the most were **fatigue, sensory problems, depression/mood changes, balance problems** and **cognitive impairment**.



SEVERITY AND IMPACT

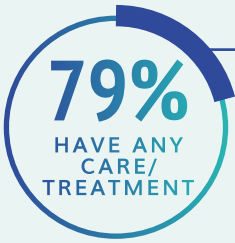
The symptoms that were affecting the daily lives of people with MS were **fatigue, mobility impairment, anxiety, heat/cold sensitivity** and **bladder control problems**⁴.

The top 3 most debilitating symptoms were **fatigue, mobility impairment**, and **balance problems**⁵.



Treatment and care

CARE FOR SYMPTOMS



21% don't use any care /treatment. The top reasons for not using a specific treatment were having no need, they cannot afford this treatment or treatment was not offered to them.



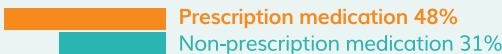
People with MS reported using 6.1 treatments or care on average for their symptoms.

The most used treatments were*: **prescription medication, personal life modifications, dietary supplements, physical therapy, and support from friends and family.**

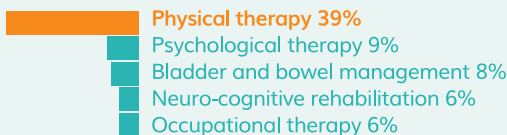
Lifestyle changes



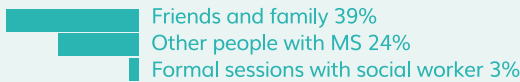
Medication for symptom management



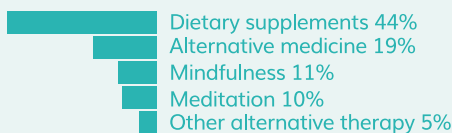
Therapy/treatments



Social support



Complementary and alternative therapies



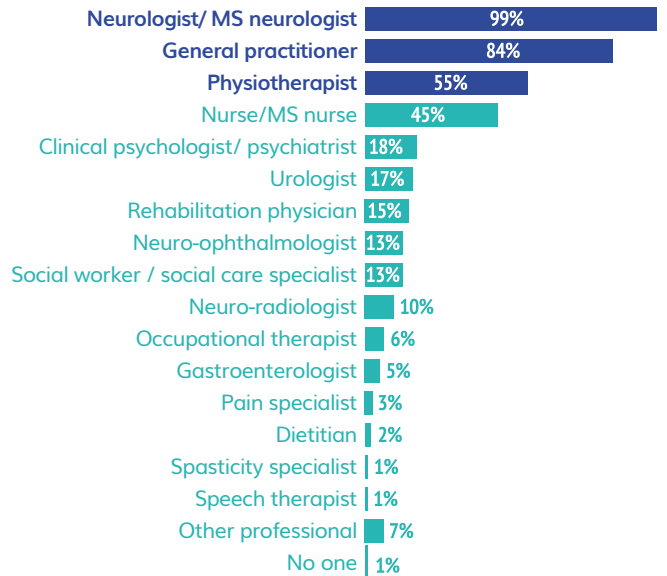
Other



INVOLVEMENT OF PROFESSIONALS



People with MS had 3.9 medical professionals on average taking care of their MS. 57% of people with MS reported that their healthcare professionals are coordinating together. The most involved professionals were **neurologist, general practitioner and physiotherapist***



CAREGIVER PRESENCE AND ASSISTANCE



- 76% have no need for assistance
- 14% do not have caregivers but need assistance
- 10% have caregivers

Of those caregivers, **86%** were a family, partner, or friend. **41%** were paid professionals*.



The caregivers supported people with MS for 15.6 hours per week on average. **85%** of respondents mentioned that the carer was of **great or good** help to them.

People with SPMS frequently had (42%) or needed caregivers (33%), compared to 88% of people with RRMS who reported not needing a caregiver.

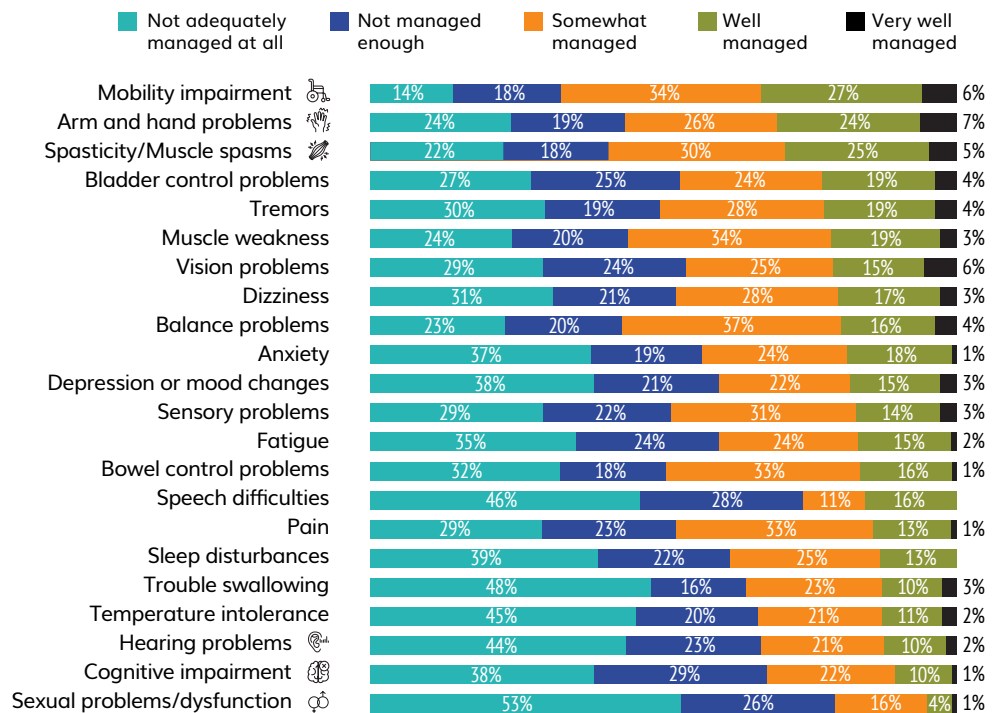


Satisfaction with management of symptoms

The most well managed symptoms were **mobility impairment, arm and hand problems, and spasticity/muscle spasms.**

The least well managed symptoms were **sexual problems/dysfunction, cognitive impairment, and hearing problems.**

1 in 2
NOT SATISFIED
WITH THEIR
CARE



The promise of change

As the IMSS initiative brings together people with MS, researchers, policymakers, and healthcare providers, we hope to have a future where no one has to face their symptoms alone. A future where MS care isn't just about managing symptoms but **empowering people to lead fulfilling lives.**

The story of MS isn't just about the condition; it's about the people living with it. And for Mia, it's a story that continues, now with **the promise of a brighter tomorrow.**



Note: Percentages are rounded for simplicity and may not sum to 100% or match exactly.

*Participants were allowed to give more than one answer (multiple choice), hence the total can be more than 100%.

References: ¹Among respondents, 55% were MS society members, 19% were linked but not members, and 26% had no society affiliation. ²Measured by the PDDS: Patient-Determined Disease Steps, provided for use by the NARCOMS Registry: www.narcoms.org/pdds. NARCOMS is supported in part by the Consortium of Multiple Sclerosis Centres (CMSC) and the CMSC Foundation. ³Measured by EuroQOL Research Foundation: EQ-5D-5L. ⁴The tool used to measure the severity of symptoms is SymptoMScreen: <https://www.symptomscreen.org>, categorised into 5 groups: Not affected at all (0); Mild (1 and 2), Moderate (3), Severe (4 and 5), Total limitation (6). ⁵The 'Severity and Impact' chart is organized from the most to the least debilitating symptoms.

Acknowledgement: EMSP thanks people with MS and their caregivers across Europe for participating in this IMSS survey experience. EMSP thanks the Scientific Working Group which included MS experts and the national MS societies for their support. EMSP thanks the young people with MS who supported the development of the survey part of the Young People's Network, the MS International Federation, and GfK Spain (expert in Healthcare Market Research).

Funding: This project has been financially supported by Almiral, Biogen, Bristol Myers Squibb, Coloplast, Merck, Novartis, Roche, and Sanofi.