


# Reducing the socioeconomic burden for Multiple Sclerosis patients in Europe: assessment of the impact of earlier access to disease-modifying treatments with more convenient administration frequency

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## Introduction

- Multiple Sclerosis (MS) is a chronic autoimmune disease of the central nervous system (CNS) that affects more than 1.2 million people in Europe.<sup>1</sup>
- It is primarily diagnosed in individuals aged 20 to 40 years, resulting in significant societal and economic burden.<sup>2</sup> The impact extends into various areas of a patient's life, including personal well-being such as mental health, family life and planning, employment and the lives of caregivers.
- Objectives:** This study<sup>3</sup> draws from patients evidence to set out the broader potential socioeconomic burden reduction of MS and policy recommendations for earlier access to highly efficacious disease-modifying treatments (DMTs) with more convenient administration frequency (MCAF)<sup>a</sup> for MS in nine countries.

Geographic scope (n=9): 

## Methods

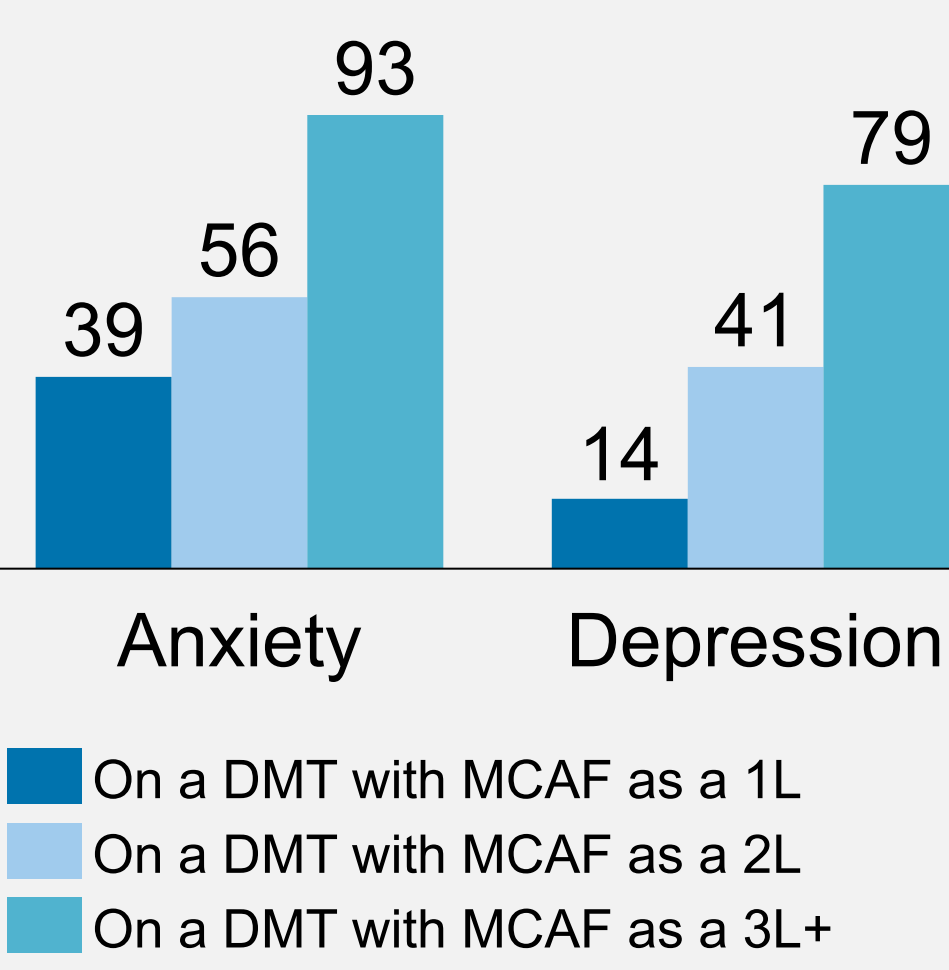
- 01
- Conduct a **structured literature review and develop hypotheses** of the impact of treatment timing and treatments with different administration frequency on potential socioeconomic cost savings
- 02
- Collect data through **a survey of 154 people living with MS (PLwMS)** from September to November 2023 and **assess burden reduction** from earlier treatment with a DMT with MCAF
- 03
- Consolidate lessons from the research and quantitative and qualitative evidence and **set out policy recommendations** in a **published report**

## Results

### Personal wellbeing and mental health

- Depression and/or anxiety significantly **impacts ability to work and carry out daily activities**
- Less impact** reported by PLwMS on DMT with MCAF vs other treatment
- Earlier access can reduce impact of anxiety and depression**, with reported improved ability to carry out daily activities (79%) and improved participation in employment (83%)
- PLwMS suggest the impact is partially **driven by the easier treatment administration and schedule** and reduced interference with daily lives

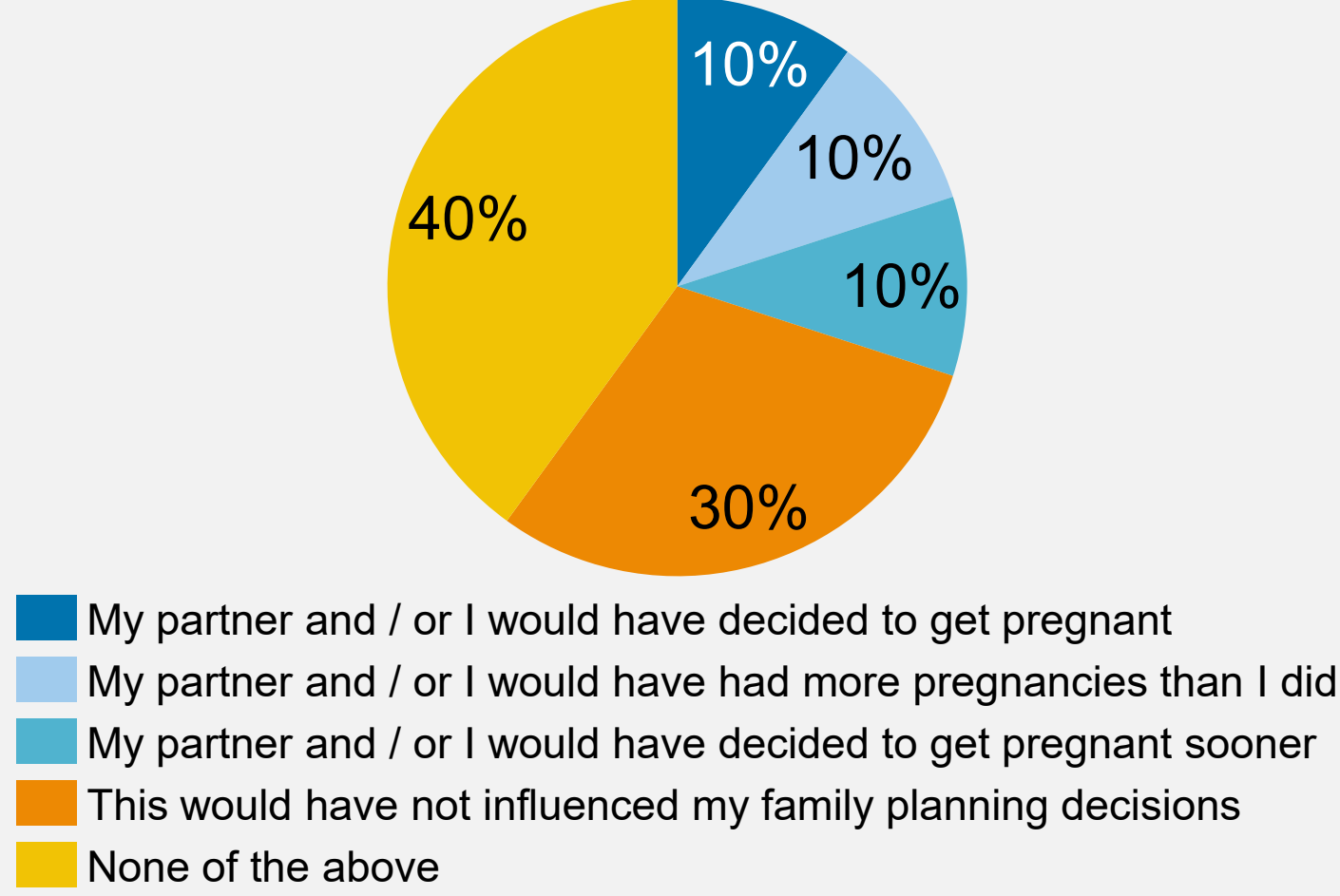
Impact of depression and/or anxiety on patients' lives (%)



### Family life

- The impact of MS on family life and relationship status** (divorce, separation) is lower for PLwMS with earlier access to DMTs with MCAF
- Earlier access to DMTs with MCAF is particularly beneficial **for family planning decision-making** (almost a third of respondents would have decided to get pregnant, had more pregnancies, or decided to get pregnant sooner)

The impact of earlier access to highly efficacious DMTs with MCAF on family planning (%)



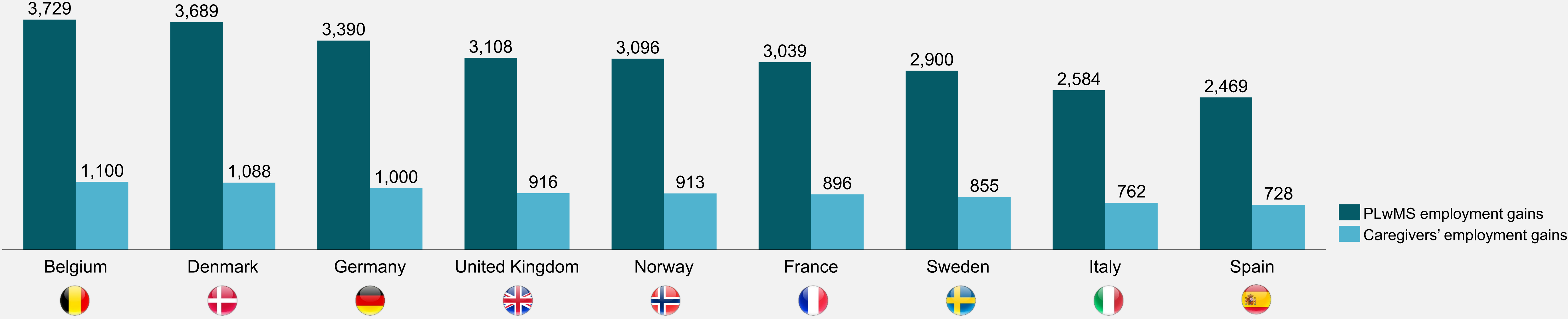
### Employment

By providing earlier access to highly efficacious DMT with MCAF (1L instead 2L, or 2L instead of 3L+), **employment gains** are estimated to be **around €3,000 per patient per year or a total of €155.3 million** in potential annual socioeconomic gains from employment across the relevant MS population in the countries in scope.

### Caregiver burden

By providing earlier access to highly efficacious DMTs with MCAF (1L instead 2L, or 2L instead of 3L+), **the need for caregiver support is reduced** and leads to **gains of around €900 per patient per year or a total of €45.8 million** in potential annual socioeconomic gains from caregivers' employment in the countries in scope.

Estimates of the socioeconomic gains from PLwMS' and caregivers' employment per patient per year (in €)



## Conclusions

The **proposed policy solutions** are part of a package which includes:

- Core recommendations** directly linked to the findings in the analysis that support mechanisms that would allow for the broader value recognition of earlier access to highly efficacious DMTs with MCAF, and
- Complementary recommendations** which would provide further support for the areas of impact and lead to further burden reduction

1 The incorporation of PLwMS voice in MS decision-making

2 Broader value elements in the assessment of MS treatments, particularly related to societal and economic gains

3 Clinical guidelines and programmes to reflect new evidence on treatment benefits (e.g. family planning, mental health support)

4 Targeted MS policies focused on chronic and neurological disease management, whilst integrating mental support

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6 Caregivers dedicated support through training, counselling, psychological and financial support

### Disclosures

Tim Wilsdon, Artes Haderi and Elaine Damato are employees of Charles River Associates, which was hired by Merck Healthcare KGaA, to provide editorial/writing support for this study. Charles River Associates is an economic consultancy company with a long-established reputation for independent analysis. The views expressed herein are the views and opinions of the authors and do not reflect or represent the views of Charles River Associates or any of the organizations with which the authors are affiliated. Isabel Klinnert is the Global Government and Public Affairs, Business Partner to Neurology and Immunology Franchise at Merck KGaA, Darmstadt, Germany.

### References

- The European Multiple Sclerosis Platform (EMSP) (2021). "About MS".
- European Brain Council (EBC) & The Health Policy Partnership (2019). "Rethinking MS in Europe: Prioritising integrated services for people with multiple sclerosis".
- Tim Wilsdon et al. (2024). "Assessment of the impact of earlier access to disease-modifying treatments with more convenient administration frequency in reducing the socioeconomic burden for multiple sclerosis patients in Europe".

### Notes

<sup>a</sup>For the purpose of this study DMTs with MCAF are defined as treatments provided to patients in intervals of at least 6 months between each treatment for a specific number of years and doses or on an ongoing basis.

[Link to report](#)

