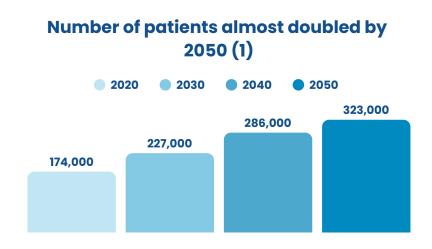


# Addressing the Impact of Alzheimer's Disease on Care Capacity in the Netherlands: Implications for Health Technology Assessment

Simon van der Schans<sup>1,2</sup>, Meine Zijlstra<sup>1</sup>, Cornelis Boersma<sup>1,2,3</sup> <sup>1</sup>Health-Ecore B.V., Zeist, The Netherlands; <sup>2</sup>Unit of Global Health, Department of Health Sciences, University Medical Center Groningen (UMCG), University of Groningen, The Netherlands. <sup>3</sup>Department of Management Sciences, Open University, Heerlen, The Netherlands.

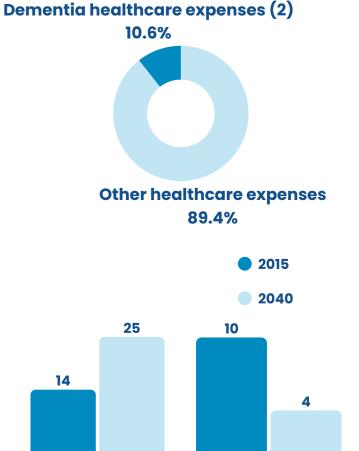
### **Introduction**

Alzheimer's Disease (AD) is a progressive, neurodegenerative disease. With increasing disease severity, patients become more reliant on caregivers. The rapidly growing patient population has an increasingly devastating impact on patients, the healthcare sector and society.



The formal and informal care capacity in the Netherlands is under extreme pressure. This is often overlooked evaluating healthcare when innovations.

In the Netherlands, 800,000 people are caring for a loved one with dementia, often accompanied by serious mental and physical strain of informal carers (3).



% of working

population

employed in

healthcare (4)

With the introduction of Amyloid Targeting Therapies (ATTs), new disease-modifying treatment option becomes available for the treatment of AD. Including broader societal elements, like formal and informal care capacity, in HTA is essential for capturing the full potential of such new innovations.

This study assesses the broader societal impact of AD and evaluates how Amyloid-Targeting Therapies (ATTs) may alleviate pressure on formal and informal care in the Netherlands.

### **Methods**

A model-based analysis compared two patient groups, one receiving best supportive care (BSC) and the other treated with ATT using a Markov model. Both treatment arms included 9,500 patients assumed to be eligible for ATT treatment (5,6), with 70% starting in the MCI stage and 30% in mild AD (7). Data on disease progression, care hours, and patient characteristics were used to estimate care needs over time. Sensitivity analyses were used to assess the model's uncertainty and robustness.

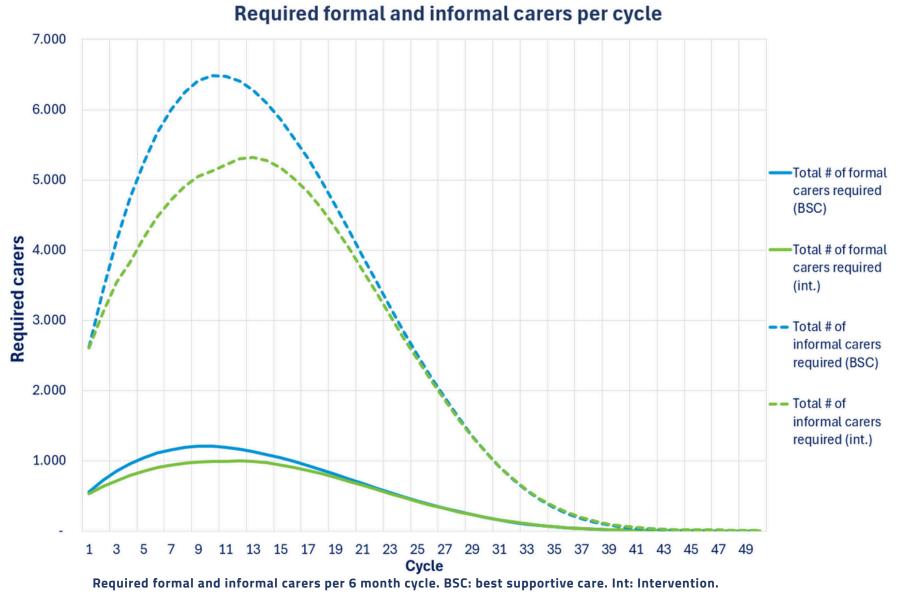
## Results

**Number of informal** 

**carers (50-65 yrs)** 

per elderly (85+ yrs)

(4)



Patients treated with ATTs spend more time in less severe health states and less time in advanced states, resulting in less formal and informal care requirement. sensitivity and scenario analysis (not shown) showed that the model

outcomes were robust.		•	
		formal care:	Informal care:
	Number of required carers	208 (18%)	1163 (18%)



Time until max. required carers is needed extended with:

decreased by:

1.5 years 1.5 years



Number of carer years decreased by:

1400 years 8439 years

# **Conclusion**

The analysis of formal and informal care capacity for Dutch Alzheimer's patients eligible for treatment with ATTs shows two main effects: ATTs reduce the formal and informal care requirements and extend the time until the maximum requirement is reached.

The reduced need for formal and informal carers substantially benefits the health system, as the current prognosis of Alzheimer's disease and the care requirement is unsustainable. Informal caregivers spend an average of 37 hours for their loved one, leading to an unmanageable burden in many cases, with reduced working hours (20%) and mental health issues (57%) (3).

Given the pressure on the care capacity in the Dutch healthcare system, analysing the formal and informal care demands of new interventions, aligned with other health-economic evaluations, can support informed decision-making and contribute to a more sustainable healthcare system.



1. Hendrikse B. Dementie prognoses gemeente [Internet]. Vektis; 2022 Sep. 2. RIVM. Dementie | Infographic | Volksgezondheid en Zorg [Internet]. 2024 [cited 2025 Jan 30]. Available from: https://www.vzinfo.nl/dementie/infographic. 3. van der Heide I, de Graaff M, van den Buuse S, Rikkers-Pluijlaar I, Bos N. Dementiemonitor 2024 [Internet]. Alzheimer Nederland & NIVEL; 2024 Nov. Available from: https://www.alzheimer-nederland.nl/belangenbehartiging/dementiemonitor. 4. RIVM. Trendscenario | Volksgezondheid Toekomst Verkenning [Internet]. 2018 [cited 2024 Oct 24]. Available from: https://www.vtv2018.nl/trendscenario. 5. Zorginstituut Nederland. Horizonscan Geneesmiddelen Donanemab [Internet]; https://www.horizonscangeneesmiddelen.nl/geneesmiddelen/donanemab-neurologische-aandoeningen-dementie/versie5#label-product. 6. Claus JJ, Vom Hofe I, van Ijlzinga Veenstra A, Licher S, Seelaar H, de Jong FJ, et al. Generalizability of trial criteria on amyloid-lowering therapy against Alzheimer's disease to individuals with mild cognitive impairment or early Alzheimer's disease in the general population. Eur J Epidemiol. 2025 Mar 23. 7. Kile SMA, Kim J, Zhao C, Urban T, La Vallee L, Mukundan G, et al. Lecanemab Experience and ARIA Observations at a Large Community-based Health Care System (LP035).





Simonvanderschans@health-ecore.com