

The Economic Burden of Parkinson's Disease in the Netherlands: from Societal Impact to Investments in Health Solutions

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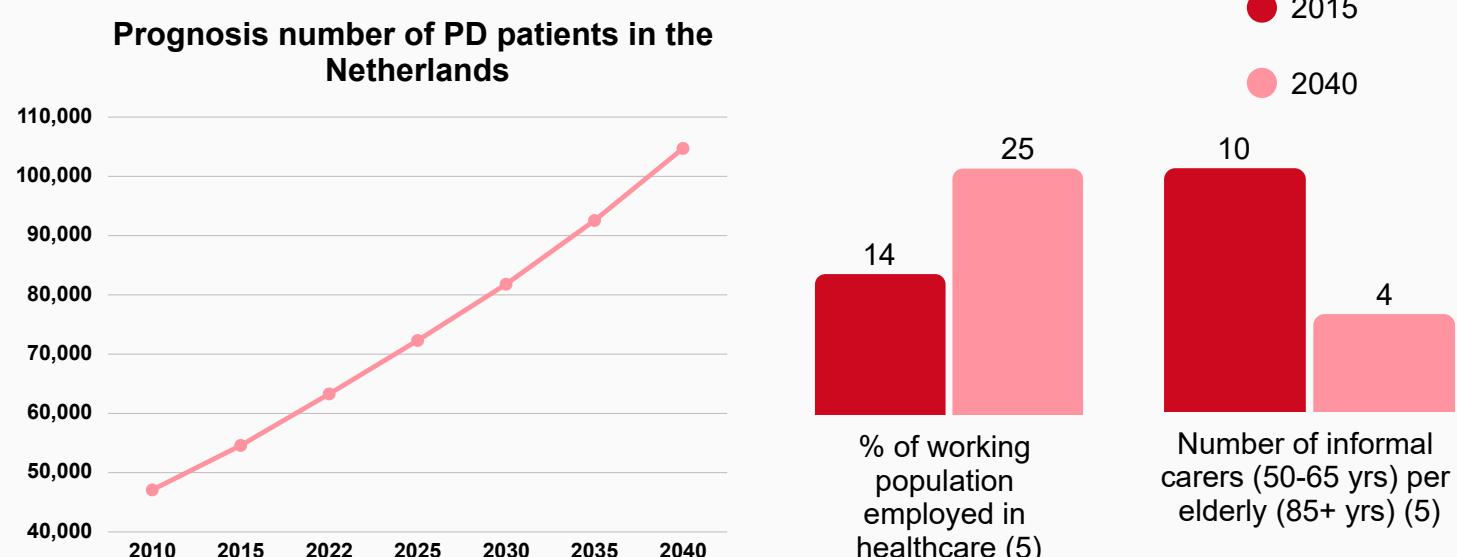
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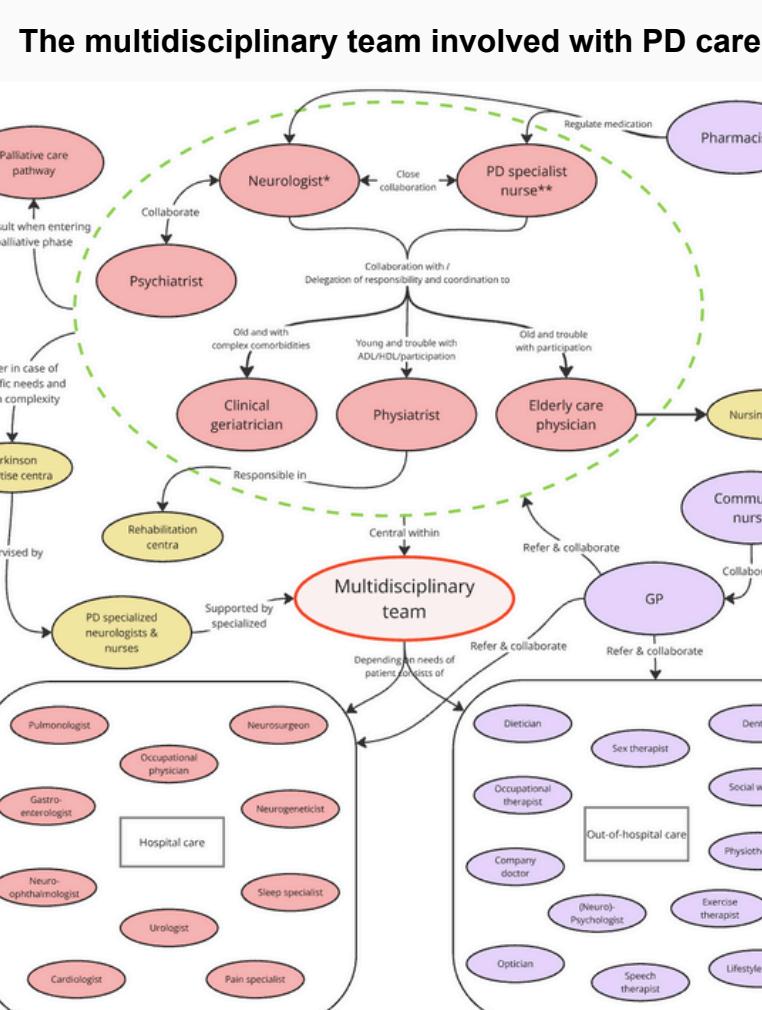
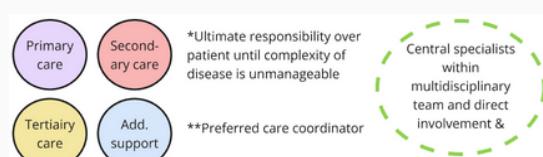
Introduction

Parkinson's Disease (PD) is the fastest growing neurodegenerative disorder with significant health, economic and broader societal implications (1). In the Netherlands, the aging population is expected to drive a substantial increase in PD prevalence, from 67,000 in 2022 to nearly 105,000 by 2040, intensifying pressure on the healthcare system and informal care networks (2,3,4).



PD is a very complex disease with a lot of heterogeneity between patients regarding its clinical manifestations. During treatment, a versatile multidisciplinary team is involved, with its composition tailored to each patient's specific needs (6). So far, a comprehensive overview of the costs associated with this complex PD pathway and of additional broader societal elements has been lacking.

Legend:



Aim

This study aims to quantify the total societal costs of Parkinson's disease in the Netherlands and identify potential key cost drivers to inform future healthcare decision-making.

Methods

Cost of illness study

Societal, including direct medical, indirect (productivity losses and benefits, informal care costs

Top-down analysis of cost year 2022

Scientific literature, insurance data, national statistics

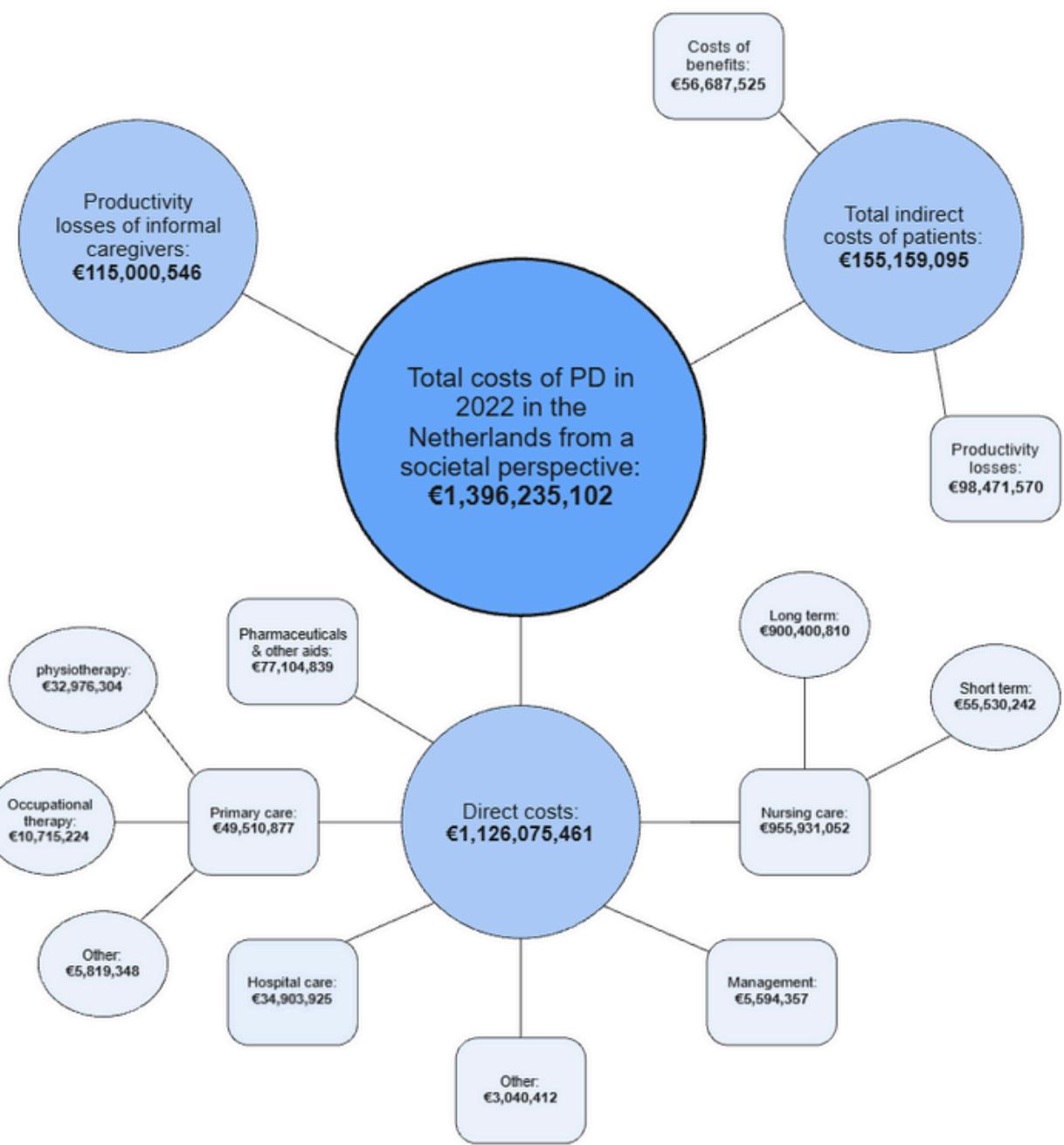
Regional differences, key cost drivers

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- Data on file

Results

The figure below displays the results of the cost analysis. It is a preliminary rough estimation based on a limited amount of literature that was available. The "Kosten van Ziekten" study was used as a base for the direct costs calculation, but lacked in providing an accurate overview. Where possible, additional literature was gathered to improve the analysis of the medical costs (nursing care (4), primary care (7)) and indirect costs (productivity losses (8,9), benefit costs (9)).



Areas of focus for future decision-making to improve PD healthcare and potentially reduce costs:

- Improve cost data availability by increasing transparency and investing in registries and research.
- Improve integrated care networks to support multidisciplinary collaboration and reduce costs (10).
- Invest in lifestyle interventions as part of the treatment pathway, to increase patient's health and decrease progression (11).
- Invest in toxin exposure prevention, which is, besides an ageing population, known to be one of the drivers of the increasing PD population (12).
- Be aware of regional differences in healthcare utilization related to population density or age, and act accordingly (13).

Conclusion

Based on our top-down cost of illness analysis, the total societal costs of PD in 2022 was estimated on almost 1.4 billion euros. The categories with the largest impact were nursing care (€955 mln), productivity losses of informal caregivers (€115 mln) and productivity losses of patients (€98 mln). This is a rough estimation based on the scarce data available. Potential areas of interest to improve PD healthcare and reduce costs include improving integrated care networks, incorporating lifestyle interventions and preventing toxin exposure. Improving data availability will be key for informing future decision-makers accurately.



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