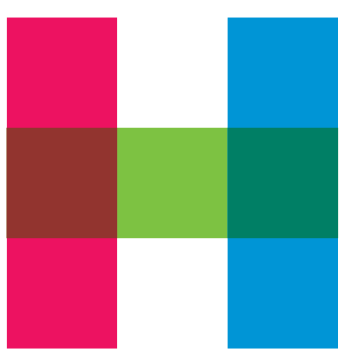




Exploratory Assessment of the Societal Impact of Changing Informal Care Hours in the Netherlands

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Introduction

- Informal care is essential for supporting older adults and people with chronic conditions.
- In the Netherlands, societal costs were estimated at €17.5–30.1 billion in 2019 (2.15–3.71% of GDP) and are expected to increase further with the aging population¹.
- Estimates of informal care vary depending on how care is defined and measured
- This study projects future societal costs under broad and strict definitions, showing how the choice of definition and valuation method affects national estimates.

Methods

- Projected societal value of informal care using a microsimulation model with Dutch demographic projections.
- Age- and sex-specific caregiving rates derived from two definitions:
 - Strict: care ≥3 months or ≥8 hours/week²
 - Broad: any informal care in the past year¹
- Estimated caregiver numbers applied to projected populations to calculate total caregiving hours.³
- Caregiving hours valued using two approaches:
 - Opportunity cost of time – value of time lost to informal care, estimated using leisure time, minimum wage, a share of average wage, or average wage.
 - Proxy-good method – replacement cost of household/domestic care (see Table 1).
- Additional analysis: demand for informal care by age and proximity to death in the 50+ population projected using SHARE data, applied to population projections up to 2050.⁴

Table 1. Methods for valuing informal care: description and applied values

Valuation Method	Value (€/hour)	Description
Opportunity cost method		
• Leisure time	€9.95	Values the time spent on informal care based on leisure time forgone, monetized as the equivalent of one hour of non-business travel time savings ^{1,5}
• Minimum wage	€14.06	Values the time spent on informal care based on the minimum wage for adults aged 21 and older. ^{5,6}
• National average wage	€46.49	Values the time spent on informal care using of the national average gross wage. ^{5,7}
• Proportion of national average wage (33%)	€15.34	Values the time spent on informal care using 33% of the national average gross wage. ^{5,7}
Proxy-good method		
• Household/ domestic care	€20.17	Values the time spent on informal care using the standard hourly rate of household/domestic care, following the Dutch costing manual. ⁸

Results

Projected changes in caregivers and informal care (2025–2050):

- Number of caregivers:
 - Using a strict definition (SD), the number of caregivers is expected to increase by 41.1%
 - Using a broad definition (BD), which includes occasional caregivers, the increase is 20.7%
- Demand for informal care among people aged 50+:
 - The need for care is projected to increase by 50.2%
- Annual total hours of informal care:
 - In 2025, caregivers provide 1.35 billion hours (SD) and 1.63 billion hours (BD) of care.
 - By 2050, these numbers are projected to rise to 1.91 billion hours (SD) and 2.00 billion hours (BD), illustrating the increasing burden on informal caregivers.

- Figure 1 shows the range of projected value of informal care in the Netherlands between 2025 and 2050, accounting for demographic changes.
 - Upper boundary: Maximum value based on the opportunity cost of productivity (BD).
 - Lower boundary: Minimum value based on the opportunity cost of leisure time (SD).
- Valuations from other methods fall within this range.

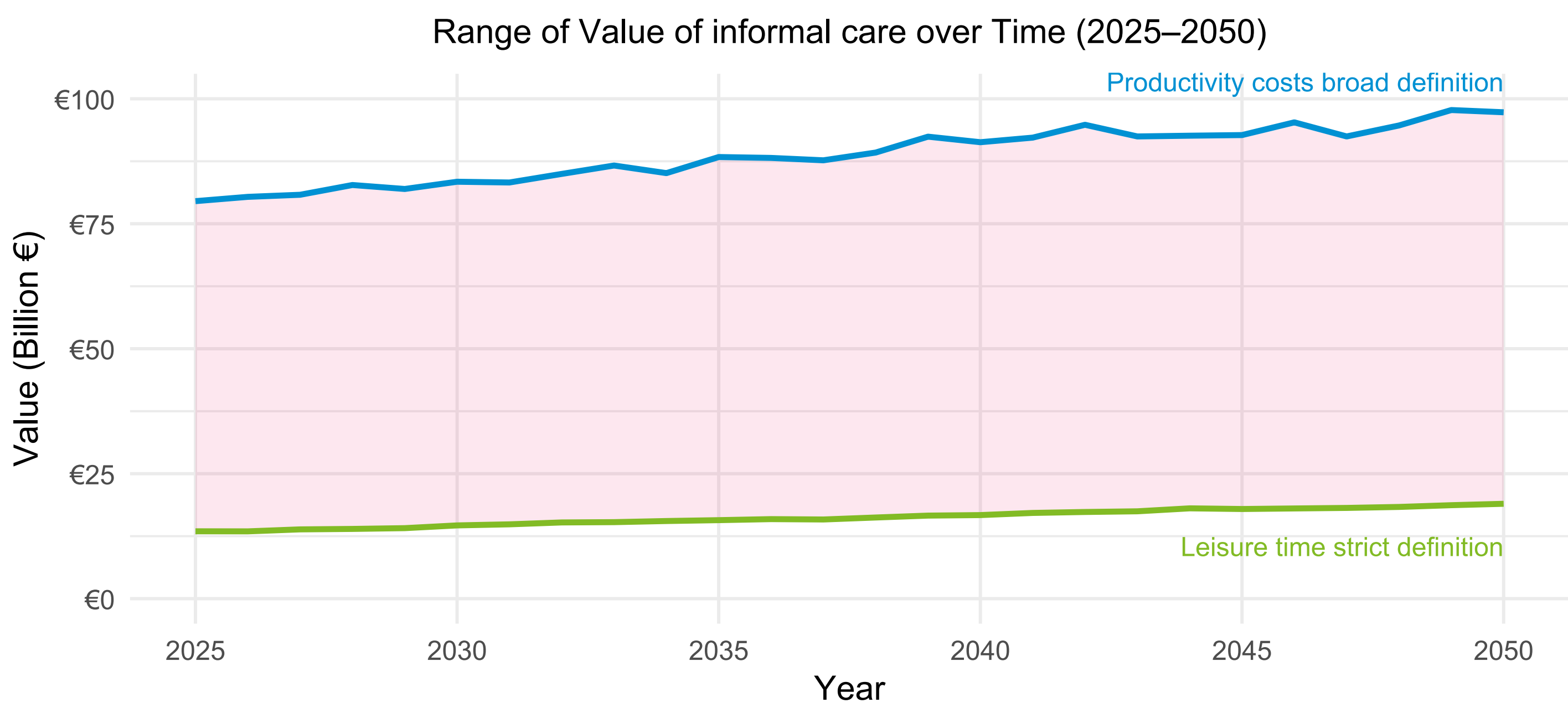


Figure 1. Range of projected value of informal care in the Netherlands

- Figure 2 shows how the value of informal care changes between 2025 and 2050.
 - Values are shown for each valuation method used.
 - Differences are also examined by the definition of informal care (SD vs. BD).

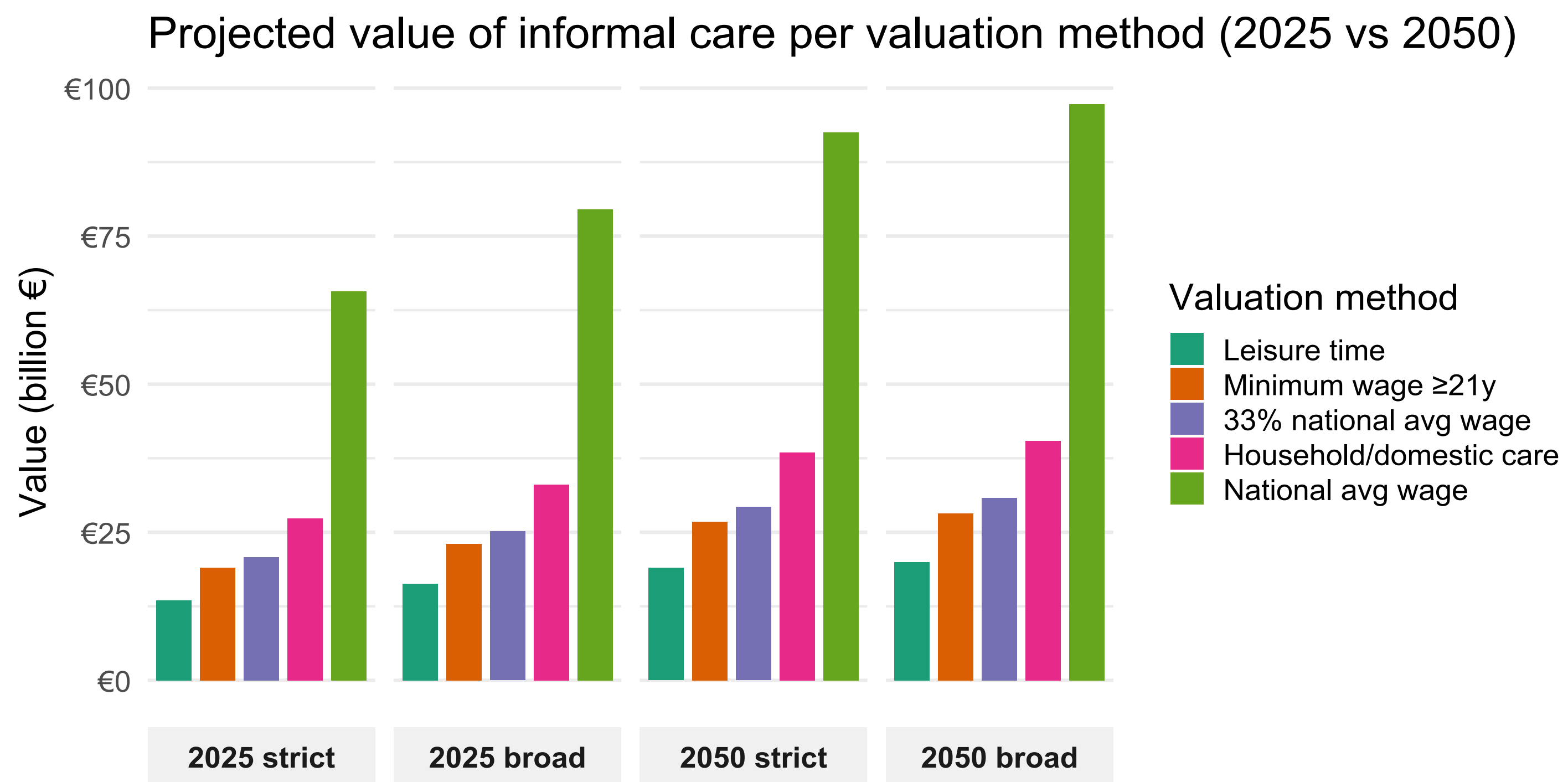


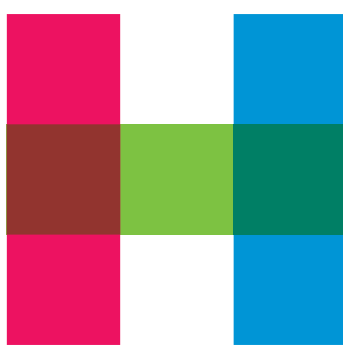
Figure 2. Projected value of informal care in the Netherlands (2025–2050) by valuation method and definition (broad vs. strict).

Conclusion

- Informal care is becoming increasingly important in the Netherlands, but its valuation remains complex.
- Care responsibilities affect people in different ways: some displace work, while others reduce leisure or social activities, making accurate assessment challenging.
- A mixed approach values informal care based on its impact on caregivers’ lives, using methods such as opportunity cost of leisure for lost free time and productivity losses for reduced work.
- The choice of valuation method for informal care can have a substantial impact on cost-effectiveness analyses.
- Future research should explore how the mix of valuation methods is distributed to improve estimates of informal care value.

References

- Elayan S, Angelini V, Buskens E, et al. The Economic Costs of Informal Care: Estimates from a National Cross-Sectional Survey in The Netherlands. Eur J Health Econ HEPAC Health Econ Prev Care. 2024 Nov;25(8):1311–31.
- Participatie | Verantwoording | Definities | Volksgezondheid en Zorg [Internet]. Available from: <https://www.vzin.nl/participatie/verantwoording/definities#mantelzorg>
- StatLine - Leefstijl; persoonskenmerken [Internet]. Available from: <https://opendata.cbs.nl/#/CBS/nl/dataset/85457NED/table?dl=9B167>
- de Groot S, Santi I, Bakx P, et al. Informal Care Costs According to Age and Proximity to Death to Support Cost-Effectiveness Analyses. PharmacoEconomics. 2023 Sep;41(9):1137–49.
- Statistiek CB voor de. Centraal Bureau voor de Statistiek. 2025. Consumentenprijzen; prijsindex 2015=100. Available from: <https://www.cbs.nl/nl-nl/cijfers/detail/83131NED>
- Zaken M van A. Minimum wage amounts - Minimum wage - Government.nl [Internet]. Ministerie van Algemene Zaken; 2023. Available from: <https://www.government.nl/topics/minimum-wage/minimum-wage-amounts>
- Zorginstituut Nederland. Kostenhandleiding voor het uitvoeren van economische evaluaties in de gezondheidszorg (versie 2024) - Publicatie - Zorginstituut Nederland [Internet]. Ministerie van Volksgezondheid, Welzijn en Sport; 2024 Jan. Available from: <https://www.zorginstituutnederland.nl/publicaties/publicatie/2024/01/16/richtlijn-voor-het-uitvoeren-van-economische-evaluaties-in-de-gezondheidszorg>
- Nederland Z. Verdiepende analyses 2018-2022 | Zorgcijfersdatabank.nl [Internet]. Zorginstituut Nederland; [cited 2024 Nov 15]. Available from: https://www.zorgcijfersdatabank.nl/databank?infotype=zvw&label=00-totaal&geg_zvw=jyverdiepnew23&geg_wlz=jjaarNEW&meta_tabel=kosten&label=B_kost&item=



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