

Healthcare Utilisation and Costs of Mild Cognitive Impairment with Comorbid Neuropsychiatric Symptoms

POSTER

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INTRODUCTION

- Mild cognitive impairment (MCI) and mild behavioural impairment (MBI) are increasingly recognised as early, at-risk conditions preceding dementia onset.
- Early identification** of MCI/ MBI offers a critical window for intervention, risk stratification, and prevention strategies targeting progression to dementia.
- While the prevalence and prognostic significance of MCI/ MBI are widely studied, their **broader social implications** remain under-examined.
- Understanding the **healthcare use patterns and costs** in MCI and MBI populations is essential for planning resource allocation and developing cost-effective early intervention strategies.

OBJECTIVE

- To estimate the healthcare utilisation patterns and economic costs of MCI, with or without neuropsychiatry symptoms (NPS), in community-dwelling Chinese older adults.

METHODS

- Study design:** a territory-wide, population-based and cross-sectional survey, Hong Kong Mental Morbidity Survey for Older People.
- Participants:** 411 community-living older adults. Categorised into four groups: (1) no MCI or NPS: 116; (2) NPS only: 37; (3) MCI only: 188; (4) MCI and NPS: 70.
- Measurement:** MoCA, Clinical Dementia Rating (CDR), comorbidity, Neuropsychiatric Inventory (NPI).
- MCI definition:** CDR=0.5.
- NPS definition:** presence of more than two symptoms on the NPI or a documented history of common mental disorders.
- Cost of illness survey:** Resource Use in Dementia (RUD), including medical, social and informal care.
- Cost estimation:** bottom-up costing approach to calculate per person annual costs (year 2022).
- Data analysis:** Group differences were examined by analysis of variance and regression analysis.

RESULTS

- Total annual cost**
 - No MCI/ NPS: US\$3,519 ± 4,398
 - NPS only: US\$3,849 ± 3,849
 - MCI only: US\$5,305 ± 5,140
 - MCI + NPS: US\$6,362 ± 7,260
- Medical care**
 - MCI comorbid with NPS incurred higher costs than other groups (normal, NPS/ MCI only) (P<0.05).
 - Mainly in emergency and outpatient services.
- Social care**
 - MCI comorbid with NPS incurred higher costs than normal control (P=0.095).
- Informal care**
 - MCI incurred higher costs than normal/ NPS only (P<0.05), mainly in IADL.
 - MCI + NPS showed trends of higher cost than NPS only (P=0.093).

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CONCLUSIONS

- MCI, particularly comorbid with NPS,** significantly increase healthcare and informal care costs in older adults.
- We underscore the importance of early detection and management of **behavioural and cognitive changes** in ageing populations.
- Further studies are needed on how healthcare utilisation evolves with the trajectory of behavioural and cognitive changes.

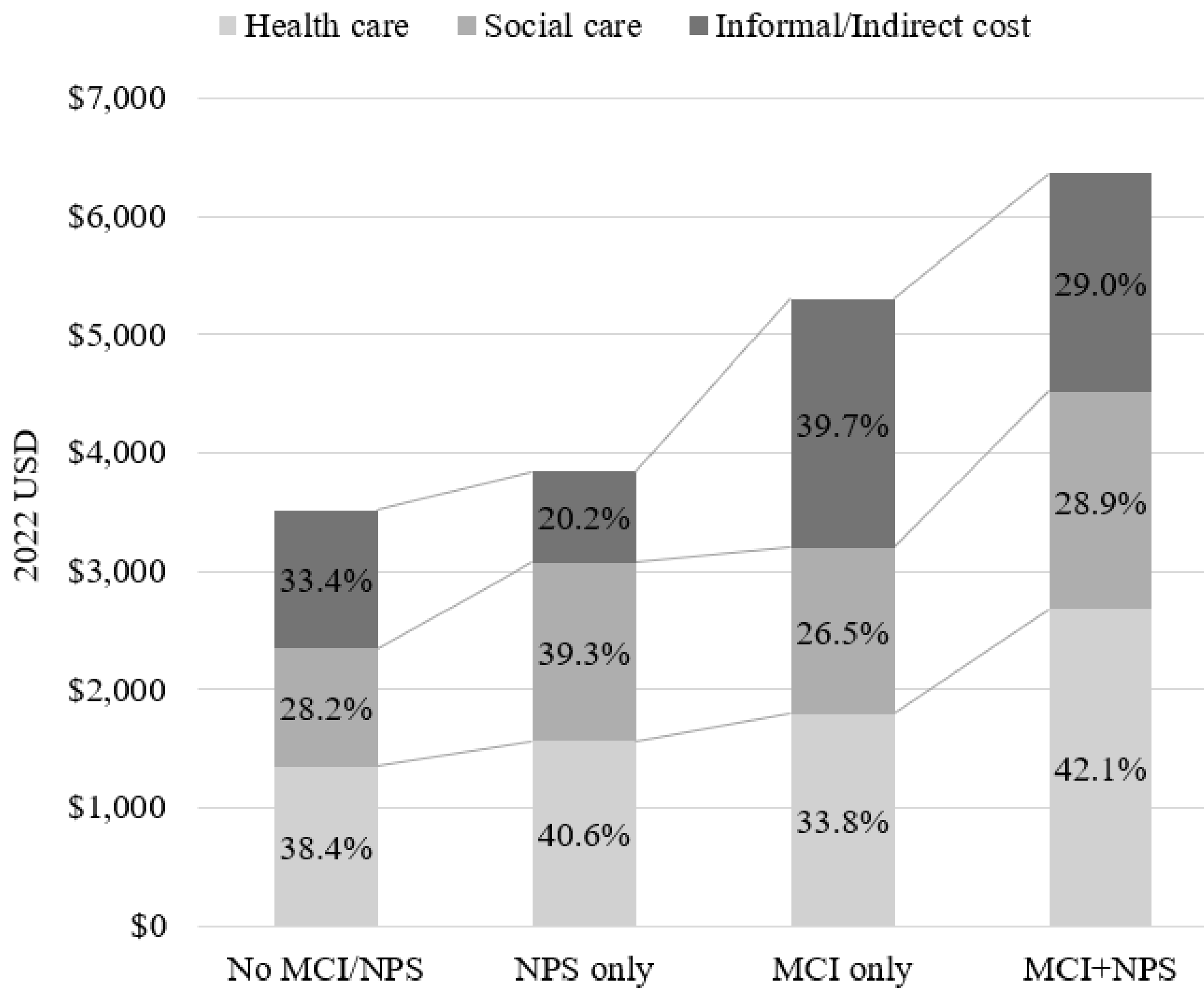


Figure. Costs of MCI and NPS. (1) Compared to no NPS/MCI: ^ P<.10, * P<.05, ** P<.01, *** P<.001; (2) Compared to NPS only: + P<.05, ++ P<.01, +++ P<.001; (3) Compared to MCI only: # P<.05, ## P<.01, ### P<.001.