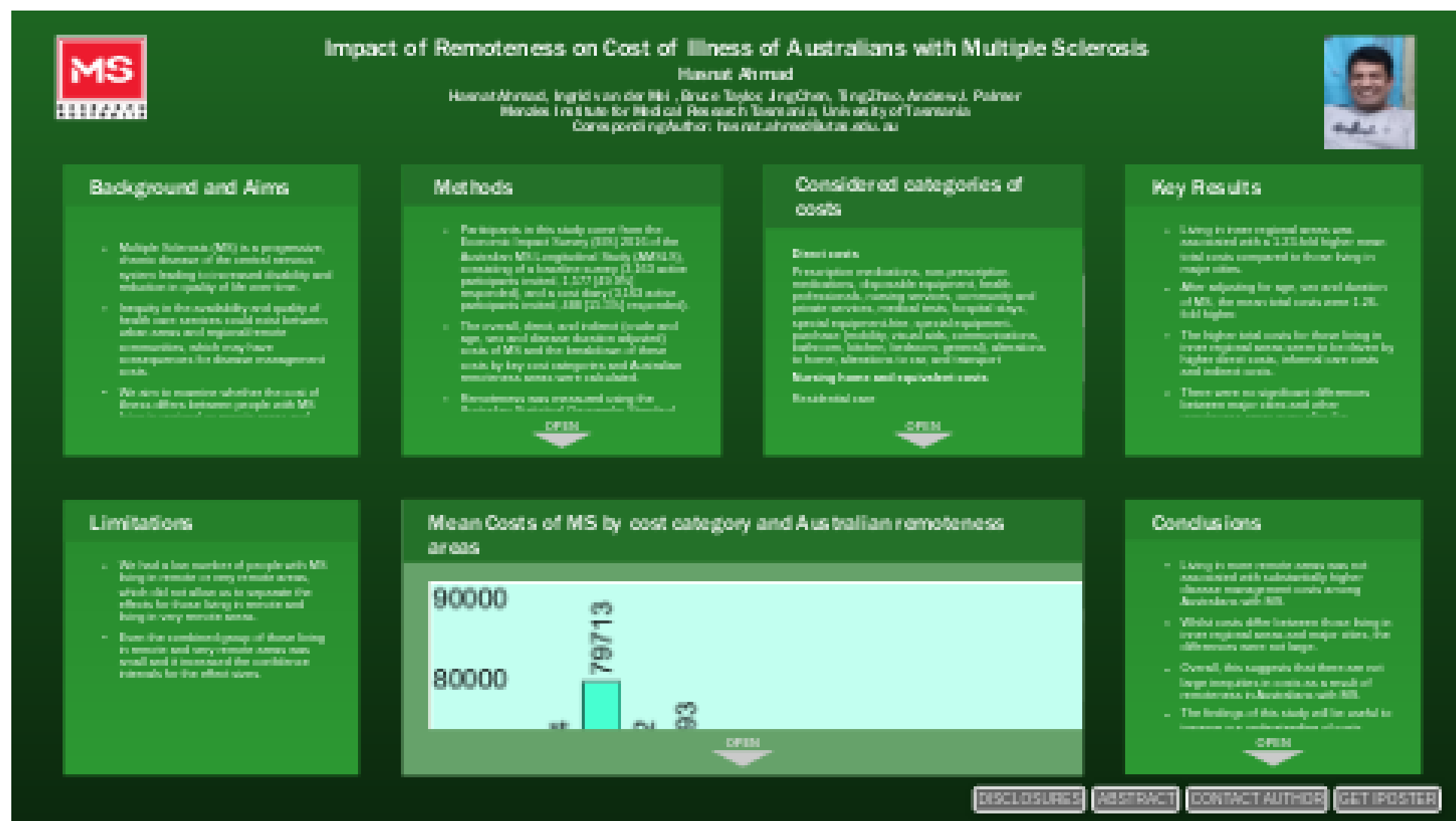


Impact of Remoteness on Cost of Illness of Australians with Multiple Sclerosis



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PRESENTED AT:



BACKGROUND AND AIMS

- Multiple Sclerosis (MS) is a progressive, chronic disease of the central nervous system leading to increased disability and reduction in quality of life over time.
- Inequity in the availability and quality of health care services could exist between urban areas and regional/remote communities, which may have consequences for disease management costs.
- We aim to examine whether the cost of illness differs between people with MS living in regional or remote areas and those living in major cities, and what factors may explain these differences.

METHODS

- Participants in this study come from the Economic Impact Survey (EIS) 2016 of the Australian MS Longitudinal Study (AMSLS), consisting of a baseline survey (3,163 active participants invited, 1,577 [49.9%] responded), and a cost diary (3,163 active participants invited, 488 [15.5%] responded).
- The overall, direct, and indirect (crude and age, sex and disease duration adjusted) costs of MS and the breakdown of these costs by key cost categories and Australian remoteness areas were calculated.
- Remoteness was measured using the Australian Statistical Geography Standard Remoteness Structure, and classified as: 1) Major Cities, 2) Inner Regional Areas, 3) Outer Regional Areas, and 4) Remote/very Remote Areas.

CONSIDERED CATEGORIES OF COSTS

Direct costs

Prescription medications, non-prescription medications, disposable equipment, health professionals, nursing services, community and private services, medical tests, hospital stays, special equipment-hire, special equipment-purchase (mobility, visual aids, communications, bathroom, kitchen, bedroom, general), alterations to home, alterations to car, and transport

Nursing home and equivalent costs

Residential care

Informal care costs

Costs to carers due to reduced employment

Indirect costs from lost wages

Early retirement, occupation change and employment status change (e.g.: from fulltime to part-time)

Indirect costs from lost productivity*

Absenteeism and presenteeism costs*

*MS-related work productivity loss was measured from the Employment Survey 2015

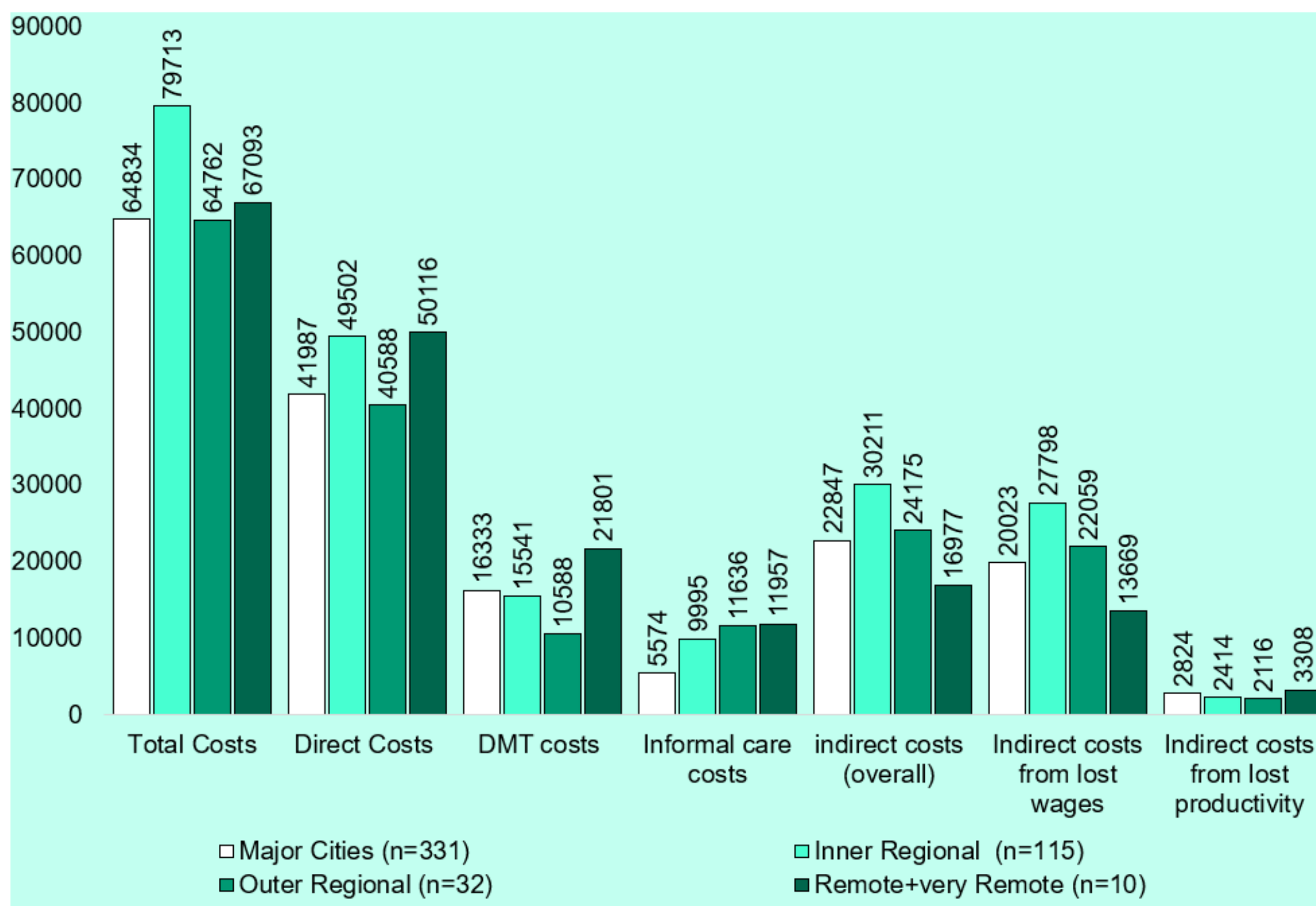
KEY RESULTS

- Living in inner regional areas was associated with a 1.23-fold higher mean total costs compared to those living in major cities.
- After adjusting for age, sex and duration of MS, the mean total costs were 1.26-fold higher.
- The higher total costs for those living in inner regional areas seem to be driven by higher direct costs, informal care costs and indirect costs.
- There were no significant differences between major cities and other remoteness areas even after the multivariable adjustments.

LIMITATIONS

- We had a low number of people with MS living in remote or very remote areas, which did not allow us to separate the effects for those living in remote and living in very remote areas.
- Even the combined group of those living in remote and very remote areas was small and it increased the confidence intervals for the effect sizes.

MEAN COSTS OF MS BY COST CATEGORY AND AUSTRALIAN REMOTENESS AREAS



Notes: Direct costs include medical and non-medical costs (e.g.: informal care costs). Indirect costs include costs from lost wages (due to leaving employment, occupation change and employment status change) and lost productivity (due to absenteeism and presenteeism).

CONCLUSIONS

- Living in more remote areas was not associated with substantially higher disease management costs among Australians with MS.
- Whilst costs differ between those living in inner regional areas and major cities, the differences were not large.
- Overall, this suggests that there are not large inequities in costs as a result of remoteness in Australians with MS.
- The findings of this study will be useful to improve our understanding of costs differences among people with MS living in regional or remote areas and those living in major cities, and what factors may explain these differences.

DISCLOSURES

Disclosure Information:

This work was a MS Research Australia initiative and was generously supported by an unconditional grant provided to MS Research Australia by Merck Australia. The Australian Multiple Sclerosis Longitudinal Study (AMSLS) is one of MS Research Australia's collaborative research platforms. The authors have no conflict of interest to disclose.

ABSTRACT

Title: Impact of remoteness on cost of illness of Australians with multiple sclerosis

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Aims and Objectives:

Inequity in the availability and quality of health care services could exist between urban areas and regional/remote communities, which may have consequences for disease management costs. We aim to examine whether the cost of illness differs between people with multiple sclerosis (MS) living in regional or remote areas and those living in major cities, and what factors may explain these differences.

Methods

Participants in this study come from the Economic Impact Survey (EIS) 2016 of the Australian MS Longitudinal Study (AMSLS), consisting of a baseline survey (3,163 active participants invited, 1,577 [49.9%] responded), and a cost diary (3,163 active participants invited, 488 [15.5%] responded). Remoteness was measured using the Australian Statistical Geography Standard Remoteness Structure, and classified as major cities, inner regional areas, outer regional areas, and remote/very remote areas. The overall, direct, and indirect (crude and age, sex and disease duration adjusted) costs of MS and the breakdown of these costs by key cost categories and Australian remoteness areas were calculated.

Results

Living in inner regional areas was associated with a 1.23-fold higher mean total costs compared to those living in major cities. After adjusting for age, sex and duration of MS, the mean total costs were 1.26-fold higher. The higher total costs for those living in inner regional areas seem to be driven by higher direct costs, informal care costs and indirect costs. There were no significant differences between major cities and other remoteness areas even after the multivariable adjustments.

Conclusions

Living in more remote areas was not associated with substantially higher disease management costs among Australians with MS. Whilst costs differ between those living in inner regional areas and major cities, the differences were not large. Overall, this suggests that there are not large inequities in costs as a result of remoteness in Australians with MS.