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## CONFERENCE ABSTRACT

# Impact of multimorbidity on health care utilisation in Australian older adults aged 45 years and over: a large population-based data linkage cohort study

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**Background:** Multimorbidity (MM), co-occurrence of two or more chronic health conditions in an individual, is often used in the assessment of complex healthcare needs and their impact on health outcomes. Management of MM is complex, but little is known about the impact of MM on health care services.

**Methods:** We conducted a cross-sectional study among people aged 45+ years in New South Wales, Australia, who completed baseline questionnaires in the 45 and Up Study between 2005-2009. Baseline questionnaire data were linked to hospital, primary care Medicare billings, emergency department (ED), and deaths registry data. Our outcome of interest was high use of health care services within the 3-year baseline period (averaged over the years before, during and after recruitment). People who died during that period were excluded. High use was defined as:  $\geq 11$  General Practice (GP) visits,  $\geq 2$  ED visits, and  $\geq 2$  hospital admissions. Prevalence ratios (PRs) were used to measure the impact of MM, and Poisson regression models were used to estimate adjusted and unadjusted PRs with 95% confidence intervals.

**Results:** Among 251,689 participants (46.5% male, and 46.1% aged <60 years), the overall prevalence of MM was 44.1% and prevalence increased with age: 32.2% in 45-59 years, 50.3% in 60-74 years, and 63.3% in 75+ years. After adjusting for confounding, MM was associated with high service use: adjusted PR (95% CI) was 2.27 (2.06-2.51) for high hospital use, 2.02 (1.98-2.06) for high GP use, and 2.04 (1.90-2.21) for high ED use. The impact of MM on health care utilisation was higher among the younger age group.

**Conclusion:** This study illustrates the burden of multimorbidity on service use within the health system. It also highlights the need to examine and rationalise service provision and utilisation across the health system to assist people with multimorbidity efficiently manage their conditions.