
POSTER ABSTRACT**Identifying risk factors for becoming obese: a record linkage longitudinal study in metropolitan Sydney using the 45 and Up Study**23rd International Conference on Integrated Care, Antwerp, Flanders, 22-24 May 2023Kylie Vuong^{1,2}, A Y M Alamgir Kabir³, Damian Conway^{4,5}, Margaret Williamson³, Mark Harris³, Margo Barr³

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Background: Obesity is the fourth leading cause of mortality globally. Australia has one of the world's highest rates of adult obesity, with 31% being obese in 2017/2018, and increasing. If this trend continues, the Australian Bureau of Statistics predicts 18 million Australians will be obese or overweight by 2030. We aimed to identify risk factors for becoming obese among people aged 45 years and older.

Methods: A record linkage longitudinal study of people from metropolitan Sydney was undertaken using data from the: 45 and Up Study at baseline (2005-2009) and first follow-up (2012-2015); Medicare Benefits Schedule; Pharmaceutical Benefits Scheme; and deaths registry. We examined risk factors for becoming obese (Body Mass Index [BMI]:30-40) at follow up (5-7 years after baseline), separately for people within the: healthy weight range (BMI:18.5- <25), and overweight range (BMI: 25- <30) at baseline. We considered demographics, modifiable behaviours, health status, primary care usage, and medication use as covariates. Crude and adjusted relative risks (RR) were measured using Poisson regression model.

Results: At follow up, in the healthy weight range cohort, 1.1%(180 of 16,205) people became obese, and in the overweight range cohort, 12.7%(1,939 of 15,266) people became obese. In both cohorts, the following were associated with an increased risk of becoming obese: current smokers, physical functioning limitations, allied health services use through team care planning and use of psychiatric medications, while alcohol consumption and adequate physical activity were found to be protective. In the healthy weight cohort, high psychological distress was associated with an increased risk of becoming obese. In the overweight cohort, being female and full-time work were associated with increased risk, while older age was found to be protective.

Conclusions: These findings should assist primary care clinicians to identify patients with characteristics that place them at risk of becoming obese for intervention.