Introduction and Aims: There is little known about the extent to which long term patterns of maternal alcohol consumption predict subsequent offspring problem gambling. This study aims to examine whether different maternal alcohol consumption trajectories predict young adult problem gambling at child age 21 years and whether these associations differ by the gender of the child.

Design and Methods: Data are from a prospective cohort Mater-University of Queensland Study of Pregnancy and its outcomes. The study involves 1,035 mother-child pairs for whom data are available at 21 year follow-up survey. Maternal alcohol consumption trajectories were determined by group-based trajectory modelling. Canadian Problem Gambling Severity Index was used to assess 12 month young adult problem gambling.

Results: Over 14 years of follow-up after the birth of a child, three distinct maternal alcohol consumption trajectories were identified: abstainers, low stable drinkers, and moderate escalating drinkers. A maternal trajectory of moderate escalating alcohol consumption independently predicted different levels of problem gambling among male offspring at 21 years after adjustment for a range of potential confounders. There is no statistical association between maternal drinking trajectories and female offspring's problem gambling.

Discussion and Conclusions: The maternal moderate escalating alcohol consumption trajectory independently predicts male young adults' problem gambling. There is need to determine the causal pathway linking maternal alcohol consumption and offspring gambling behavior. This study suggests the risk of male offspring problem gambling could be preventable in young adulthood if member of maternal moderate escalating drinkers trajectory is a target of intervention program.

Disclosure of Interest Statement: None