

## **Socio-economic status, incidence of type 2 diabetes and relative mortality in Scotland 2001-2007**

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**Background and aims:** Relative risks of mortality associated with type 2 diabetes (T2DM) have declined in recent years but are higher in women than men in many populations. The role of socio-economic status (SES) in risk of mortality among people with diabetes is not clear.

### **Materials and methods:**

We used data from a population-based national diabetes register to investigate the associations between T2DM, socio-economic status (SES) and mortality. SES was categorised with Q5 and Q1 representing the most deprived and most affluent quintiles from an area-based measure. Age-standardised incidence for 2004 and relative risks (RR) for all-cause mortality among people with incident T2DM of 35 to 84 years of age between 2001 and 2007 were estimated using general population data, the European standard population and Poisson regression models.

**Results:** Complete data were available for 111,441 people who developed type 2 diabetes between 2001 and 2007 and there were 8,775 deaths before the end of 2007. SES had a more marked effect on age-standardised incidence of T2DM among women (717.5 vs 357.2 per 100,000, age-adjusted RR for Q5 vs Q1 (95% confidence interval [CI]) 1.91 (1.62-2.25)) than men (comparable estimates 918.6 vs 568.9 per 100,000, 1.59 (1.38-1.84)). Age and SES adjusted RR (95% CI) for mortality were 0.97 (0.93 to 1.01) for men and 1.11 (1.07 to 1.16) for women. Age and sex adjusted RR for mortality associated with type 2 diabetes was lower for Q5 (0.93 (0.89-0.97)) than for Q1 (1.19 (1.12 to 1.27)).

**Conclusion:** Relative risks for mortality associated with incident T2DM were lower in this population than reported in previous studies. Incident diabetes was not associated with increased mortality among men but was associated with higher mortality in women compared to women without diabetes. SES modifies the effect of T2DM on mortality but does not explain sex differences in RR. Further work is required to establish whether these findings can be explained by risk factor patterns.