(partial) correlations showed significant associations between whole blood serotonin and BMI ($r=-0.284$, $p=0.021$) and waist circumference ($r=-0.325$, $p=0.008$). The correlational nature of these analyses do not enable conclusions to be drawn as to cause and effect but suggest an interplay between obesity and lower whole blood serotonin levels.

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### P2-290 SOCIOECONOMIC STATUS AND MORTALITY AMONG PEOPLE WITH DIABETES MELLITUS IN LATVIA

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**Introduction** The chronic course of the disease and regular need for healthcare suggests that people with diabetes mellitus might be more affected by the socioeconomic inequalities in health. We are not sure what socioeconomic differences exist in mortality of diabetes patients in Latvia.

**Methods** The study population consisted of 4179 diabetes patients (1559 men and 2620 women) participating in the Latvian diabetes survey in 2000. All deaths (n=1771) during a subsequent ten-year period and causes of death were identified through the Causes of Death Data Base. The Cox model was test used to associations (HR (95% CI) presented) between education, income and residence (rural/urban) and mortality, adjusted for age, duration of diabetes, glycaemia, and blood pressure.

**Results** The primary education, compared to the higher education, was associated with an increase in all-cause, cardiovascular mortality and death from diabetes in both men (1.45 (1.16-1.82); 1.45 (1.07-1.95); 2.53 (1.25-4.40), respectively) and women (1.91 (1.53-2.38); 1.72 (1.31-2.25); 2.37 (1.25-4.40), respectively). The lowest income tertile, compared to the highest, was associated with higher all-cause mortality in both men (1.42 (1.14-1.77)) and women (1.37 (1.14-1.65)), as well as with higher cardiovascular mortality in men (1.44 (1.06-1.94)). Rural residence was associated with lower cardiovascular mortality in men (0.70 (0.50-0.98). The strength of associations did not change substantially when smoking, alcohol consumption, or parameters of diabetes care were included in the model.

**Conclusion** Overall, diabetes patients with poorer education and lower income experienced higher mortality. These inequalities were not explained by behavioural factors or diabetes care.

### P2-292 TOTAL SERUM CHOLESTEROL AND CANCER INCIDENCE IN THE METABOLIC SYNDROME AND CANCER PROJECT (ME-CAN)

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**Introduction** The relationship between serum cholesterol and cancer risk remains controversial. We examined the association between total serum cholesterol and cancer incidence in the Metabolic Syndrome and Cancer Project (Me-Can).

**Methods** Me-Can consists of seven cohorts from Norway, Austria, and Sweden including 289,273 male and 288,057 female participants prospectively followed up for cancer incidence (n=39,004) for a mean follow-up of 11.7 years. We used Cox regression models with age as the underlying time metric to calculate HRs and their 95% CIs for 1 mmol/l increment of total cholesterol levels adjusting for age at first measurement, body mass index and smoking. Additionally, we performed lag time analyses and corrected HRs for regression dilution bias.

**Results** Significant relationships of cholesterol with cancer incidence were all inverse including liver cancer (HR=0.62; 95% CI 0.42 to 0.90) in males and cancers of the liver (0.62; 0.49 to 0.78), gallbladder (0.62; 0.44 to 0.85), breast (0.90; 0.85 to 0.94), and cancers of the lymph and haematopoietic tissue (0.85; 0.76 to 0.93) in females. In lag analyses excluding cancer events occurring up to 5 years after cholesterol measurements, relationships persisted for liver, gallbladder and breast cancer.

**Conclusions** Total cholesterol was negatively associated with cancer risk at several sites. Lag time analyses suggested that these associations are only partially explained by reverse causation.