



## COGNITIVE FUNCTION DETERMINANTS IN OLDER PERSONS IN URBAN AND RURAL POPULATION IN THE NUR-SULTAN REGION, KAZAKHSTAN: CROSS-SECTIONAL STUDY

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**Objective:** The data on the cognitive function and its determinants in older population in Central Asia is limited. The objective of the present study was to assess the cognitive function and its determinants in the population of Nur-Sultan city and adjacent rural area in Kazakhstan.

**Methods:** We implemented a cross-sectional study of urban and rural population samples (the state capital Nur-Sultan and Akmol village). Men and women aged 50–74 years were examined; a total of 954 adults participated in this study with response rate of 59%. One of the major components of cognitive function - verbal memory was assessed for this analysis using a word recall task consisting of 10 common nouns, administered over three consecutive 1-min trials. Total number of words correctly recalled for each trial was summed with an overall score of 30 at maximum. The examination also included the standardized protocol with a structured questionnaire, objective examination and collection of blood samples.

**Results:** After controlling for age and sex the presence of cardiometabolic risk factors (excluding BMI), region, ethnicity, alcohol consumption, education levels and selected socioeconomic factors were all significantly associated with cognitive function. Women, less deprived and higher educated participants, and urban residents had significantly less decline in memory. Similar to other studies, higher cholesterol levels were strongly associated with cognitive decline.

**Conclusions:** The associations of cognitive function and its determinants were as expected, and there were some specific associations with socio-demographic characteristics. The pronounced socio-demographic particularly regional differences suggest that preventive strategies may target population groups at higher risk for cognitive decline.