age-related cataracts. These reports have suggested that high and low BMIs can affect the onset or progression of age-related visual impairment. However, few prospective studies have examined this relationship in a general Asian population. Therefore, in this study, we investigated whether BMI was associated with increased risk of age-related cataracts by performing a 5-year prospective population-based study among a middle-aged Japanese population.

Methods This 5-year population-based study included 35,365 men and 40,825 women (aged 45–74), who were recruited onto the Japan Public Health Center-based Prospective Study (JPHC Study) and had not reported cataracts in baseline surveys. The self-reported diagnosis of age-related cataracts was used in the analysis of this study.

Results At follow-up, 1004 men (2.84%) and 1807 women (4.43%) reported new diagnoses of age-related cataracts. The multivariate ORs for those in the lowest and the highest BMI category, compared with a BMI category of 21.0–22.9 as a reference point (OR, 1.00), were 1.29 (95% CI 0.98 to 1.79) and 1.15 (95% CI 0.96 to 1.39) in men, and 1.23 (95% CI 0.97 to 1.55) and 1.19 (95% CI 1.04 to 1.36) in women.

Conclusion High and low BMIs have been suggested previously as risk factors for age-related cataracts. These reports have suggested that high and low BMIs can affect the onset or progression of age-related visual impairment. Therefore, in this study, we aimed to develop an opinion scale that captures self-evaluated good family relations except five reverse-coded items. Responses ranged from strongly agree (1) to strongly disagree (5). We used exploratory factor analysis with maximum likelihood extraction method.

Score distributions for all 52 items were similar, the majority of the participants “agreed” to most items. Mean score of the 52 items was 2.2 (SE=0.4). Exploratory factor analysis identified nine dimensions of the construct with Eigen values above unity, which explained 59% of total variance, and two dimensions with Eigen values of at least two, which explained 48% of total variance.

Conclusion Small variation was found for each of the 52 opinion items on family relations harmony. After item reduction, more in-depth interviews are needed to examine whether these opinion items truly reflect the state of family harmony.

Introduction To assess the ability of neuromuscular functions to predict the occurrence of disability in Japanese general population.

Methods The large-scale population-based cohort study entitled research on osteoarthritis/osteoporosis against disability (ROAD) has established three cohorts, from an urban, a mountainous, and a coastal area. The first follow-up survey was performed after 3 years and was attended by 2479 of 3040 baseline participants (81.5%). From the entire ROAD data, we utilised the data of the elderly participants (≥65 years) from the mountainous and coastal cohorts. Disability was defined by a relevant committee comprising clinical experts and physicians from each municipality. To evaluate the predictive ability of the indices of neuromuscular function, logistic regression analysis was conducted using occurrence of disability as an objective factor and the grip strength and walking speed for 6 m as explanatory factors after adjustment for age, gender, and body mass index.

Results Of the 914 participants who completed both baseline and first follow-up surveys, 88 individuals (9.6%) were defined as new cases of disability over 3 years. Logistic regression analysis indicated that the higher the grip strength, the lower is the risk of disability (+1 kg; OR, 0.90; 95% CI 0.86 to 0.95), whereas the lesser the walking speed, the greater is the risk (+1 s; OR, 1.15; CI 1.07 to 1.23).

Conclusions The cumulative incidence of disability among the elderly was 9.6% over 3 years. The indices of neuromuscular function may be potential predictive factors of the occurrence of disability over 3 years.