Japanese people tend to overestimate their future cardiovascular disease risk.

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Background:
Guidelines for the prevention of cardiovascular diseases (CVD) recommend evaluating future CVD risk using a risk calculator and treating risk factors in cases of high risk. Reportedly, people often underestimated their future CVD risk outside Japan. This could lead them not to start or adhere to the guideline-directed preventive treatment. In contrast, we feel that people often overestimate their own CVD risk in Japan, leading to requests for unnecessary preventive medication (e.g. statins). The purpose of this study is to evaluate whether people in Japan adequately estimate their future CVD risk, which is essential information in the process of shared decision making for initiation of the risk reduction therapy based on correct understanding.

Methods:
This is an interim analysis of a cross-sectional questionnaire survey, conducted in a single health check-up center in Japan, beginning in April, 2018. Patients who underwent annual physical check-up were supposed to estimate their own 10-year risk of CVD on a scale of 0-100% by a questionnaire (patient-perceived risk) after obtaining health check-up result. We calculated their 10-year CVD risk using the Suita Score (calculated risk), which is a CVD risk prediction tool recommended by Japan Atherosclerosis Society Guidelines. The patient-perceived and the calculated risk were compared by Wilcoxon signed-rank test.

Results:
We obtained informed consent from 439 patients. We collected the survey sheet from 287 patients (65.4%). Median age was 51 years, 50.2% were male. The patient-perceived risk was much higher than the calculated risk (30%; interquartile range (IQR) 20-50% vs. 2.6%; IQR 0.5-4.2%, P<0.001).

Conclusions:
People significantly overestimated their CVD risk after health check-up in Japan. We need to give correct information about the actual CVD risk in order to provide adequate CVD preventive treatment.