**Supplementary material**

**Fig. S1**

Age and sex adjusted HRQoL index scores in relation to habitual distance (a, b) and near (c, d) VA in both time points. The y-axis represents the mean index value, where 1 is the best possible HRQoL. The x-axis represents VA in decimal equivalents from 1.25 (excellent vision) to 0 (blind). Dotted line represents the trend line for year 2000 and dashed line for year 2011.



**Fig. S2**

Age-adjusted depression measured by BDI-questionnaire in relation to visual acuity. A: Scores from BDI-21 questionnaire in 2000. B: Scores from BDI-13 questionnaire in 2011

*Table S1. Stepwise-insertion regression analysis examining the changes in EQ-5D and 15D index value between 2000 and 2011, including only statistically significant factors (p<0.05).*

|  |  |  |
| --- | --- | --- |
|  | **Change in EQ-5D (n=3068)** | **Change in 15D (n=3454)** |
|  | **B Coefficients** | **Beta Coefficients** | **B Coefficients** | **Beta Coefficients** |
| Constant | 0.403 \*\* |  | 0.271 \*\* |  |
| Incident heart disease | -0.034 \* | -0.058 \* | **-0.016 \*\*** | -0.070 \*\* |
| Incident pulmonary disease | -0.028 \* | -0.039 \* | **-0.025 \*\*** | -0.087 \*\* |
| Incident vascular disease |  |  | -0.013 \* | -0.044 \* |
| Incident musculoskeletal condition | -0.038 \*\* | -0.105 \*\* | -0.007 \* | -0.049 \* |
| Incident hypertension | -0.031 \*\* | -0.068 \*\* |  |  |
| Incident diabetes |  |  | **-0.018 \*\*** | -0.067 \*\* |
| Incident psychiatric disorder | -0.062 \*\* | -0.071 \*\* | **-0.024 \*\*** | -0.069 \*\* |
| Incident Parkinson disease |  |  | **-0.076 \*\*** | -0.066 \*\* |
| Incident cancer |  |  | -0.012 \* | -0.040 \* |
| Change in Visual acuity (VA), compared to stable VA |
|  Distance VA declined | -0.063 \*\* | -0.092 \*\* | **-0.032 \*\*** | -0.117 \*\* |
|  Near VA declined | -0.027 \* | -0.047 \* | -0.012 \* | -0.054 \* |
| QoL index value in baseline | **-0.465 \*\*** | -0.421 \*\* | **-0.293 \*\*** | -0.312 \*\* |
| R2 | 0.193 \*\* | 0.191 \*\* | 0.131 \*\* | 0.128 \*\* |

*VA was considered improved or declined if difference of at least 2 lines in the Snellen eye-chart was observed between the time points. The unstandardized B coefficients show the magnitude of the impact on HRQoL while the standardized Beta coefficients allow the comparison of the explanatory variables with each other. Clinically meaningfully B coefficients are* *bolded (≥ 0.07 for EQ-5D and ≥ 0.015 for 15D [34, 35]). It should be noted that B regression coefficients represented in the table are independent and additive, meaning that if an individual experience a e.g. decline in both near and distance VA, the HRQoL impacts of both need to be considered (added together).*

*\* denotes statistical significance with p < 0.05*

*\*\* denotes statistical significance with p < 0.001*

*Table S2. Stepwise-insertion regression analysis examining the change in 15D vision dimension between 2000 and 2011, including only statistically significant factors (p<0.05)*

|  |  |  |
| --- | --- | --- |
|  | **Beta Coefficients** | **Sig.** |
| Constant | 0.679 | <0.001 |
| Incident pulmonary disease | -0.042 | 0.003 |
| Incident diabetes | -0.034 | 0.017 |
| Change in Visual acuity (VA), compared to stable VA |
|  Distance VA declined | -0.193 | <0.001 |
|  Near VA declined | -0.152 | <0.001 |
| 15D Vision dimension value in baseline | -0.492 | <0.001 |
| Adjusted R2 | 0.292 | <0.001 |
| *VA was considered improved or declined if difference of at least 2 lines in the Snellen eye-chart was observed between the time points.* *Only the standardized Beta coefficients reported to allow the comparison between the explanatory variables.* |