Supplemental Table 1 Summary of the study population

| | | 2000 | | | 2011 | | 11-ye | ar follow-up g 2011ª | roup in |
|---------------------------|------|------------------|------------|------|------------------|------------|-------|-------------------------|------------|
| | n | Mean age (SD) | % women | n | Mean age (SD) | % women | n | Mean age (SD) | % women |
| Eligible sample | 8028 | 54.2 (16.2) | 54.7 | 8006 | 55.3 (15.6) | 53.0 | 6360 | 60.6 (12.9) | 55.5 |
| Cataract status known | 7380 | 54.2 (16.1) | 55.2 | 5930 | 56.5 (15.2) | 56.0 | 4840 | 61.0 (12.8) | 56.4 |
| Cataract, all | 796 | 76.8 (10.7) | 73.6 | 954 | 75.8 (10.7) | 65.6 | 944 | 76.0 (10.4) | 65.6 |
| Cataract, operated | 521 | 78.3 (10.2) | 72.6 | 677 | 77.7 (10.7) | 65.4 | 672 | 77.9 (10.4) | 65.3 |
| Cataract, unoperated | 275 | 74.0 (11.0) | 75.6 | 277 | 71.1 (9.4) | 66.1 | 272 | 71.4 (9.0) | 66.2 |
| Cataract negative | 6584 | 51.5 (14.4) | 52.9 | 4976 | 52.9 (13.1) | 54.2 | 3896 | 57.4 (10.5) | 54.2 |
| Marital status known | 7373 | 54.2 (16.1) | 55.2 | 5701 | 55.6 (14.6) | 55.4 | 4613 | 60.1 (12.1) | 55.6 |
| Education known | 7352 | 54.1 (16.0) | 55.1 | 5676 | 55.5 (14.5) | 55.3 | 4588 | 60.0 (12.0) | 55.5 |
| Income known | 6313 | 53.0 (15.1) | 55.2 | 4408 | 56.4 (14.1) | 55.9 | 3707 | 60.0 (11.8) | 55.8 |
| Occupation known | 7240 | 53.9 (15.9) | 54.7 | 3398 | 48.7 (13.5) | 55.4 | 2395 | 54.2 (12.1) | 56.0 |
| Body mass index known | 7178 | 53.7 (15.7) | 55.0 | 5692 | 55.6 (14.5) | 55.3 | 4598 | 60.0 (12.0) | 55.6 |
| Smoking known | 7055 | 54.1 (16.0) | 55.3 | 4554 | 56.6 (14.2) | 55.7 | 3833 | 60.2 (12.0) | 55.4 |
| Alcohol consumption known | 6624 | 53.7 (15.6) | 55.8 | 4467 | 56.3 (14.0) | 55.7 | 3703 | 59.9 (11.8) | 55.7 |

Notes: SD, standard deviation. ^aThe follow-up group includes the 2011 cataract status of the persons who had participated in both time points.

Supplemental Table 2 Regional prevalence and incidence of diagnosed and self-reported cataract in the Finnish population aged 30 years or older

| | Population | Men (%) | Women (%) | Cataract, all (% / age- adjusted %) | Men (% / age- adjusted %) | Women (% / age- adjusted %) | Cataract, operated (% / age- adjusted %) | Men (% / age- adjusted %) | Women (% / age- adjusted %) |
|---|------------|----------------|----------------|---|---------------------------------|-----------------------------------|---|---------------------------------|-----------------------------------|
| Prevalence in 2000 | | | | | | | | | |
| Southern Finland | 1,206,520 | 564,481 (46.8) | 642,039 (53.2) | 115,834 (9.6/8.7) | 33,988 (6.0/5.6) | 81,846 (12.7/11.7) | 78,418 (6.5/5.7) | 23,854 (4.2/3.8) | 54,564 (8.5/7.4) |
| Western Finland | 542,438 | 256,596 (47.3) | 285,842 (52.7) | 61,677 (11.4/9.1) | 14,049 (5.5/5.4) | 47,628 (16.7/12.1) | 38,482 (7.1/5.4) | 7,938 (3.1/3.0) | 30,544 (10.7/7.4) |
| Central Finland | 539,159 | 255,727 (47.4) | 283,432 (52.6) | 59,692 (11.1/8.4) | 14,343 (5.6/4.5) | 45,349 (16.0/11.7) | 38,512 (7.1/5.2) | 10,408 (4.1/3.2) | 28,104 (9.9/7.0) |
| Eastern Finland | 536,818 | 258,089 (48.1) | 278,729 (51.9) | 71,326 (13.3/10.4) | 20,288 (7.9/7.3) | 51,038 (18.3/13.1) | 46,716 (8.7/6.6) | 12,691 (4.9/4.5) | 34,025 (12.2/8.4) |
| Northern Finland | 437,983 | 214,897 (49.1) | 223,086 (50.9) | 40,822 (9.3/8.8) | 12,239 (5.7/6.1) | 28,583 (12.8/11.2) | 26,789 (6.1/5.7) | 9,298 (4.3/4.6) | 17,491 (7.8/6.7) |
| Prevalence in 2011 | | | | | | | | | |
| Southern Finland | 1,334,484 | 632,917 (47.4) | 701,567 (52.6) | 189,234 (14.2/14.6) | 79,073 (12.5/11.7) | 110,161 (15.7/17.3) | 130,142 (9.8/10.1) | 55,181 (8.7/8.1) | 74,961 (10.7/12.0) |
| Western Finland | 568,852 | 272,530 (47.9) | 296,322 (52.1) | 98,224 (17.3/15.3) | 35,580 (13.1/11.1) | 62,644 (21.1/19.0) | 68,544 (12.0/10.6) | 26,782 (9.8/8.4) | 41,762 (14.1/12.7) |
| Central Finland | 578,565 | 278,127 (48.1) | 300,438 (51.9) | 92,727 (16.0/14.8) | 32,984 (11.9/10.5) | 59,743 (19.9/18.7) | 64,866 (11.2/10.4) | 21,604 (7.8/6.7) | 43,262 (14.4/13.7) |
| Eastern Finland | 544,047 | 263,347 (48.4) | 280,700 (51.6) | 102,630 (18.9/16.4) | 37,535 (14.3/11.9) | 65,095 (23.2/20.4) | 74,879 (13.8/11.8) | 27,309 (10.4/8.5) | 47,570 (16.9/14.7) |
| Northern Finland | 461,324 | 227,193 (49.2) | 234,131 (50.8) | 68,568 (14.9/14.9) | 25,001 (11.0/11.9) | 43,567 (18.6/17.7) | 50,466 (10.9/11.0) | 19,119 (8.4/9.3) | 31,347 (13.4/12.6) |
| Incidenceª (N / 10,000 persons / year) | | | | | | | | | |
| Southern Finland | | | | 103 | 85 | 118 | 70 | 60 | 78 |
| Western Finland | | | | 116 | 91 | 138 | 80 | 74 | 85 |
| Central Finland | | | | 113 | 84 | 138 | 80 | 56 | 101 |
| Eastern Finland | | | | 126 | 97 | 151 | 95 | 77 | 110 |
| Northern Finland | | | | 100 | 74 | 122 | 74 | 58 | 88 |

Notes: Data were acquired from the Health 2000 and 2011 surveys, and the Finnish Care Register for Health Care. alncidence between 2000 and 2011.

| | 2000 | 2011 | Incidence ^a |
|--|------------------------|------------------------|------------------------|
| Male gender | 0.51** (0.32–0.81) | 0.84 (0.55–1.28) | 0.57*** (0.46–0.71) |
| Age | 1.15*** (1.14–1.16) | 1.15*** (1.13–1.18) | 1.17*** (1.15–1.18) |
| Sufficient income vs. insufficient income | 0.73* (0.57–0.93) | | |
| Sufficient income vs. limited/insufficient income | | | 0.76** (0.62–0.93) |
| Farmer vs. other employment | | 0.72 (0.29–1.77) | |
| Ever smoker vs. never smoker | 1.16 (0.89–1.51) | 1.29 (0.71–2.34) | 1.47*** (1.18–1.83) |
| Nagelkerke's Pseudo-R ² | 0.490 | 0.561 | 0.428 |

Supplemental Table 3a Multivariable associations of socio-demographic and lifestyle factors with cataract

Notes: Odds Ratios (ORs) and 95% confidence intervals were estimated through logistic regression analysis, adjusted for all variables that made the best fitted model based on the Nagelkerke's Pseudo-R². All cataract patients were compared to individuals with no cataract (OR=1.0). alnoident cataract between 2000 and 2011, with parameters in 2000. *Denotes statistical significance with P<0.05. **Denotes statistical significance with P<0.001. ***Denotes statistical significance with P<0.001.

| | 2000 | 2011 | Incidence ^a |
|--|------------------------|------------------------|------------------------|
| Male gender | 0.67* (0.46–0.98) | 0.77 (0.45–1.33) | 0.80 (0.60–1.07) |
| Age | 1.15*** (1.13–1.17) | 1.15*** (1.13–1.18) | 1.17*** (1.15–1.19) |
| Single vs. living in a relationship | 1.54* (1.10–1.74) | | 1.16 (0.85–1.58) |
| Higher/vocational education vs. only basic education | 1.12 (0.72–1.74) | | 0.87 (0.64–1.17) |
| Sufficient income vs. insufficient income | 0.88 (0.61–1.27) | | 0.95 (0.67–1.35) |
| Employee vs. other employment | | 1.15 (0.50–2.69) | |
| Ever smoker vs. never smoker | 1.38* (1.09–1.74) | | |
| Current smoker vs. former/never smoker | | 0.74 (0.36–1.49) | 1.71** (1.17–2.48) |
| Overweight/obese vs. normal weight | | 0.62 (0.34–1.16) | |
| High alcohol consumption vs. low/no alcohol consumption | 1.10 (0.53–2.27) | | |
| Nagelkerke's Pseudo-R ² | 0.449 | 0.542 | 0.426 |

Supplemental Table 3b Multivariable associations of socio-demographic and lifestyle factors with cataract surgery

Notes: Odds Ratios (ORs) and 95% confidence intervals were estimated through logistic regression analysis, adjusted for all variables that made the best fitted model based on the Nagelkerke's Pseudo-R². All operated cataract patients were compared to unoperated cataract patients and persons with no cataract (OR=1.0). alncident cataract operation between 2000 and 2011, with parameters in 2000. *Denotes statistical significance with P<0.05. **Denotes statistical significance with P<0.01. ***Denotes statistical significance with P<0.001.

| | 2000 | 2011 | Incidence ^a |
|---|--------|-------|------------------------|
| Male gender | 4.43 | | 1.23 |
| Single vs. living in a relationship | 4.65 | 6.78* | 5.06*** |
| Higher/vocational education vs. only basic education | -5.68* | -2.94 | -4.08*** |
| Sufficient income vs. insufficient income | | 2.12 | |
| Sufficient income vs. limited/insufficient income | 2.71 | | 0.72 |
| Farmer vs. other employment | | 1.56 | |
| Employee vs. other employment | -4.18 | | -2.15* |
| Ever smoker vs. never smoker | | -4.40 | |
| Current smoker vs. former smoker | -4.21 | | |
| Current smoker vs. former/never smoker | | | -8.35*** |
| Overweight/obese vs. normal weight | 0.43 | | |
| High alcohol consumption vs. low/no alcohol consumption | -8.48 | | -3.69* |
| Adjusted R ² | 0.292 | 0.269 | 0.250 |

Supplemental Table 4 Difference in the age at the first cataract operation according to socio-demographic and lifestyle factors in a multivariable model

Notes: The unstandardised B coefficients were estimated through linear regression analysis, adjusted for all variables that made the best fitted model based on the adjusted R^2 . The B coefficients show the magnitude of difference in the age at the first cataract-related operation according to socio-demographic factors and lifestyles. alncident cataract operation between 2000 and 2011, with parameters in 2000. *Denotes statistical significance with *P*<0.05. **Denotes statistical significance with *P*<0.01. ***Denotes statistical significance with *P*<0.001.



Supplemental Figure 1. Marital status, education, income, and occupation of cataract patients and those operated due to the disease in 2000, 2011, and 2000–2011 follow-up, and the Kaplan–Meier estimator showing the survival curve of the Finnish population aged 30 years or older between 2000 and 2011



Supplemental Figure 2. Smoking, body mass index, and alcohol consumption of cataract patients and those operated due to the disease in 2000, 2011, and 2000–2011 follow-up, and the Kaplan–Meier estimator showing the survival curve of the Finnish population aged 30 years or older between 2000 and 2011