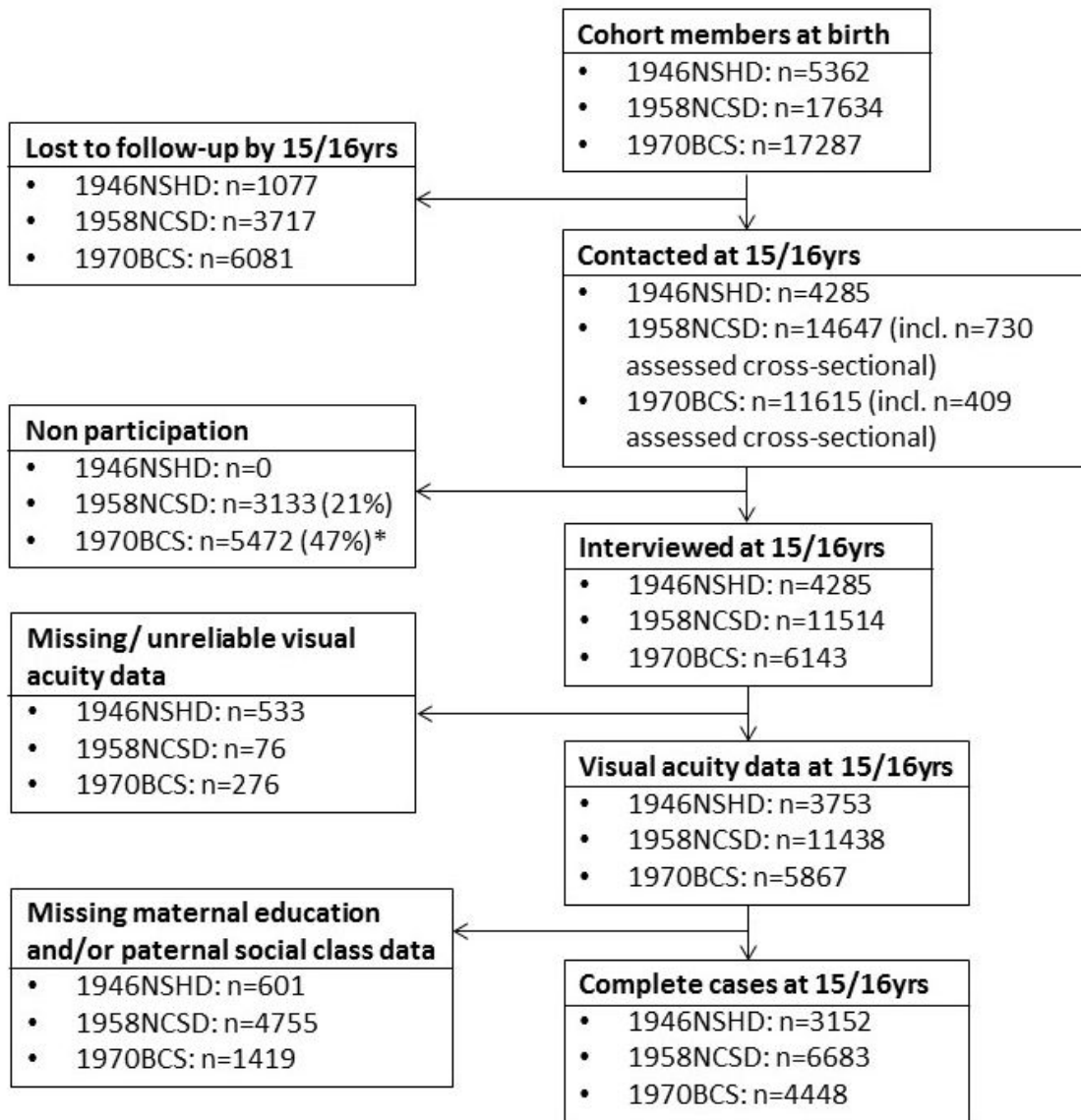# Supplementary Online Content

eFigure1. Flow Chart Indicating Recruitment and Collection of Ophthalmic Data at Age 15/16 Years

in Three UK Birth Cohorts.

eTable 1. Distribution of the Three UK Birth Cohort Members' Baseline Characteristics According to

Their Participating Status.

eTable 2. Distribution of the Three UK Birth Cohort Members' Baseline Characteristics According to

Recording of Valid or Missing Acuity Data.

eTable 3. Distribution of Cohort Member's (CM's) Social Determinants of Health at Birth and Early
Life Across Cohort.

This supplementary material has been provided by the authors to give readers additional information
about their work.

Cohort members at birth
- 1946NSHD: n=5362
- 1958NCSD: n=17634
- 1970BCS: n=17287

Lost to follow-up by 15/16yrs
- 1946NSHD: n=1077
- 1958NCSD: n=3717
- 1970BCS: n=6081

Contacted at 15/16yrs
- 1946NSHD: n=4285
- 1958NCSD: n=14647 (incl. n=730 assessed cross-sectional)
- 1970BCS: n=11615 (incl. n=409 assessed cross-sectional)

Non participation
- 1946NSHD: n=0
- 1958NCSD: n=3133 (21%)
- 1970BCS: n=5472 (47%)*

Interviewed at 15/16yrs
- 1946NSHD: n=4285
- 1958NCSD: n=11514
- 1970BCS: n=6143

Missing/ unreliable visual acuity data
- 1946NSHD: n=533
- 1958NCSD: n=76
- 1970BCS: n=276

Visual acuity data at 15/16yrs
- 1946NSHD: n=3753
- 1958NCSD: n=11438
- 1970BCS: n=5867

Missing maternal education and/or paternal social class data
- 1946NSHD: n=601
- 1958NCSD: n=4755
- 1970BCS: n=1419

Complete cases at 15/16yrs
- 1946NSHD: n=3152
- 1958NCSD: n=6683
- 1970BCS: n=4448

eFigure 1: Flow chart indicating recruitment and collection of ophthalmic data at age 15/16 years in three UK birth cohorts (Plewis I, Calderwood L, Hawkes D, Nathan G. National Child Development Study And 1970 British Cohort Study Technical Report: Changes in the NCDS and BCS70 Populations and Samples over Time. 1st Edition October 2004. Centre for Longitudinal Studies Bedford Group for Lifecourse and Statistical Studies Institute of Education, University of London). * Data collection was performed at 1986 which was a year of industrial action in schools. This is reported to have disrupted the data collection as school medical examinations were given either by community medical officers or school nurses. The medical examination sample is low (53%) and biased towards higher paternal social class and females.

eTable 1: Distribution of the three UK birth cohort members' baseline characteristics according to their participating status.

	1958		1970	
	Non participants	Participants	Non participants	Participants
Sex, n	3139	11514	5748	5867
Male	46 (35; 57)	52 (51; 53)	51 (50; 53)	49 (47; 50)
Female	54 (43; 65)	48 (47; 49)	49 (47; 50)	51 (50; 53)
Maternal education at birth, n	1565	9218	5255	5404
Up to statutory schooling	54 (52; 57)	48 (47; 49)	35 (33; 36)	29 (27; 30)
Stayed in FTE	44 (41; 46)	49 (48; 50)	60 (59; 61)	64 (63; 65)
Higher (college/univ)	2 (1; 3)	3 (3; 4)	5 (5; 6)	7 (7; 8)
Paternal social class at childhood, n	1860	8097	4295	4768
Unskilled	25 (23; 27)	23 (22; 24)	18 (17; 20)	17 (16; 18)
Skilled	53 (51; 56)	52 (51; 53)	53 (52; 55)	50 (49; 52)
Professional	22 (20; 24)	24 (23; 25)	28 (27; 30)	33 (31; 34)

eTable 2: Distribution of the three UK birth cohort members' baseline characteristics according to recording of valid or missing acuity data.

	1946		1958		1970	
	Visual acuity data					
	Missing/ inaccurate	Valid	Missing/ inaccurate	Valid	Missing/ inaccurate	Valid
Sex, n	532	3753	76	11438	276	5867
Male	48 (44; 52)	53 (51; 54)	46 (35; 57)	52 (51; 53)	50 (44; 56)	49 (47; 50)
Female	52 (48; 56)	47 (46; 49)	54 (43; 65)	48 (47; 49)	50 (44; 56)	51 (50; 53)
Maternal education at birth, n	424	3376	54	9164	257	5404
Statutory schooling	71 (67; 76)	71 (70; 73)	54 (52; 57)	48 (47; 49)	32 (27; 38)	29 (27; 30)
Extended schooling	28 (23; 32)	28 (27; 30)	44 (41; 46)	49 (48; 50)	64 (58; 70)	64 (63; 65)
Higher education	1 (0; 2)	1 (0; 1)	2 (1; 3)	3 (3; 4)	4 (1; 6)	7 (7; 8)
Paternal social class at childhood, n	425	3421	44	8053	211	4768
Unskilled	25 (21; 29)	25 (24; 27)	25 (23; 27)	23 (22; 24)	19 (14; 24)	17 (16; 18)
Skilled	49 (44; 54)	49 (48; 51)	53 (51; 56)	52 (51; 53)	55 (48; 62)	50 (49; 52)

Professional	26 (22; 30)	25 (24; 27)	22 (20; 24)	24 (23; 25)	26 (20; 32)	33 (31; 34)

eTable 3: Distribution of cohort member's (CM's) social determinants of health at birth and early life across cohort.

	1946NSHD	1958NCSD	1970BCS
Age CM's mum left FTE, n	3376	9164	5404
Up to statutory schooling	71 (70; 73)	48 (47; 49)	29 (27; 30)
Extended schooling	28 (27; 30)	49 (48; 50)	64 (63; 65)
Higher education	0.71 (0.43; 0.99)	3.3 (3.0; 3.7)	7.3 (6.6; 8.0)
CM's father social class, n	3421	8053	4768
Unskilled/ semi-skilled	25 (24; 27)	23 (22; 24)	17 (16; 18)
Skilled	49 (48; 51)	52 (51; 54)	50 (49; 52)
Professional	25 (24; 27)	24 (23; 25)	33 (31; 34)

Footnote: Results are shown as % (95% CI).