

Supplementary Table 1

Comparison of VLBW survivors assessed at age 27-29 years with those not assessed on measures of birth characteristics and neurosensory disability at age 7-8.

Measure	Assessed (N=250)	Not Assessed (N=73)	p
Birthweight, mean (SD), grams	1134 (236)	1207 (228)	0.02
<1000g, %	27.2	21.9	NS
Gestation, mean (SD), weeks	29.2 (2.5)	29.5 (2.4)	NS
% <28 weeks	26.0	20.6	NS
SGA, %	30.0	24.7	NS
Maternal age at birth, mean (SD)	27.1 (10.5)	27.2 (13.5)	NS
Male, %	42.7	61.6	0.005
Maori ethnicity, %	26.0	22.2	NS
Admitted to Level III NICU birth, %	72.0	78.1	NS
Antenatal steroids, %	56.4	60.3	NS
CLD, %	37.2	31.5	NS
ROP, %	21.6	12.3	NS
Neurosensory disability at 7-8 years, %			
Any disability	24.8	25.9	NS
Moderate/severe disability	8.7	11.1	NS

Supplementary Table 2**a) Distribution of visual acuity (logMAR) in VLBW and Controls by better and worse eye**

Measure	No. of eyes	logMAR				p
		≤0 N (%)	0.01-0.30 N (%)	>0.30 N (%)	Blind N (%)	
Better eye						
VLBW	229	154 (67.3)	58 (25.3)	14 (6.1)	3 (1.3)	0.001 ¹
Control	100	87 (87.0)	13 (13.0)	0 (0.0)	0 (0.0)	
Worse eye						
VLBW	229	96 (41.9)	95 (41.5)	32 (14.0)	6 (2.6)	0.001 ¹
Control	100	60 (60.0)	37 (37.0)	3 (3.0)	0 (0.0)	
All eyes						
VLBW	458	250 (54.6)	153 (33.4)	46 (10.0)	9 (2.0)	<0.001 ²
Control	200	147 (73.5)	50 (25.0)	3 (1.5)	0 (0.0)	

¹ chi square test of independence² multinomial logit with observations clustered by participant id**b) Level of myopia in VLBW and Controls by better and worse eye**

Measure	No. of eyes ¹	Myopia (diopters)				p
		<0.5 N (%)	0.5-2.0 N (%)	2.01-5.0 N (%)	>5.0 N (%)	
Better eye						
VLBW	225	112 (49.8)	83 (36.9)	22 (9.8)	8 (3.6)	NS ²
Control	100	56 (56.0)	32 (32.0)	11 (11.0)	1 (1.0)	
Worse eye						
VLBW	225	79 (35.1)	102 (45.7)	33 (14.7)	11 (4.9)	NS ²
Control	100	39 (39.0)	47 (47.0)	13 (13.0)	1 (1.0)	
All eyes						
VLBW	444	189 (42.6)	183 (41.2)	55 (12.4)	17 (3.8)	NS ³
Control	200	95 (47.5)	79 (39.5)	24 (12.0)	2 (1.0)	

¹ Excludes three VLBW with bilateral blindness and one who could not be assessed on autorefractometry. A further six VLBW had only one eye assessed on autorefractometry: for these participants assessments of better/worse eye based on the one eye assessed.² chi square test of independence³ multinomial logit with observations clustered by participant id

c) Distribution of visual acuity (logMAR) by birthweight (VLBW Cohort only), all eyes

Birthweight	No. of eyes	logMAR			
		≤ 0 N (%)	0.01-0.30 N (%)	>0.30 N (%)	Blind N (%)
<1000g	128	61 (47.7)	40 (31.3)	19 (14.8)	8 (6.3)
≥ 1000 g	330	189 (57.3)	113 (34.2)	27 (8.2)	1 (0.3)

p=0.01 multinomial logit with observations clustered by participant id.

d) Level of myopia by birthweight (VLBW Cohort only), all eyes

Birthweight	No. of eyes	Myopia (diopters)			
		<0.5 N (%)	0.5-2.0 N (%)	2.01-5.0 N (%)	>5.0 N (%)
<1000g	119	50 (42.0)	45 (37.8)	14 (11.8)	10 (8.4)
≥ 1000 g	325	139 (42.8)	138 (42.5)	41 (12.6)	7 (2.2)

p=0.20 multinomial logit with observations clustered by participant id.

e) Distribution of visual acuity (logMAR) by highest stage ROP (VLBW Cohort only), all eyes

ROP Stage	No. of eyes	logMAR			
		≤ 0 N (%)	0.01-0.30 N (%)	>0.30 N (%)	Blind N (%)
None	368	205 (55.7)	128 (34.8)	34 (9.2)	1 (0.3)
Stage 1	40	26 (65.0)	11 (27.5)	3 (7.5)	-
Stage 2	40	16 (40.0)	13 (32.5)	9 (22.5)	2 (5.0)
Stage 3	4	3 (75.0)	1 (25.0)	-	-
Stage 4	6	-	-	-	6 (100)

p<0.001 multinomial logit with observations clustered by participant id.

f) Level of myopia by highest stage ROP (VLBW Cohort only), all eyes

ROP Stage	No. of eyes ¹	Myopia (diopters)			
		<0.5 N (%)	0.5-2.0 N (%)	2.01-5.0 N (%)	>5.0 N (%)
None	362	147 (40.6)	161 (44.5)	47 (13.0)	7 (1.9)
Stage 1	40	25 (62.5)	8 (20.0)	6 (15.0)	1 (2.5)
Stage 2	38	16 (42.1)	11 (29.0)	2 (5.3)	9 (23.7)
Stage 3	4	1 (25.0)	3 (75.0)	-	-

¹ Excludes 14 eyes not assessed on autorefractometry, including three participants with bilateral blindness.

p<0.001 multinomial logit with observations clustered by participant id.