

Supplemental results

The BASELINE-stream 2 (443 postnatally recruited babies) sub-group was compared separately with the CORAL cohort (n= 309), as they were similar for proportion of first-time mothers with 44.7% (138/309) of CORAL babies first-born compared to 40.7% (178/440) of BASELINE-stream 2 babies (p=0.26). There were differences noted between the cohorts in terms of average gestational age, average birth weight, proportion of mothers educated to or attending tertiary level education and assessment age [see Supplemental Table 2]. Similar to the analysis of the full cohort, log-binomial regression adjusted for differences in baseline demographics showed a difference in having one definite and meaningful word (RR 0.86; 95% CI: 0.79-0.93), pointing (RR 0.92; 95% CI: 0.86-0.96), waving bye-bye (RR 0.95; 95% CI: 0.89-0.99) and crawling (RR 1.06; 95% CI: 1.02-1.10) between the CORAL birth cohort and the BASELINE-stream 2 cohort. More CORAL cohort babies were able to crawl, fewer CORAL babies had one definite and meaningful word, could point and wave bye-bye. There was no evidence of any other differences between the groups [see Supplemental Table 3].

Supplemental Table 1. Attainment of each skill stratified by age at questionnaire completion in both cohorts to look at how percentage of those who had not achieved each milestone varied with age (completed the questionnaire when baby aged 360-379 days, and then 380 days or older).

CORAL 309	360-379 days old Percent not doing	380+ Percent not doing	Frequencies
Stand	42.7% → (32/75)	31% 70/226)	0.73
Side step	14.7% → (11/75)	9.3% (21/226)	0.63
Crawl	2.7% (2/75)	3.1% (7/226)	1.2
Stack bricks	34.7% → (26/75)	25.6% (60/226)	0.73
Pincer	0% → (0/75)	1% (2/226)	1
Name	1.3% → (1/75)	1% (3/226)	1
Word meaning	25.3%	25.7%	1
Point	18.7%	15.9%	0.85
Wave BB	10.7%	12.8%	1.2

BASELINE 1629	360-379 days old Percent not doing	380+ Percent not doing	Frequencies
Stand	39.7% → (318/801)	27.9% (192/688)	0.7
Side step	13.8% → (111/801)	10.4% (72/688)	0.75
Crawl	10% (8/801)	7.1% (49/688)	0.7
Stack bricks	23.8% → (191/801)	20.2% (139/688)	0.85
Pincer	0.4% → (3/801)	0.4% (3/688)	1
Name	1% → (9/801)	1.2% (8/688)	1.2
Word meaning	11.7% (94/801)	10% (69/688)	0.85
Point	9.4% (76/801)	5.2% (36/688)	0.55
Wave BB	7% (56/801)	5.3% (37/688)	0.76

Supplemental Table 2. Demographic comparisons between the CORAL (n=309) and BASELINE-stream 2 (n=443; postnatally recruited mothers of term babies) cohort.

<u>Demographic</u>	<u>CORAL Cohort</u> n=309	<u>BASELINE Cohort</u> n=443	<u>p-value*</u>
Gestational Age Mean (SD)	39.3 weeks (1.3)	39.6 weeks (1.1)	<0.01
Mean Weight at Birth (SD)	3.5kg (0.5)	3.6kg (0.5)	<0.01
Proportion of Females (n/N)	45.6% (141/309)	48.3% (214/443)	0.50
Proportion of First Born (n/N)	44.7% (138/309)	40.7% (178/440)	0.26
Proportion of Maternal Tertiary Education (n/N)	94.4% (292/309)	85.5% (378/442)	<0.01
Mean Age at Assessment (SD)	400 (24) days	381 (17) days	<0.01

*Proportions test or students t-test as appropriate.

Supplemental Table 3. Adjusted log-binomial regression analysis for skill attainment between the CORAL (n=309) and BASELINE-stream 2 cohort (n=443) that was postnatally recruited from mothers of all parity.

Developmental milestone	CORAL cohort (n=309)	BASELINE cohort – stream 2 (n=443)	Adjusted log-binomial regression models [#] n=714 [†]	Regression diagnostics
	Reached milestone % (n)	Reached milestone % (n)	Relative Risk [95% Confidence interval] P-value [‡]	
Stand alone	Yes: 65.7% (203/309)	Yes: 64.5 (285/443)	1.01 [0.90-1.14] p=0.82	AIC: 1.87 AUC: 0.62
Side steps	Yes: 89.6% (277/309)	Yes: 86.7 (384/443)	1.03 [0.97-1.09] p=0.39	AIC: 2.00 AUC: 0.65
Crawl	Yes: 97.4% (300/308)	Yes: 90.8% (402/443)	1.06 [1.02-1.10] p<0.01*	AIC: 2.01 AUC: 0.68
Stack bricks	Yes: 72.0% (221/307)	Yes: 76.8 (340/443)	0.92 [0.84-1.02] p=0.13	AIC: 1.95 AUC: 0.57
Finger feeds	Yes: 99.0% (306/309)	Yes: 99.3% (440/443)	1.00 [0.99-1.01] p=0.59	AIC: 2.02 AUC: 0.67

Pincer	Yes: 99.7% (307/308)	Yes: 99.5% (442/443)	0.99 [0.99-1.01] p=0.98	AIC: 2.02
Knows name	Yes: 98.7% (305/309)	Yes: 99.1% (439/443)	0.99 [0.98-1.02] p=0.97	AIC: 2.02 AUC: 0.59
One word meaning	Yes: 76.6% (232/303)	Yes: 89.4% (396/443)	0.85 [0.78-0.92] p<0.01*	AIC: 1.98 AUC: 0.69
Points	Yes: 83.8% (258/308)	Yes: 91.2% (404/443)	0.91 [0.86-0.97] p<0.01*	AIC: 2.00 AUC: 0.66
Waves bye-bye	Yes: 87.7% (271/309)	Yes: 93% (412/443)	0.95 [0.90-0.99] p=0.05*	AIC: 2.01 AUC: 0.68

AIC: Akaike Information Criterion; AUC: Area Under the Curve

† Age at assessment was missing for 8 CORAL and 26 BASELINE

‡ Log-binomial regression models for each skill, adjusted for age at assessment in days, gender, gestational age in weeks, birth order (1st or other), and maternal educational attainment.

Results highlighted in bold have statistically significant differences between groups.

Supplemental Figure 1. Flow chart summarizing participant recruitment and flow of the two study cohorts.

