

## Methods and measurement

OP63

### CHILDREN WHO ARE BORN JUST A FEW WEEKS PREMATURE ARE MORE LIKELY TO HAVE POORER SCHOOL PERFORMANCE THAN THOSE BORN AT FULL TERM

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**Objective** While it is well known that extreme prematurity is associated with poorer health and cognitive development, less is known about the effect of being born just a few weeks premature. We compared school performance at age 5 years in children born at full term (39–41 weeks gestation) with those born at varying levels of prematurity, from ‘early term’ (gestational age 37–38 weeks), ‘late preterm’ (gestational age 34–36 weeks) to ‘moderately/very preterm’ (gestational age <34 weeks).

**Design** Population-based cohort (UK Millennium Cohort Study).

**Setting** UK.

**Participants** 7,655 children born in 2000–2001 and attending school in England in 2006.

**Main outcome measure** The main outcome was the Foundation Stage Profile (FSP), a statutory assessment by teachers at the end of the child’s first school year (age 5). The FSP captures the Early Learning Goals as a set of 13 assessment scales (scored from 0 to 9) in 6 domains (Personal, social and emotional development; Communication, language and literacy; Mathematical development; Physical development; Creative development; and Knowledge and understanding of the world). Children who achieve an average of 6 points per scale and a score of at least 6 in the ‘Personal, social and emotional development’ and ‘Communication, language and literacy development’ scales are classified as ‘reaching a good level of overall achievement’; this was the primary outcome.

**Results** 51% of full term children had not reached a good level of overall achievement at the end of their first school year and this increased with prematurity (55% in early term children, 59% in late preterm children, 64% in moderately/very

preterm children). After adjustment for confounders using logistic regression, there were significantly elevated odds even in late preterm (adjusted OR 1.3, 95% CI: 1.1 to 1.7) and early term (adjusted OR 1.2, 95% 1.0, 1.3) children. Although the elevated odds for early term birth were relatively small, early term birth accounted for a similar population attributable fraction (2.7%) as for all the preterm groups combined (gestation 23–36 weeks) (2.6%). The elevated odds associated with late preterm and early term birth were consistent across all areas of learning.

**Conclusions** Late preterm and early term birth are associated with an elevated risk of poorer educational achievement at age 5. Early term children account for a relatively large proportion of all births (21% of all births in our study) and therefore even a small increase in risk will have implications for education planning.