

## Interventions

OP53 SHOULD THE CURRENT NATIONAL CHILD MEASUREMENT PROGRAMME BE EXTENDED TO INCLUDE YOUNGER CHILDREN?

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**Background** In 2016 the National Child Measurement Programme (NCMP), which measures the height and weight of all 4–5 and 10–11 year-olds in England, reported that 19.8% of 11 year-olds were obese. The parliamentary Health Committee report—‘Childhood obesity – brave and bold action’—recommended evaluating extension of NCMP measurements to include younger children. We used longitudinal data, unavailable from NCMP, from the Millennium Cohort Study (MCS) to evaluate two additions to the current NCMP schedule: a preschool measurement at age three years, and a primary school measurement at age seven years. We hypothesised that these would achieve earlier detection of children at risk of obesity at later ages, and that parental concern about their child’s future risk of overweight would be greatest among parents of obese children.

**Methods** MCS children’s heights and weights were measured, and their parents interviewed, at ages three, five, seven and 11 years. We included data for 14 789 singletons (51.0%

boys) seen at age five whose height, weight and BMI values met NCMP criteria. We imputed missing height and weight measurements, calculated BMI and estimated obesity prevalence using UK90 clinical cut-offs, weighted for survey design (Stata: Release 14). We calculated prevalence rate ratios (PRR) to examine associations between parental concern about their child’s future risk of overweight, reported at the age five interview, and child’s obesity at age five years.

**Results** At three, five, seven and 11 years respectively, 1009 (6.6%), 1010 (6.4%), 1153 (7.5%) and 1772 (11.8%) children were obese. A preschool measurement would identify 79.6% (95% CI: 76.3, 82.4) of obese five year-olds as overweight (28.6%) or obese (51.0%) at age three, and an additional primary school measurement 68.1% (64.4, 71.4) of newly obese 11 year-olds (i.e. not obese at age five) as overweight (39.0%) or obese (29.1%) at age seven. At the age five interview, 66.6% (63.1, 69.9) of parents of obese five year-olds reported concern about their child’s future overweight risk compared to 22.3% (21.4, 23.2) of parents of healthy-weight five year-olds (PRR: 2.94; 95% CI: 2.69, 3.20).

**Conclusion** Extension of the current NCMP schedule to include younger children would achieve earlier identification of those at risk of obesity at later ages in primary school. At age five, parental concern about their child’s future overweight risk is strongly related to their child’s current obesity status. Further work is needed to understand parental views about, and to evaluate the cost-effectiveness of, options to extend current programmes.