Early childhood obesity is a growing public health concern in the U.S. that portends escalating rates of chronic disease across lifespan. Clinical practice guidelines for infant feeding call for:
- Exclusive breastfeeding up to 6 months infant age
- No additives such as rice cereal to baby bottle
- Delayed introduction of solid foods until after 4 months

Next Steps in Developing Evidence for Preventive Interventions
- Identify life course obesity predictors that emerge in early critical months of the mother-infant relationship.
- Explore the effects of postpartum depression (PPD) on maternal infant feeding practices.

Data
Data were obtained from the Infant feeding Practices study II, a longitudinal survey administered by the Food and Drug Administration (FDA) and the Centers for Disease Control and Prevention (CDC).

Sample
The sample was comprised of 1447 mother-infant dyads for whom data for the 3 main infant feeding variables, maternal PPD, and infant weight data through 7 months of age were available.

PPD as a Predictor
At 2 months infant age, mothers completed the Edinburgh Postpartum Depression Scale (EPDS). The score of 10 was used as a cutoff for classifying PPD (+/-).

Outcome Variable
Weight gain by 7 months infant age: At the 7-month survey, mothers reported their infant’s weight and age at their most recent doctor’s visit. Weight gain was calculated by subtracting birth weight from the reported weight at 7 months.

Maternal-Infant Characteristics
Selected covariates included maternal age at childbirth, prepregnancy BMI, postpartum smoking status, infant weight data through 7 months, breastfeeding intensity at 2 months infant age, added cereal to baby bottle at age 2 months. A dichotomous variable was created (yes/no).

Adding Cereal to Bottle: Mother’s report of whether or not she added rice cereal or other additive to her baby’s bottle at age 2 months. A dichotomous variable was created (yes/no).

Introduction to Solid Foods: Maternal report of age at which her infant was first exposed to solid foods. This continuous variable was converted to two categories (<20%/≥20%).

Breastfeeding intensity during first 2 months
- Breastfeeding Intensity at 2 months infant age
- Breastfeeding intensity at 2 months infant age, separately for mothers with and without PPD

Breastfeeding intensity: Computed as the average proportion of breast milk to total milk diet (including breast milk, formula, cow’s milk, other milk) that the baby received on a daily basis, as reported by mother when infant was 2 months of age. This continuous variable was converted to two categories (<20%/≥20%).

Adding Cereal to Bottle: Mother’s report of whether or not she added rice cereal or other additive to her baby’s bottle at age 2 months. A dichotomous variable was created (yes/no).

Introduction to Solid Foods: Maternal report of age at which her infant was first exposed to solid foods. This continuous variable was converted to two categories (<20%/≥20%).

Key Findings
- Breastfeeding intensity was associated with low weight gain at 7 months
- Mothers who added baby cereal to baby bottle at age 2 months were more likely to have low weight gain at 7 months
- Infants of mothers with PPD at 2 months postpartum had significantly greater weight gain at 7 months than those whose mothers did not experience PPD.
- Infants of mothers with PPD, increased weight gain at 7 months was associated with low breastfeeding intensity and adding cereal to baby bottle at 2 months infant age.

Conclusion
To reduce the risk for excess infant weight gain that may lead to childhood overweight/obesity, the recommended feeding practices regarding breastfeeding duration and avoiding the addition of cereal to baby bottles should be emphasized in primary care settings with special attention to the infant feeding strategies of mothers who are experiencing PPD.