The National Children’s Study (NCS) Vanguard Study was a pilot study of over 220,000 biological and environmental samples. The NCS Archive data also provide estimates of demographic variation in breast milk expression or pumping – an area of limited documentation (2). The practice of pumping breast milk allows a mother to extend the benefits of breast milk to her infant if she is unable to breastfeed or is separated from her child.

Breast Milk Pumping

Table 2 displays the breast milk pumping status of NCS mothers by race-ethnicity at the 6 month visit (among women who sustained breastfeeding). At the 6 month visit, 1329 women (53%) reported sustaining breastfeeding, while 1176 women (47%) did not. Non-Hispanic White women are more likely to pump (60.66%) compared to Hispanic women (42.68%) and followed by Non-Hispanic Black women (39.34%). There is a significant difference in breast milk pumping among those who sustained breastfeeding compared to those who did not sustain breastfeeding at 6 months (p=0.0007).

METHODS

Data Sources and Study Sample

The NCS Vanguard Study was a prospective, longitudinal cohort of mother-child pairs enrolling in the U.S. Parents of women were recruited to NCS pre-conception, during pregnancy or at childbirth and followed up to 4 years post-birth. The first 6 months of the NCS included a weight loss intervention, and concerning data were collected on: (i) socio-demographic characteristics, (ii) infant feeding practices, (iii) breastfeeding initiation and duration, (iv) race-ethnicity, (v) breastfeeding behavior, and (vi) nutritional intake. A subsample of infants was also collected breast milk samples for laboratory analysis. The NCS Archive can provide access to these rich data. Additionally, the NCS Archive Sample Repository can provide breast milk samples for laboratory analysis.

The NCS Archive also provides access to the NCS Archive data to researchers. The NCS Archive data and samples are provided for research purposes with detailed NCS data. Additionally, the NCS Archive Sample Repository can provide breast milk samples for laboratory analysis.

Statistical Analysis

Descriptive analyses were performed using SAS Version 9.4 (SAS Institute, Cary, NC). Differences in categorical variables were analyzed using Pearson chi-square tests with 5% level of significance (FDR corrected) with CLUSTScopy. Sample weights were not used in the analysis due to unavailability of weights with the NCS Vanguard study sample. Graphs were prepared using R 3.4.4 (RStudio, Inc., Boston, MA).

RESULTS

Breast Milk Pumping

Table 1. Demographic Characteristics of NCS Mothers by Breastfeeding Status at 6-Month Visit

Table 2. Breast Milk Pumping Status by Race-Ethnicity of NCS Mothers at 6-Month Visit

REFERENCES


2. The Prevalence of Milk Expression and Associated Factors, 2008, Judith Labiner-Wolfe, Sara B. Fein, Jennifer Gostout, J. D. Stein, Kenneth Cutler, Pamela A. Houston and Leon较

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CONCLUSIONS

The National Children’s Study (NCS), a prospective study of children and mothers covering the prenatal, perinatal, and early childhood periods, provides a unique opportunity to collect detailed NCS data. Additionally, the NCS Archive Sample Repository can provide breast milk samples for laboratory analysis.