**Comparison of Routinely Collected Perinatal Electronic Health Data with Longitudinal Clinical Research Data from the Breastfeeding and Early Child (BEACH) study**

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**BACKGROUND**: Breastfeeding populations have typically been difficult to recruit and study in epidemiological studies. Electronic health records (EHRs) have created new opportunities for researchers to collect clinical data on research participants using routinely collected EHR data. The objective of this study is to develop and “easy-to-understand” protocol for EHR data extraction and test whether data extracted from EHRs was of comparable quality and accuracy as epidemiological data collected during study visit.

**METHODS**: This study used longitudinal data obtained from the Breastfeeding and Early Child (BEACH) study and perinatal EPIC EHR data collected from UFHealth, a single academic medical center. We evaluated measures of maternal pre-pregnant body mass index using routine prenatal obstetric visits and data collected by trained research staff in the Clinical Research Center during 3rd trimester BEACH study visits. We developed an “easy-to-understand” protocol and stored data in Redcap.

**RESULTS**: We were successful in developing a Redcap project for use in clinical and lab data extraction of participants. Three separate Redcap Instruments were created to collect specific sets of data about the subjects. We collected data on 50 participants enrolled in the BEACH study. The protocol was developed and tested across multiple team members. We found that once team members were familiar with the electronic health record, researchers were able to easily extract data into the Redcap database which facilitates further analysis of the study data.

**CONCLUSION**: In conclusion, our study in a forearmed population of breastfeeding women reveled that the electronic health record can be a useful source of data extraction to allow better analysis of results. Future directions would include directly querying EPIC for the data endpoints that had to be manually entered in a separate database in our study. Direct EHR query may be the most efficient way to collect subject’s metrics and study endpoints in the future.