George, E. K. (2022). Birth center breastfeeding rates: A literature review. *MCN The American Journal of Maternal Child Nursing, 47*(6), published ahead of print July 2022

**Table 3 Data Extraction of Articles Included for Review**

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| --- | --- | --- | --- | --- |
| **Primary Author & Publication Year** | **Study Design & Purpose** | **Data Source, Date Timeframe & Setting** | **Sample Size & Participant Characteristics** | **Reported Breastfeeding Rates (%)** |
| Alliman (2019) | Secondary data analysis  To describe core perinatal outcomes and compare to national data benchmarks among people at similar low perinatal risk | American Association of Birth Centers (AABC) Perinatal Data Registry (PDR), 2013-2017, 19 states | 6424 people who received care at 44 AABC birth center sites in the Strong Start program  White: 2362 (56.2)  Hispanic: 1169 (23.2)  Non-Hispanic Black: 764 (11.9)  Asian/Pacific Islander: 65 (1.0)  American Indian/Alaskan Native: 94 (1.5)  2797 (43.5%) gave birth in birth centers  Breastfeeding data not specifically stratified by location of birth | Total sample who exclusively breastfed at discharge\*  AABC sample: 85.0  National sample: 41.5  Total sample with any breastfeeding at discharge\*:  AABC sample: 92.9  National sample: 83.1  Total sample with exclusive breastfeeding at 1 month postpartum:  AABC sample: 65.7  National sample: 59.1  Total sample with any breastfeeding at 1 month postpartum:  AABC sample: 88.1  National sample: 79.0  Ever breastfed:  *All races/ethnicities*  AABC sample: 92.2  National sample: 83.2  *White, non-Hispanic*  AABC sample: 91.0  National sample: 85.9  *Hispanic*  AABC sample: 91.2 National sample: 84.6  *Black, non-Hispanic*  AABC sample: 89.1  National sample: 69.4 |
| Jolles (2017) | Secondary data analysis  To describe core perinatal outcomes and compare to national data benchmarks among people at similar low perinatal risk | AABC PDR, 2012-2014, 21 states | 3136 people who received care at 45 AABC birth center sites in the Strong Start program  White: 2054 (65.5)  Hispanic: 684 (21.7)  Non-Hispanic Black: 240 (7.7)  Asian/Pacific Islander: 30 (0.9)  American Indian/Alaskan Native: 48 (1.5)  1409 (67.7) gave birth in birth centers  Breastfeeding data not specifically stratified by location of birth | Total sample who exclusively breastfed at discharge\*  AABC total sample: 92.7  AABC low medical risk: 93.3  National sample: 41.5  Total sample, ever breastfed:  AABC total sample: 95.3  AABC low medical risk: 96.1  National sample: 79.2  Breastfeeding intention at first prenatal visit:  AABC low medical risk: 95.9  Actual exclusive breastfeeding at discharge\*: 93.3 |
| Jolles (2020) | Secondary data analysis  To explore compare rural and urban maternity care | AABC PDR, 2012-2020, national sample (number of states not specified) | 88574 people who gave birth at 82 AABC sites  White: 76.4  Hispanic: 8.0  Non-Hispanic Black: 8.8  60.4% gave birth in birth centers  Breastfeeding data not specifically stratified by location of birth or race/ethnicity | Exclusive breastfeeding at discharge\*: 94.6 |
| MacDorman (2016) | Secondary data analysis  To examine trends in out-of- hospital births, risk profiles, and access to options | National birth certificate data, 2004-2014 | 59,674 people who had birth in out-of-hospital settings in 2014  Race/ethnicity data not reported  Birth center births: 18,219 | Breastfeeding initiation rate  Birth centers: 97.8  Home: 97.8  Hospitals: 80.8 |
| MacDorman (2019) | Secondary data analysis  To examine trends in out-of- hospital births, risk profiles, and access to options | National birth certificate data, 2004-2017 | 62,228 people who had birth in out-of-hospital settings in 2017  Race/ethnicity data not reported  Birth center births: 19,878 | Breastfeeding initiation rate  Birth centers: 98.1  Home: 97.9  Hospitals: 82.0 |
| Nethery (2021) | Retrospective cohort study  To examine maternal and perinatal health outcomes between births at home and in birth centers | Obstetrical Care Outcomes Program Data Set, 2015-2020, Washington State | 10609 people who planned birth center or home births  6265 planned birth center births  Non-Hispanic White  Planned birth centers: 82.4  Planned home birth: 85.9  Hispanic or Latinx  Planned birth centers: 6.0  Planned home birth: 4.8  Non-Hispanic Black  Planned birth centers: 1.8  Planned home birth: 1.3  Asian/Pacific-Islander  Planned birth centers: 3.5  Planned home birth: 2.8  Native American/Native  Alaskan:  Planned birth centers: 1.0  Planned home birth: 0.3  Other or mixed race  Planned birth centers: 5.2  Planned home birth: 4.9  Breastfeeding data not specifically stratified by location of birth or race/ethnicity | Exclusive breastfeeding at 6 weeks postpartum: 93.0 |
| O’Hara (2013) | Retrospective cohort study  To compare outcomes at physician- led, birthing center to a traditional hospital labor and delivery service | Electronic medical records, 1998-2005, Wichita, KS | 32174 singleton births  Birth center: 14326 births Hospital: 17838 births  White  Birth Center: 77.6  Hospital: 67.0  Black  Birth Center: 6.8  Hospital: 9.0  Hispanic  Birth Center: 9.3  Hospital: 19.8  Asian  Birth Center: 4.3  Hospital: 2.6  Other  Birth Center: 2.0  Hospital: 1.6  Breastfeeding data not specifically stratified by location of birth or race/ethnicity | Breastfeeding initiation rate  Birth center: 72.8  Hospital: 53.7 |
| Perdion (2013) | Secondary data analysis  To describe outcomes at a hospital-based, midwifery led birth center | Electronic medical records, 2012, San Diego, CA | 4168 people who gave birth in a birth center with Baby-Friendly designation  White, Non-Hispanic: 50.3  Hispanic: 34.1  Asian/Pacific Islander: 9.2  Black: 2.4 Other: 4.0 | Exclusive breastfeeding at discharge\*: 99.1 |
| Stapleton (2020) | Secondary data analysis  To describe knowledge, values, and experiences of care | AABC PDR, 2015-2016, 22 states | 553 people who received care at 34 AABC birth center sites in the Strong Start program  White: 74.5 Mixed race: 11.6 Black: 10.7 Unknown or declined to disclose: 3.4  American Indian/Alaskan Native: 0.9  Asian: 0.7 Native Hawaiian/Pacific Islander: 0.2  Hispanic ethnicity: 19.4  54.9% gave birth in birth centers  Breastfeeding data not specifically stratified by location of birth or race/ethnicity | Expressed prenatal intention to breastfeed: 81.7  Breastfeeding initiation: 94.2  Exclusive breastfeeding at discharge: 91.7  Exclusive breastfeeding at 6 weeks postpartum: 78.6  Preference for breastfeeding at the initial visit significantly correlated with breastfeeding on discharge (p= .02) but not significantly related to breastfeeding at 6 weeks postpartum  Prenatal education class attendance was significantly correlated with breastfeeding at discharge (p = .01), but not related to breastfeeding at 6 weeks postpartum |
| Thornton (2017) | Retrospective cohort study  To assess effects of birth centers on cesarean odds among women at low perinatal risk who were admitted in spontaneous labor at birth centers or hospitals | AABC PDR, 2006-2011, 46 states | 11303 women who received prenatal care at 79 freestanding, out-of-hospital birth centers  Birth center births: 8776  Hospital births: 2527  White  Birth center births: 85.35  Hospital births: 74.04  Black  Birth center births: 4.88  Hospital births: 10.88  Asian Pacific Islander:  Birth center births: 2.51  Hospital births: 5.18  Native American:  Birth center births: 0.55  Hospital births: 0.55 | Breastfeeding\*\* at discharge\*:  Birth centers: 94.51  Hospitals: 72.77  Unadjusted OR (95% CI) for probability of breastfeeding at discharge from birth centers compared to hospitals: 15.56  OR (95% CI) by multivariate logistic regression: 10.85  OR by propensity weights: 9.12 |

*Note:* AABC = American Association of Birth Centers. PDR = Perinatal Data Registry. \*discharge time not defined \*\*exclusive

versus any breastfeeding not defined