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 analysisTo 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 programWhite: 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 centersBreastfeeding data not specifically stratified by location of birth | Total sample who exclusively breastfed at discharge\*AABC sample: 85.0National sample: 41.5Total sample with any breastfeeding at discharge\*: AABC sample: 92.9National sample: 83.1Total sample with exclusive breastfeeding at 1 month postpartum:AABC sample: 65.7National sample: 59.1Total sample with any breastfeeding at 1 month postpartum: AABC sample: 88.1National sample: 79.0Ever breastfed:*All races/ethnicities*AABC sample: 92.2National sample: 83.2*White, non-Hispanic*AABC sample: 91.0National sample: 85.9*Hispanic*AABC sample: 91.2National sample: 84.6*Black, non-Hispanic*AABC sample: 89.1National sample: 69.4 |
| Jolles (2017) | Secondary data analysisTo 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 programWhite: 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 centersBreastfeeding data not specifically stratified by location of birth | Total sample who exclusively breastfed at discharge\*AABC total sample: 92.7AABC low medical risk: 93.3National sample: 41.5Total sample, ever breastfed: AABC total sample: 95.3AABC low medical risk: 96.1National sample: 79.2Breastfeeding intention at first prenatal visit:AABC low medical risk: 95.9Actual exclusive breastfeeding at discharge\*: 93.3 |
| Jolles (2020) | Secondary data analysisTo 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 sitesWhite: 76.4 Hispanic: 8.0 Non-Hispanic Black: 8.860.4% gave birth in birth centersBreastfeeding data not specifically stratified by location of birth or race/ethnicity | Exclusive breastfeeding at discharge\*: 94.6 |
| MacDorman (2016) | Secondary data analysisTo 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 2014Race/ethnicity data not reportedBirth center births: 18,219 | Breastfeeding initiation rate Birth centers: 97.8Home: 97.8Hospitals: 80.8 |
| MacDorman (2019) | Secondary data analysisTo 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 2017Race/ethnicity data not reportedBirth center births: 19,878 | Breastfeeding initiation rate Birth centers: 98.1Home: 97.9Hospitals: 82.0 |
| Nethery (2021) | Retrospective cohort studyTo 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 births6265 planned birth center birthsNon-Hispanic White Planned birth centers: 82.4Planned home birth: 85.9Hispanic or LatinxPlanned birth centers: 6.0Planned home birth: 4.8Non-Hispanic BlackPlanned birth centers: 1.8Planned home birth: 1.3Asian/Pacific-IslanderPlanned birth centers: 3.5Planned home birth: 2.8Native American/Native Alaskan:Planned birth centers: 1.0Planned home birth: 0.3Other or mixed racePlanned birth centers: 5.2Planned home birth: 4.9Breastfeeding data not specifically stratified by location of birth or race/ethnicity | Exclusive breastfeeding at 6 weeks postpartum: 93.0 |
| O’Hara (2013) | Retrospective cohort studyTo 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 birthsWhiteBirth Center: 77.6Hospital: 67.0BlackBirth Center: 6.8Hospital: 9.0HispanicBirth Center: 9.3Hospital: 19.8AsianBirth Center: 4.3Hospital: 2.6OtherBirth Center: 2.0Hospital: 1.6Breastfeeding data not specifically stratified by location of birth or race/ethnicity | Breastfeeding initiation rate Birth center: 72.8Hospital: 53.7 |
| Perdion (2013) | Secondary data analysisTo 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 designationWhite, Non-Hispanic: 50.3Hispanic: 34.1Asian/Pacific Islander: 9.2Black: 2.4Other: 4.0 | Exclusive breastfeeding at discharge\*: 99.1 |
| Stapleton (2020) | Secondary data analysisTo 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 programWhite: 74.5Mixed race: 11.6Black: 10.7Unknown or declined to disclose: 3.4American Indian/Alaskan Native: 0.9Asian: 0.7Native Hawaiian/Pacific Islander: 0.2Hispanic ethnicity: 19.4 54.9% gave birth in birth centersBreastfeeding data not specifically stratified by location of birth or race/ethnicity | Expressed prenatal intention to breastfeed: 81.7Breastfeeding initiation: 94.2Exclusive breastfeeding at discharge: 91.7Exclusive breastfeeding at 6 weeks postpartum: 78.6Preference 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 studyTo 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 centersBirth center births: 8776Hospital births: 2527WhiteBirth center births: 85.35Hospital births: 74.04BlackBirth center births: 4.88Hospital births: 10.88Asian Pacific Islander:Birth center births: 2.51Hospital births: 5.18Native American:Birth center births: 0.55Hospital births: 0.55 | Breastfeeding\*\* at discharge\*:Birth centers: 94.51Hospitals: 72.77Unadjusted OR (95% CI) for probability of breastfeeding at discharge from birth centers compared to hospitals: 15.56OR (95% CI) by multivariate logistic regression: 10.85OR 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