State of Alaska Epidemiology Bulletin

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Out-of-Hospital Births in Alaska, 2013–2018

Background

A recent study indicated that out-of-hospital (OOH) births have increased nationally from 0.9% in 2004 to 1.6% in 2017.[1] Women may choose OOH births for many reasons, including feelings of comfort, control, safety, trust, and a desire for fewer medical interventions.[1,2] This *Bulletin* describes Alaska's intended OOH births during 2013–2018.

Methods

We analyzed vital records birth certificate data for in-state births among Alaska residents during 2013–2018. We examined birth attendant and payment source for OOH births that occurred either at home or in a birth center. OOH births were considered to be *intended* if 1) the birth occurred at a birth center, 2) the birth certificate indicated it was an intended home birth, or 3) the birth occurred at a hospital subsequent to the mother being transferred from a birth center or home. Intended OOH and hospital births were compared by maternal and newborn characteristics (but not by health outcomes).

Results

Of the 65,030 in-state births to Alaska residents during 2013–2018, 60,318 (92.8%) occurred in a hospital, 3,420 (5.3%) occurred in a birth center, and 942 (1.4%) occurred in a planned home setting. Births that occurred in clinics, doctors' offices, "other" facilities, and unplanned home births were excluded (n=350, 0.5%). The annual proportion of OOH births in Alaska ranged from a low of 6.3% in 2013 to a high of 7.1% in 2017. Most OOH births were attended by a Certified Direct-Entry Midwife (60.4%) or a Certified Nurse Midwife (31.7%). Common payment sources for OOH births were private insurance (44%), Medicaid (31%) and self-payment (23%).

Intended OOH births were most prevalent among white, college-educated, multiparous women with no previous cesarean birth, and residents of the Matanuska-Susitna region (Table). Compared to multiparous women without a history of cesarean, women giving birth to their first baby (nulliparous) were 4.8 times as likely to transfer to a hospital from an intended OOH birth (27.5% vs. 5.8%; p<0.01). The percentage of cesarean births among nulliparous women with term (≥37 weeks gestation), singleton, vertex fetuses was 9.6% for intended OOH births compared to 20.2% for hospital births (p<0.01). Breastfeeding initiation was higher among intended OOH births than hospital births (98.9% vs. 90.9%; p<0.01).

Discussion

In 2017, the proportion of births that occurred OOH was more than four times higher in Alaska compared to the United States (7.1% vs. 1.6%, respectively). Alaska is one of a small number of states where Medicaid is an accessible payment method for women choosing OOH maternity care, which may contribute to Alaska's high proportion of OOH births.[1] Based on the regional distribution patterns presented here, geographic isolation does not appear to be a driving factor for Alaska's high frequency of OOH births. Low OOH birth rates in the Northern and Southwest Regions may be due in part to limited access to OOH midwifery services and the Alaska system of regionalization, in which women in isolated communities give birth in regional hospitals or Anchorage when higher level care is needed. It is unclear why rates are highest among residents in the Matanuska-Susitna and Southeast regions.

The higher risk of intrapartum transfer among nulliparous women is consistent with national studies of OOH births, which find that the majority of these transfers are for non-emergent reasons and should be considered appropriate escalation of care, rather than an adverse outcome.[3,4] Safer and better care is delivered when OOH providers are integrated into the mainstream system; this may include establishing collaborative agreements with hospitals that empower them to provide timely and seamless transfer of care to the hospital.[1,5-7]

Limitations: First, birth certificate data do not consistently identify intended OOH births, which likely resulted in some under-ascertainment. Second, birth certificates often lack detailed/reliable clinical information, so we did not compare maternal or infant health outcomes by intended place of birth.

Table. Intended Home and Birth Center Births, by Maternal Characteristics, Alaska 2013–2018

Characteristic	% Intended OOH Birth	Prevalence Ratio (95% CI)*
Maternal Race		
Alaska Native	0.7	ref
Asian/Pacific Islander	1.8	**2.6 (2.0, 3.5)**
Black	3.3	**4.8 (3.6, 6.6)**
White	10.9	**16.2 (13.2, 20.3)**
Maternal Education		
< Bachelor's Degree	6.5	ref
≥ Bachelor's Degree	11.4	**1.7 (1.6, 1.8)**
Pregnancy History		
Multiparous, no history of cesarean	9.1	ref
Nulliparous	7.1	**0.8 (0.7, 0.8)**
Multiparous, with history of cesarean	1.0	**0.1 (0.1, 0.1)**
Region of Residence		
Anchorage	6.5	ref
Gulf Coast	6.5	1.0 (0.9, 1.1)
Interior	6.8	1.1 (1.0, 1.1)
Mat-Su	19.4	**3.0 (2.8, 3.2)**
Northern	0.8	**0.1 (0.1, 0.2)**
Southeast	9.9	**1.5 (1.4, 1.7)**
Southwest	0.9	**0.1 (0.1, 0.2)**

**CI = Confidence Interval*

Recommendations

1. Providers should follow national guidelines for improving OOH birth outcomes, including appropriate low-risk patient selection, access to timely transport to hospitals, and staff training in neonatal resuscitation.[6,7]
2. Providers in all settings should seek opportunities to strengthen communication and systems for transfer of care to improve outcomes for women choosing an OOH birth.
3. Hospitals should consider implementation of standardized transfer protocols and protected case reviews with the transferring provider for process improvement.

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