## SCHOOL OF PUBLIC HEALTH

# **Equity Mapping of Lactation Support Resources in Washington State**

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## **Background & Significance**

- Breastfeeding (BF) supports the health of mothers & infants and provides benefits for families, communities, and health systems.<sup>1</sup>
- ❖ Washington (WA) boasts the 2nd highest BF initiation rate in the U.S. at 94%, <sup>2</sup> but rates vary with rates of <90% in several counties.<sup>3</sup>
- ❖ 30% of infants in WA are exclusively BF for at least 6 mo., below the Healthy People 2030 goal of 42%.<sup>4</sup>
- Reasons parents stop nursing include issues with lactation & latching, concerns about infant weight, concerns about medications, unsupportive work & parental leave policies, and lack of social support.<sup>5</sup> → Many of these concerns could be resolved through continuous access to lactation support
- Lactation support resources are not equitably distributed, contributing to disparities in BF rates.

## Objectives

- > To better visualize what lactation services are lacking and where through spatial mapping
- > To describe what is different about underserved areas and identify needs/assets

### Table 1. Types of Lactation Resources

Type (13)		N (%) identified			
Birthing Hospital	+	55 (5%)			
WIC	$\bigcirc$	194 (17%)			
WIC BFPC Programs	*	109 (10%)			
<b>Birthing Centers</b>	<b>♦</b>	6 (1%)			
<b>Lactation Classes</b>	<b>3</b>	22 (2%)			
<b>Community Health Clinics (CHC)</b>	<b></b>	7 (1%)			
Doulas	*	255 (22%)			
Midwives	•	108 (9%)			
<b>Lactation Support Groups</b>	•	30 (3%)			
<b>Local Lactation Coalitions</b>	<b>♦</b>	16 (1%)			
<b>Lactation Support Providers (LSP)</b>	<b>(</b>	108 (9%)			
IBCLCs, Designated BF Experts (DBE)					
Family Services	<b>1</b>	156 (14%)			
Outpatient lactation care	•	33 (3%)			

**Challenge -** LSPs were difficult to identify given that there was no complete, centralized directory of providers in WA.

### Methods

Symbol Legend

- Compiled lactation supports from resource guides, online directories, & outreach
- Geocoded resources onto WA counties & Apple Health regions in **ArcGIS Pro**
- Calculated distance to nearest lactation resource of each type for all zip codes in WA
- Identified whether or not each zip code has access to each resource type within 50 miles
- Stratified by county, region, & **RUCA** (rurality)
- Joined Social Vulnerability Index (SVI) data Developed weighted resource distribution score (RDS) accounting for birth count

Sum of binary access indicators Weighted RDS =  $-* total births \div 100$ 

Maps & Results

Map 1. Location of Lactation Resources in Washington by Type

Map 2. Rural vs. Urban Lactation Resource Density in Washington

Legend

1.000000 - 2.000000

2.000001 - 6.000000

Areas with RUCA

considered rural

RUCA codes <4 are

considered urban.

and those with

codes **≥4** are

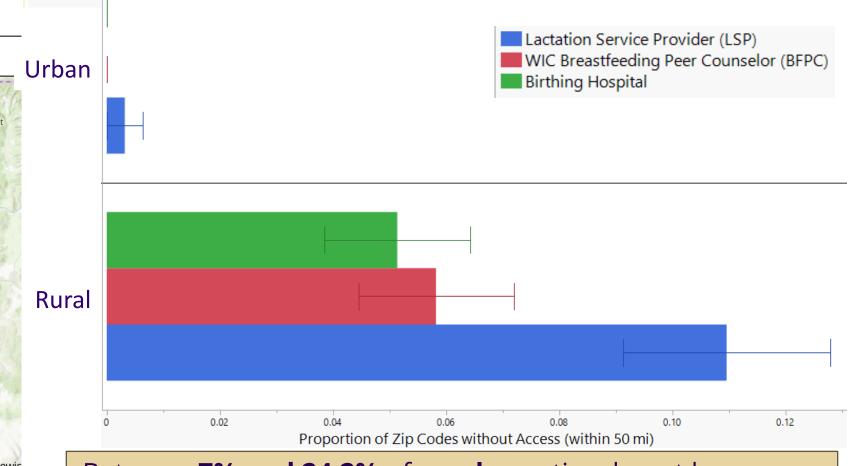
6.000001 - 8.400000

#### **Table 2. Counties Where the Most Births Are Impacted by Lactation Support Gaps (Weighed RDS Ranking)**

County	Apple Health Region	RDS	County Births	Weighted RDS
Clark*	Southwest	3.6	5479	15.3
Spokane	Spokane	3.0	5696	13.2
Benton	Greater Columbia	5.0	2460	9.5
Yakima	Greater Columbia	2.8	3128	6.7
Franklin	Greater Columbia	5.0	1439	5.5
Whatcom	North Sound	2.5	1935	3.7
Grant	North Central	2.6	1382	2.8
Clallam	Salish	7.0	518	2.8

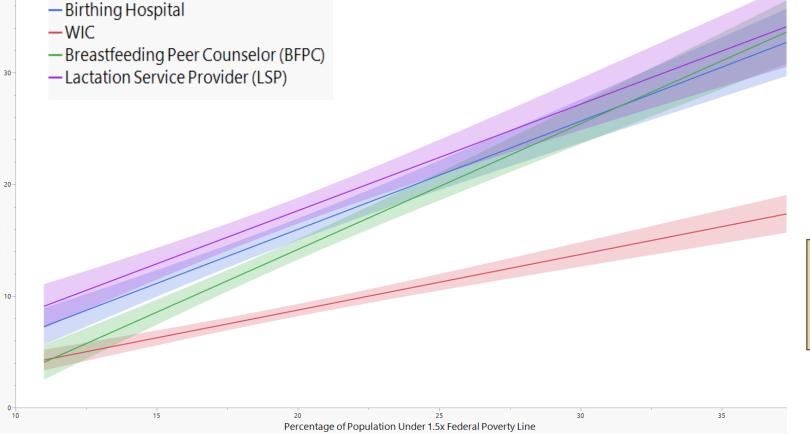
\* Clark County has many resources available within 50 mi in Portland, Oregon that are not included in the spatial analysis

#### Fig 1. Rural vs. Urban Gaps in Access to Lactation Supports within 50 mi



Between 7% and 24.2% of rural counties do not have access to internet, presenting a barrier to telehealth visits.

### Fig 2. Distance to Nearest Lactation Resource by % Population **Under 1.5x Federal Poverty Line**



Low Socioeconomic Status (SES), high % population under 1.5x the federal poverty line, and high RUCA code (rurality) were associated with gaps in access to several of resources on multivariate modeling analyses.

### **Largest Lactation Support Gaps**

Klickitat County – Southwest Region

**79%** of zips lack access to a **Birthing Hospital** 

**71%** of zips lack access to a **Lactation Service Provider** 

**54%** of zips lack access to a **Birth worker** 

13% have no internet access

**Clallam County** – Salish Region

25% of zips lack access to a Birthing Hospital

**63%** of zips lack access to **WIC BF Peer Counselor (BFPC)** 

\*WADOH provided a grant to Makah Birthing House in 2025 to expand access to culturally grounded lactation support

**Lincoln County** – Spokane Region

**29%** of zips lack access to a **Birth worker** 

**50%** of zips lack access to a **Midwife** 

There are no direct lactation supports apart from WIC

Pend Oreille County – Spokane Region

**50%** of zips lack access to a **Lactation Service Provider** 

**66%** of zips lack access to a **Doula** 

**66%** of zips lack access to a **Midwife** 

**Ferry County** – Spokane Region

**66%** of zips lack access to a **Lactation Service Provider** 

24.2% have no internet access

BIPOC communities face additional barriers rooted in structural racism, historical trauma, and systemic inequities. Culturally concordant care can alleviate some barriers.<sup>6</sup>

#### **Recommendations**

- Partner with training programs to fund Rural & BIPOC LSPs
- Create a statewide, free, and public-facing LSP directory
- Organize Rural and BIPOC-focused listening sessions to better understand the unique challenges faced by these communities
- Collaborate with the DOH or HCA in establishing routine statewide assessments of lactation access and disparities
- Identify rural clinics, WIC agencies, or libraries that could host lactation telehealth hubs
- Support efforts to pilot mobile lactation support vans by coordinating routes to areas identified as having LSP gaps.

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- What are the benefits of breastfeeding? | NICHD Eunice Kennedy Shriver National Institute of Child Health and Human
- Development. July 27, 2018. Accessed July 30, 2025. https://www.nichd.nih.gov/health/topics/breastfeeding/conditioninfo/benefits Explore Breastfeeding Initiation in Washington | AHR. Accessed July 29, 2025
- https://www.americashealthrankings.org/explore/measures/breastfeeding\_initiation/WA
- 3. CDC. Breastfeeding Initiation Rates. Breastfeeding Data. March 13, 2025. https://www.cdc.gov/breastfeeding-data/county-
- USBC (US Breastfeeding Committee). Washington Breastfeeding Report, 2023. Published online 2023.
- CDC. About Breastfeeding Data. Breastfeeding Data. July 11, 2025. https://www.cdc.gov/breastfeeding-data/about/index.html Kalluri NS, Padilla-Garza E, Kehoe T, et al. Implementation of a Language-Concordant, Culturally Tailored Inpatient Lactation Program. JAMA Netw Open. 2025;8(3):e250274. doi:10.1001/jamanetworkopen.2025.0274

