# Provider-Based Needs Assessment for Lactation Support in Washington State

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March 15, 2024

**Background**

Breastfeeding provides short and long term health benefits to both the nursing parent and infant.[1] The World Health Organization (WHO) and the American Academy of Pediatrics (AAP) recommend exclusive breastfeeding for the first six months of the infant's life with continued lactation alongside complementary foods for two years or longer.[2,3] Washington state's rate of breastfeeding exclusivity through six months consistently remains above the national average, but falls below the Healthy People 2030 objective of 42.4%.[4–6] Among infants born in 2019, 29.5% breastfed through six months in Washington compared to the national rate of 24.9%.[5] In the Centers for Disease Control (CDC) 2022 Breastfeeding Report Card, two breastfeeding support indicators in Washington were recorded – paid family and medical leave (PFML) for up to 12 weeks and an overall Maternity Practices in Infant Nutrition and Care (mPINC) score four points higher than the national average.[7,8] Parents residing in states with strong PFML policies have a 9% higher likelihood of breastfeeding through six months compared to parents in states with low to no paid leave policies.[9] Additionally in Washington where one third of births are covered by Medicaid, postpartum Medicaid recipients are 32% more likely to breastfeed through six months if they have access to paid leave.[9,10]

Interprofessional collaboration has been shown to be a vital asset in improving lactation care, however differences in organizational structure and communication are a barrier to creating effective interprofessional teams.[11,12] The Washington State Lactation Collaborative (WLC) and its statewide network of 20 local breastfeeding coalitions allow for lactation support providers to organize and promote the use of human milk and lactation on the community level. Further, WLC advocates for best practices to support breastfeeding across healthcare facilities and access to culturally-relevant care to create equitable opportunities for all families in Washington.

While Washington has systems and policies in place that support lactation, these resources are not spread equitably across the state, resulting in lower breastfeeding-related outcomes in underserved regions and populations.[4,13] According to 2022 local Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) agency and census data, Washington counties with higher rates of families in poverty also had lower rates of fully breastfed infants compared to the state average.[14,15] The positive relationship between socioeconomic status and duration of exclusive breastfeeding has long been observed and can be attributed to a family's employment conditions, social support, or access to healthcare.[16,17] Rural counties in Washington often contain medically underserved areas or populations.[18,19] As of 2021, ten counties, all of which were rural, lacked WIC breastfeeding peer counseling programs, indicating a nursing parent's geographic location may undermine their ability to access the breastfeeding discharge support afforded to parents in other regions of the state.[7,18,20,21] Structural racism and a lack of diversity in the lactation space has long hindered parents of color from accessing assistance and receiving culturally supportive care.[22] In a 2022 study of postpartum mothers in the Northwest, the likelihood of Black and Hispanic mothers exclusively breastfeeding was 50% that of white mothers. For American Indian and Alaska Native mothers, the likelihood was 67% .[23]

There is currently a dearth of data on the capacity of communities across Washington state to support lactation. In order to remove structural barriers to breastfeeding, maintain resilient lactation support networks, and provide accessible, culturally appropriate care it is necessary to pinpoint these community-specific assets and needs.

Between January and March, the Washington State Lactation Collaborative (WLC) worked with a University of Washington Masters in Public Health candidate to develop and conduct a needs assessment via an online survey for community and health care providers to identify the perceived capacities, strengths, and barriers of breastfeeding support across communities in Washington state. The survey results and subsequent analysis in this report will be used to inform WLC and local coalitions where to focus resources and to collectively improve lactation support statewide.

## Methods

### Development of the Needs Assessment Questionnaire

An initial review of literature was conducted to identify common themes across needs assessments relating to lactation support; published, peer-reviewed articles and online reports distributed by local and state health departments were among referenced materials.[24–27] A common theme found across evaluated needs assessments was a focus on organizational assets and/or limitations: quantity and quality of services provided, referral processes, staff training, etc. Few questionnaires inquired about community support networks, accessibility of services, or cultural appropriateness of breastfeeding education and resources.

The purpose and framing of questions for the survey was guided by WLC's board. Lactation support healthcare and community workers were the focus for this first survey in order to determine statewide and community-level barriers from a provider perspective. WLC plans to conduct future surveys to gain families' perspectives, which is necessary to obtain the full picture of Washington's breastfeeding support.

A first draft of the survey included 26 required questions that were derived from the themes found in the literature review, adapted from previously published needs assessment questionnaires, and guidance from the WLC board to meet the project's goals. Then, a statement of intent was added to each question to ensure it met the project's purpose. This step narrowed down the focus of the survey and assured it would not become overly burdensome. After edits from the WLC board, 20 required questions (excluding branching logic) for quantitative analysis and three free-response questions for qualitative analysis were approved for the final draft. The survey was then developed in REDCap, and before final distribution, it was tested by WLC board members of different professional backgrounds and locations.[28] Revisions were made to clarify language and correct technical errors.

### Data Collection

The survey went live on February 5, 2024 and an open link was distributed via email to the 209 recipients on the WLC email list and to specific contacts at various organizations with respondents of interest (e.g., hospital IBCLCs, nurse-family partnerships, state and local health

departments, and hospitals). The survey link was also sent to 110 local WIC breastfeeding coordinators through the Washington State Department of Health. All recipients of the survey link were encouraged to forward the survey to lactation support providers in their community or organization. The survey closed on February 21, 2024 in order to allow time for data analysis.

**Data Analysis**

The survey responses were analyzed statewide, stratifying by workplace and geography (e.g. rural, suburban, or urban) and regionally, stratifying by Apple Health managed care regions (**Figure 1)**. As of 2020, Washington's Medicaid program (Apple Health) has been integrated through a single managed care health plan, allowing better access to treatment across ten regions.[29] The process for determining the regions is not publically available, and regional information will be largely used for demographic data. Barriers and capacities were interpreted via the perceived availability of lactation services, accessibility of services, and the policy, systems, and environment of lactation support (relevant federal and state policies, community engagement, referrals).

The data was exported by REDCap and quantitative analyses were performed in Microsoft Excel and Google Sheets.[28,30,31] Quantitative analyses were displayed by frequency and proportions of the total dataset or. Analysis of the qualitative data was conducted in Google Docs via deductive and inductive coding. Codes were grouped by theme, summed and displayed as frequencies (**Appendix 1**).[31]

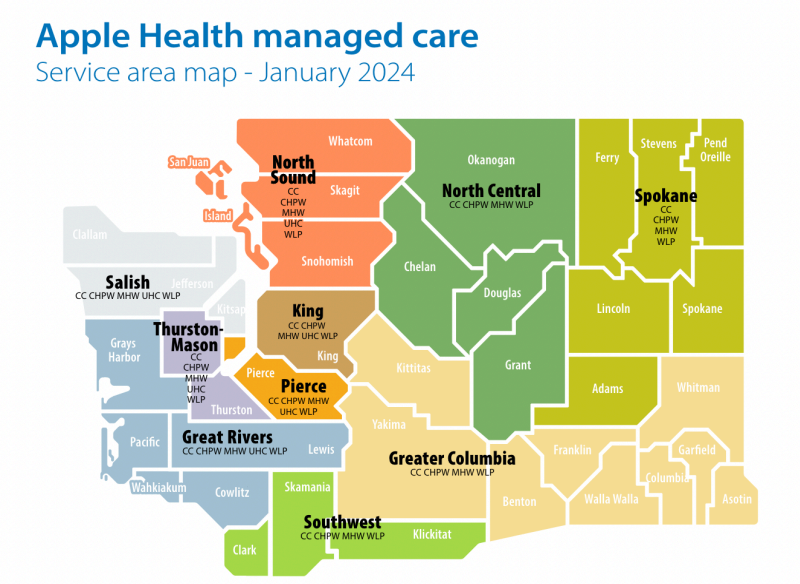



**Figure 1. Washington Apple Health Managed Care Regions 2024**

## Results

Between February 5 and February 21, 2024 192 unique responses were recorded in REDCap. Twenty-eight of Washington's 36 counties were represented across the survey respondents (**Table 1**). Hospital employees had the highest workplace representation (28.1%, n=54) followed by those working in WIC clinics (18.2%, n=35). Respondents were able to select more than one

occupation during the survey; the highest proportion of respondents were International Board Certified Lactation Consultants (IBCLC) (40.1%, n=77) followed by registered nurses (RN) (37.0%, n=71). Around half of respondents were part of a local breastfeeding coalition (Yes, 52.1%; No 47.9%). Every region had at least one respondent and the highest response rate was from the King region, representing around one-third of the responses (33.9%, n=65). Four respondents worked across multiple regions or statewide.

**Table 1. Respondent Demographics**

| **Demographic (n=192)** | **n** (%) |
|---|---|
| Represented Counties | **28** (77.8) |
| <u>Workplace</u> | |
| Birth Center | **1** (0.52) |
| Community Health Clinic | **19** (9.9) |
| Educational/training organization | **8** (4.2) |
| Hospital | **54** (28.1) |
| Lactation private practice | **17** (8.9) |
| Local health department | **24** (12.5) |
| Private business | **1** (0.52) |
| Solo or group medical practice (e.g. pediatrician, OB/GYN, or midwifery) | **15** (7.8) |
| State health department | **3** (1.6) |
| WIC clinic | **35** (18.2) |
| Other | **15** (7.8) |
| <u>Occupation</u> | |
| Certified Lactation Counselor/Certified Lactation Educator (CLC/CLE) | **28** (14.6) |
| Community-Based Peer Counselor | **5** (3.0) |
| Doula | **14** (7.3) |
| International Board Certified Lactation Consultant (IBCLC) | **77** (40.1) |
| Midwife | **8** (4.2) |
| Physician | **4** (2.1) |
| Registered Dietitian (RD) | **26** (13.5) |
| Registered Nurse | **71** (37.0) |
| WIC Employee | **35** (18.2) |
| Other | **29** (15.1) |
| <u>Geographic location</u> | |
| Urban | **76** (39.6) |
| Suburban | **63** (32.8) |
| Rural | **53** (27.6) |
| <u>Apple Health Managed Care Region</u> | |
| Great Rivers | **3** (1.6) |
| Greater Columbia | **25** (13.0) |
| King | **65** (33.9) |
| North Central | **22** (11.5) |
| North Sound | **21** (10.9) |
| Pierce | **15** (7.8) |
| Salish | **12** (6.3) |
| Southwest | **5** (2.6) |

| | |
|---|---|
| Spokane<br>Thurston-Mason<br>Multiple Counties/Statewide | **9** (4.7)<br>**11** (5.7)<br>**4** (2.0) |
| <u>Member of a Local Coalition</u><br>Yes<br>No | <br>**100** (52.1)<br>**92** (47.9) |

**Availability of Lactation Services**

The availability of lactation support services was measured through the frequency of provider responses to a “choose all that apply” survey question. The most common lactation support service provided was lactation education (n=157)(**Figure 2**). Following education, prenatal (n=119) and outpatient lactation care (n=115) were the next most common services. Pump issuance (n=91) was offered by around half of surveyed providers, while supply rentals (n=34) and supply sales (n=20) were much less common. Qualitative themes surrounding the availability of lactation services were derived from the 135 written responses that answered the question: “Are there any services you, your organization, or community is limited in or lacking?”.

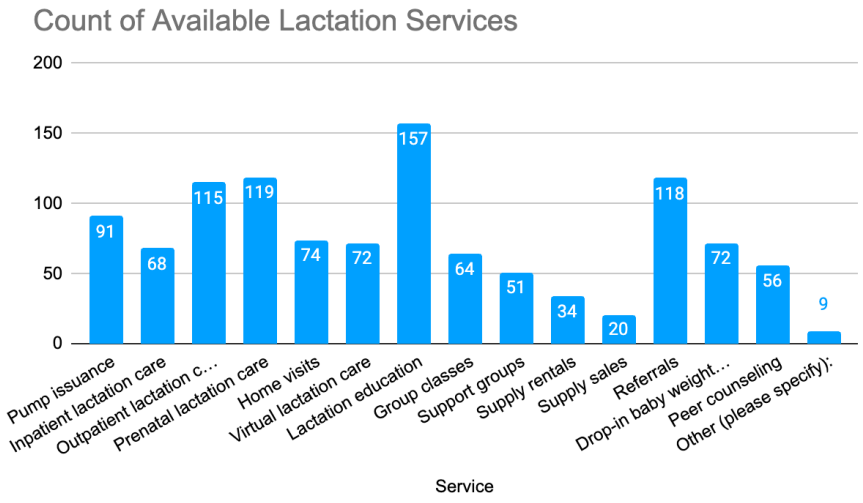



**Figure 2. Available Lactation Support Services in Washington**
Respondents had the ability to choose more than one answer.

<u>Support Groups and Classes</u>

According to the qualitative data, group classes and/or support groups (n=35) were the most frequently cited service lactation providers wished to offer. These services were not common statewide with 33.3% and 26.2% of respondents providing group classes and support groups, respectively (**Figure 2**). Providers additionally wanted to create groups or classes that served specific populations including low- to middle-income parents (n=6) and multilingual or culturally diverse communities (n=6). Stratified by workplace, the highest proportion of providers wanting to offer group classes and/or support groups were those employed by a solo or group medical practice (45.5%, n=5). Currently, 13.3% of providers working in solo or group medical practices offer support groups and 46.7% offer group classes.

Staffing of Lactation Providers

A theme expressed among respondents was an inadequate number of providers trained in lactation care. Twenty-three respondents perceived their organization or community to be lacking lactation professionals, and fifteen specifically stated there was a shortage of IBCLCs. This barrier to adequate lactation support was apparent in the North Sound region with five respondents indicating a need for more IBCLCs, one of which provided further context that in one community there was one IBCLC serving multiple islands and transit between them was unreliable.

Other Limited Services

After support groups and group classes, the three most common lactation services providers perceived to be lacking in Washington were outpatient support (n=11), home visits (n=9), and access to pumps (n=8). Of respondents wanting an increase in the aforementioned services 81.0%, 44.4%, 87.5%, respectively, were employed by hospitals. The availability of these services within hospitals varied, with 64.8% of respondents working at hospitals that offered outpatient support and 42.6% that issued pumps. Only 1 respondent was employed by a hospital that offered home visits, accounting for 1.9% of the demographic.

**Accessibility of Lactation Services**

The accessibility of lactation services across Washington state was measured using the frequency of provider responses to a “choose all that apply” survey question (**Figure 3**). Themes surrounding accessibility were based on the 85 respondents who provided between one and five action items that would increase the accessibility of their organization's training, services, and educational materials.

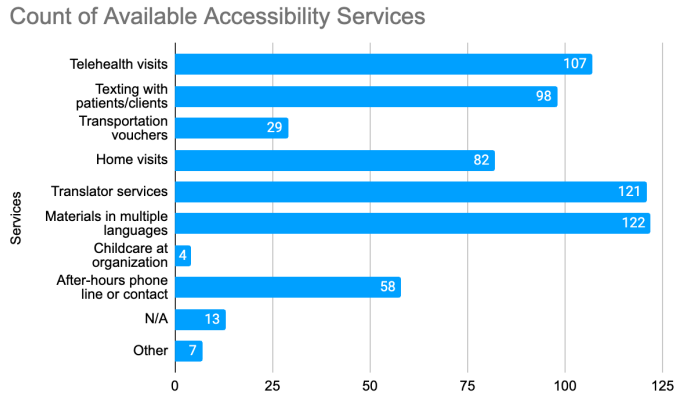



**Figure 3. Count of accessibility services in Washington**
Respondents had the ability to choose more than one answer.

Culturally Relevant Lactation Care

Services to increase the cultural accessibility of lactation care (translator services and materials in multiple languages) were the most frequently provided accessibility service, with 63.0% and 63.5% of providers offering these services respectively (**Figure 3**). However, 24.5% of providers cited a language barrier as a barrier to providing and/or improving lactation services. Translator

services were much less common among rural providers (49.1%, n=26) compared to urban (69.7%, n=53) and suburban (66.7%, n=42) lactation support providers (**Figure 4**).

Despite the majority of providers offering translation services and materials in multiple languages, qualitative data indicated that providers (n=18) believed more culturally relevant materials and training were necessary to increase the accessibility of their services. Respondents mentioned that educational resources were often translated into only the most commonly spoken languages in the area and emphasized the need to expand the number of languages materials are translated to. Several providers cited lack of funds as a barrier to providing translated materials and paperwork and requested increased access to free, multi-language resources through state agencies. Further, respondents (n=13) stressed the need for BIPOC and bilingual representation in the lactation space to adequately and consistently reflect the patient population and to provide culturally tailored care.

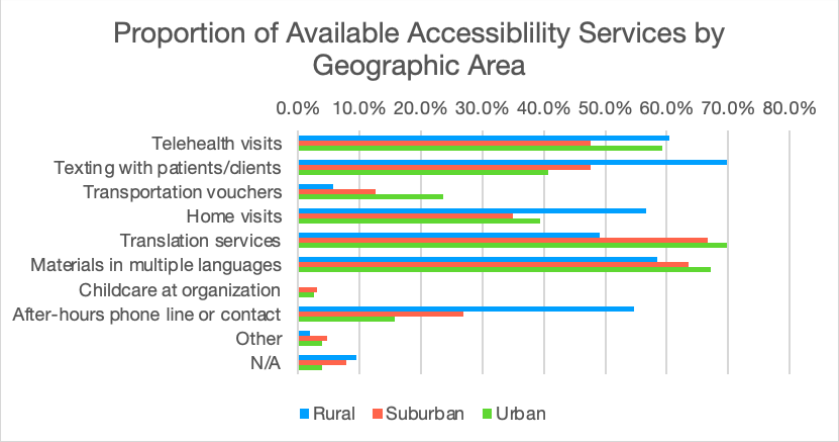



**Figure 4. Proportion of accessibility services stratified by geographic area**
Respondents had the ability to choose more than one answer.

Provider Access

Services to increase access to lactation providers included telehealth (n=107), texting with clients (n=98), home visits (n=82), after-hours phone lines or contact (n=58), and transportation vouchers (n=29) (**Figure 3)**. In rural settings, the proportion of providers offering texting with patients (69.8%), home visits (56.6%), and after-hours phone lines (54.7%) was much higher compared with urban and suburban providers (**Figure 4**). However, transportation vouchers were much more commonly provided by respondents in urban areas compared to rural areas (23.7% versus 5.7%). Virtual access to lactation private practice providers was very common with 94.1% of this demographic offering telehealth or texting with patients (n=16, both).

The greatest number of providers offering after-hours phone lines or contacts were from the North Central region (n=12) and accounted for 54.5% of the region's total respondents. Expanding the hours of lactation support organizations was suggested by six of the 85 respondents as a service needed to increase access to lactation care. The rationale behind expanding hours for lactation support providers was illustrated succinctly by a respondent from Spokane: "Babies don't only exist during business hours".

Financial Access

Financial accessibility of lactation providers and their services was measured through the payment methods accepted by providers (Medicaid, private insurance coverage, out-of-pocket), the availability of free services, and provider perception of their financial accessibility. Statewide, 89 providers offered at least one free lactation service. Suburban area providers were more likely to directly bill patients for their lactation services (30.2%, n=19) and less likely to have free services (33.3%, n=21) compared to rural (17.0%, n=9; 62.3%, n=33) and urban areas (15.8%, n=12; 46.1%, n=35).

Qualitative data indicated that providers wished to expand insurance coverage of lactation services (n=17), with nine providers explicitly stating a need for lactation services to be covered by Medicaid. Expanding insurance coverage was especially important for lactation private practice providers, five of twelve citing it as a service they would like to provide.

Continuing Education

An action item to increase the accessibility not mentioned among the survey questions was continuing lactation education through training updates. Twenty-one respondents felt that they and/or their organization did not receive enough baseline training in lactation care or need continued education. Four of the 21 respondents specifically requested better access to free or low-cost training opportunities. Eight of the respondents wanting lactation training were employed by a hospital, accounting for 36.4% of the hospital respondents who suggested accessibility action items (n=22).

**Policy, Systemic, Environmental Strengths and Barriers**

Adequacy of Federal and State Policies

When asked if current state and federal policies related to lactation and childbirth were adequate in meeting breastfeeding exclusivity recommendations, 74.5% of surveyed providers responded “No” (**Figure 5**). Ninety-five respondents suggested policies they believed would improve exclusivity. The most common policy mentioned was increasing paid family leave (n=61), followed by expanding private insurance and Medicaid coverage or providing universal health care (n=27), and strengthening workplace protections and employer requirements (n=18). Of the respondents who mentioned expanding PFML, 38% specifically stated there should be a minimum of six months paid leave.

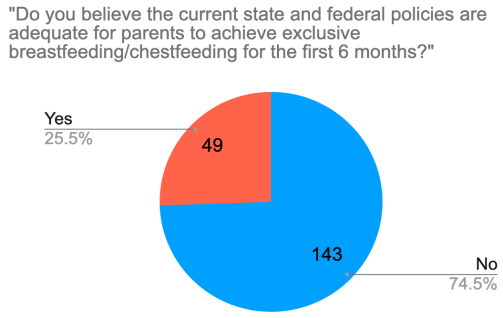



**Figure 5. Distribution of providers who believe federal and state lactation policies are adequate in meeting exclusivity recommendations**

Provider Perception of Barriers to Initiation and Exclusivity

Based on provider perception, the greatest barrier to breastfeeding/chestfeeding initiation and exclusivity is inadequate or improper education of breastfeeding practices (n=138) and early return to work (n=164), respectively (**Figure 6**). Inadequate support was also a major barrier to initiation with 116 of respondents selecting low access to lactation support services and 113 selecting lack of family support systems.

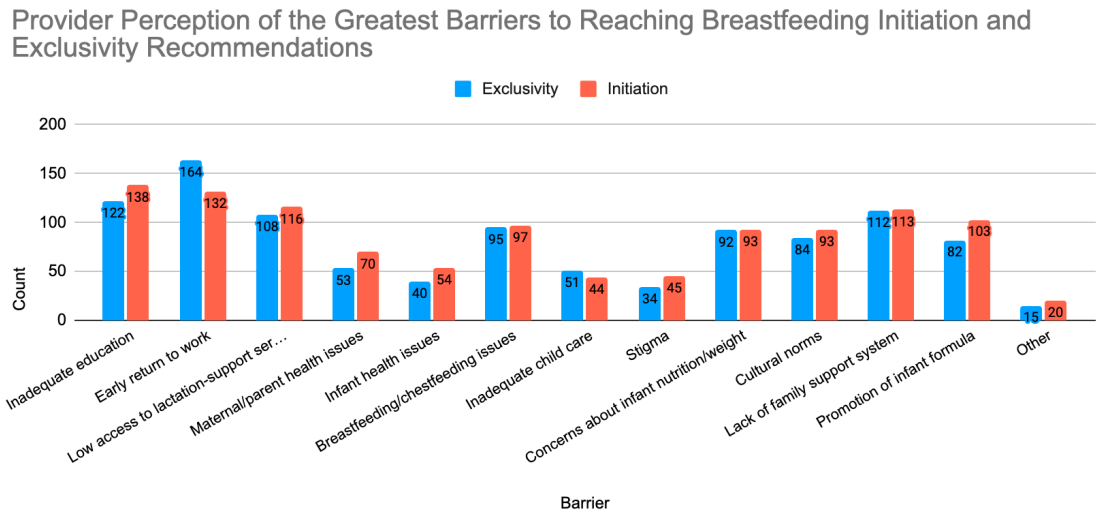



**Figure 6. Frequency of perceived barriers to breastfeeding/chestfeeding initiation and exclusivity recommendations**

Respondents had the ability to choose more than one answer.

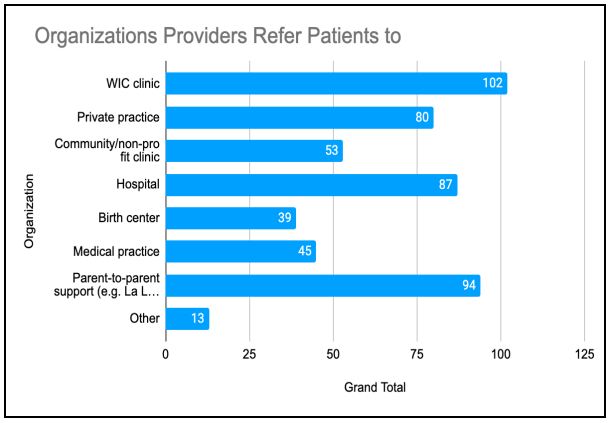
Community Outreach and Engagement

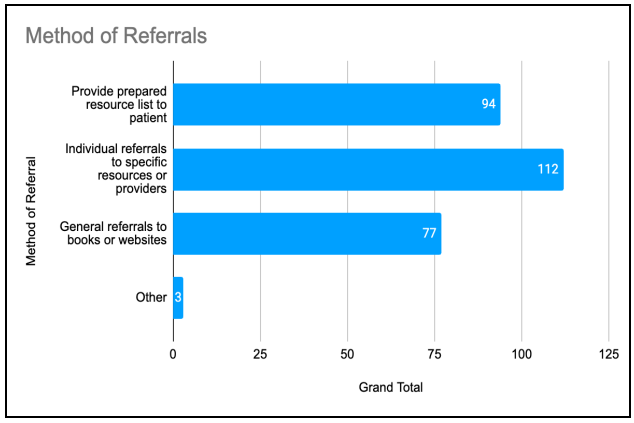
The most common way providers and/or their organizations built community engagement around breastfeeding and lactation in their community was by being a member of a local coalition (n=90). Organizing local support groups and group classes (n=51) and developing breastfeeding/chestfeeding educational materials for the community (n=51) was a common method of community outreach. Twenty-six providers and/or their organizations did not engage in any community outreach activities. Low community engagement was generally not a barrier to service provision statewide, regionally, or by workplace, however 41.5% of rural providers indicated it as a barrier compared to 19.6% of suburban and 16.0% of urban respondents (**Appendix 3**).

Referrals

The lactation support organizations patients were referred to and how these referrals were made are shown in **Figures 7a and 7b**. Referrals were provided by 74.5% of providers and/or their organizations. Referrals for lactation care were most often made to WIC (n=102), followed by parent-to-parent support organizations (e.g., La Leche League), and hospitals (n=87). Individual referrals to specific resources or providers (n=112) was the more common method of referral, followed by providing a prepared resource list (n=94) or general referrals to books and websites (n=77).

Hospitals were most frequently referring patients to WIC clinics (89.2%, n=33), private practices (64.9%, n=24), or other hospitals (40.5%, n=15). Referrals made by hospitals were often made via prepared resource lists provided to patients (81.8%, n=30). Fifty-four percent of providers from hospitals gave individual referrals to providers or resources. WIC clinics were frequently referring patients to hospitals (77.3%, n=17), parent-to-parent support organizations (54.5%, n=12), and other WIC clinics (50.0%, n=11). WIC referrals were most often made via individual referrals to providers or resources (72.7%, n=16).




**Figures 7a and 7b. Count of organizations providers refer to and method of referrals**
Respondents had the ability to choose more than one answer.

## Discussion

Lactation providers across Washington state had the capacity to provide a range of lactation support services and work to ensure these services are accessible. Culturally relevant services were available from the majority of providers and their organizations, but according to provider perception, these services were often inadequate to meet the needs of nursing parents. Statewide, there were several services commonly available to increase access to lactation support providers. In rural settings, more providers offered texting with patients, home visits, and after-hours phone lines compared to urban and suburban providers. The majority of lactation support providers in the state believed there were services that they, their organization, or community was lacking. A major barrier to adequate service provision was limited BIPOC and multilingual representation among lactation providers, specifically IBCLCs. Further, providers want to offer more support groups and classes to their communities and support groups for specific populations are needed. Unfortunately, major barriers identified that inhibit breastfeeding and chestfeeding exclusivity were insufficient PFML policies and low or no Medicaid coverage of lactation care.

Institutionalized and personally-mediated racism have led to bias among healthcare providers, negatively affecting non-white parents who intend to breastfeed.[22,32] While it takes concerted effort from providers and organizations to move beyond the dominant, white cultural norms and provide relevant care, tailoring breastfeeding support to the communities providers serve is achievable, and unsurprisingly effective at meeting patients' needs.[33] In addition to ensuring breastfeeding support is culturally-relevant to all populations in Washington, the lack of representation amongst lactation providers must be addressed as it has been an ongoing issue

in the field. According to a 2019 Academy of Lactation Policy and Practice report, only 10.0% of certified lactation consultants (CLCs) were Black, Afro-Caribbean, or African American despite comprising 13.4% of the United States Population. Only 8.2% of CLCs were Latino or Hispanic-American despite making up 18.3% of the population.[34]

Since the COVID-19 pandemic, accessing healthcare providers remotely has become more widely available.[35] Lactation telehealth was common amongst surveyed providers and has been shown in research as an easy to implement method of education that can expand the number of clients an IBCLC sees.[36] Telehealth is especially valuable to low-income or rural nursing parents who may not have otherwise been able to access professional lactation support.[36,37]

Lactation providers expressed interest in participating in continuing breastfeeding education, viewing training updates as a method to increase the quality of lactation care given by themselves or providers at their organization. Shorter, four-hour lactation education courses to more intensive 45-hour curricula both have been found to positively affect healthcare providers' knowledge and attitudes towards breastfeeding and chestfeeding.[38,39] However, there is a lack of standardization in content and teaching strategy with lactation trainings often missing practical application, leading to differing levels of knowledge and practical competence across providers.[40] It is important that healthcare professionals who interact with nursing parents are consistently given evidence-based training as knowledge retention and breastfeeding attitudes and practices diminish over time.[41]

Group classes and support groups were not offered widely across lactation providers but were the most frequently cited services respondents wished they could provide. Social support after birth has been shown to increase duration and exclusivity of breastfeeding. Support groups led by IBCLCs and lay people alike can have a positive effect on breastfeeding indicators, and these can be further improved with a consistency in schedule. Establishing social support groups led by and tailored to specific communities similarly increases lactation rates among marginalized, nursing people and creates a safe space for communities to support one another in the postpartum period.[42,43] The closure and slow return of group meeting spaces arising from the COVID-19 pandemic has been a barrier to offering support groups and classes.[44] Virtual meetings and online support groups held on social media platforms can mitigate this barrier by reaching large audiences and are generally perceived by breastfeeding mothers as a valuable way to gain peer support.[45]

State and federal policies were seen as a barrier to both providers giving lactation support and to parents meeting national breastfeeding recommendations. As of 2021, Washington Medicaid covers one-per-lifetime electric pumps with prior authorization and hospital-based lactation consultations within DRG/global fee. Individual outpatient and home lactation consultations were not covered unless billed under Maternity Support Services provided by certain licensed providers (e.g., ARNPs, RDs).[46] In the 2023-2024 regular state senate session a bill to allow voluntary certification for lactation consultants was introduced, but did not make it past committee. An amendment of this bill would possibly allow IBCLCs to bill the state Medicaid program for lactation consultations starting in 2025, ensuring better access to lactation care for

Medicaid recipients.[47] Not only does access to lactation support from IBCLCs increase breastfeeding exclusivity, one cost-benefit analysis conducted in North Carolina (where IBCLC lactation consultations are not covered by Medicaid) indicates that Medicaid coverage of these services may reduce healthcare expenditures longterm.[48]

A limitation of this report was the methods used to distribute the survey. The survey was shared with providers as an open link and taken anonymously, meaning anyone with access to the survey link could take the survey despite any relation to lactation support. Respondents had the ability to take the survey more than once and there was the possibility that several employees from a single organization took the survey. These both had the potential to inflate the quantity and proportion of available lactation services within a region or workplace. Another limitation was the deficit or complete absence of data from specific lactation providers and communities in the state. There is no comprehensive list of lactation providers in Washington, and the distribution of the survey likely missed certain providers and demographics. Further, eight counties had no representation in the data, therefore conclusions made about lactation support in various regions were not fully representative.

**Recommendations and Conclusion**

The following are four actionable recommendations WLC can take towards reducing the barriers to care lactation support providers face:

1. Programming for training opportunities accessible to Washington lactation providers.
2. Supporting traineeships, scholarships, or mentorship programming for BIPOC and multilingual IBCLC students.
3. Compiling culturally-tailored breastfeeding resources and materials translated into multiple languages.
4. Advocating for state policies surrounding Medicaid coverage of lactation services or expanding PFML.

Future reports on the state of lactation support in Washington should aim to understand the needs and capacities of families. Nursing parents will likely have different perceptions on the barriers to accessing lactation support and exclusive breastfeeding recommendations. These perspectives are invaluable, and comparing the experiences of families to those of providers can give a broader picture of lactation support statewide and allow for nuance in the approach to mitigate these barriers. Subsequent analyses should also prioritize intersectionality to understand how lactation care needs may compound for someone with several marginalized identities.

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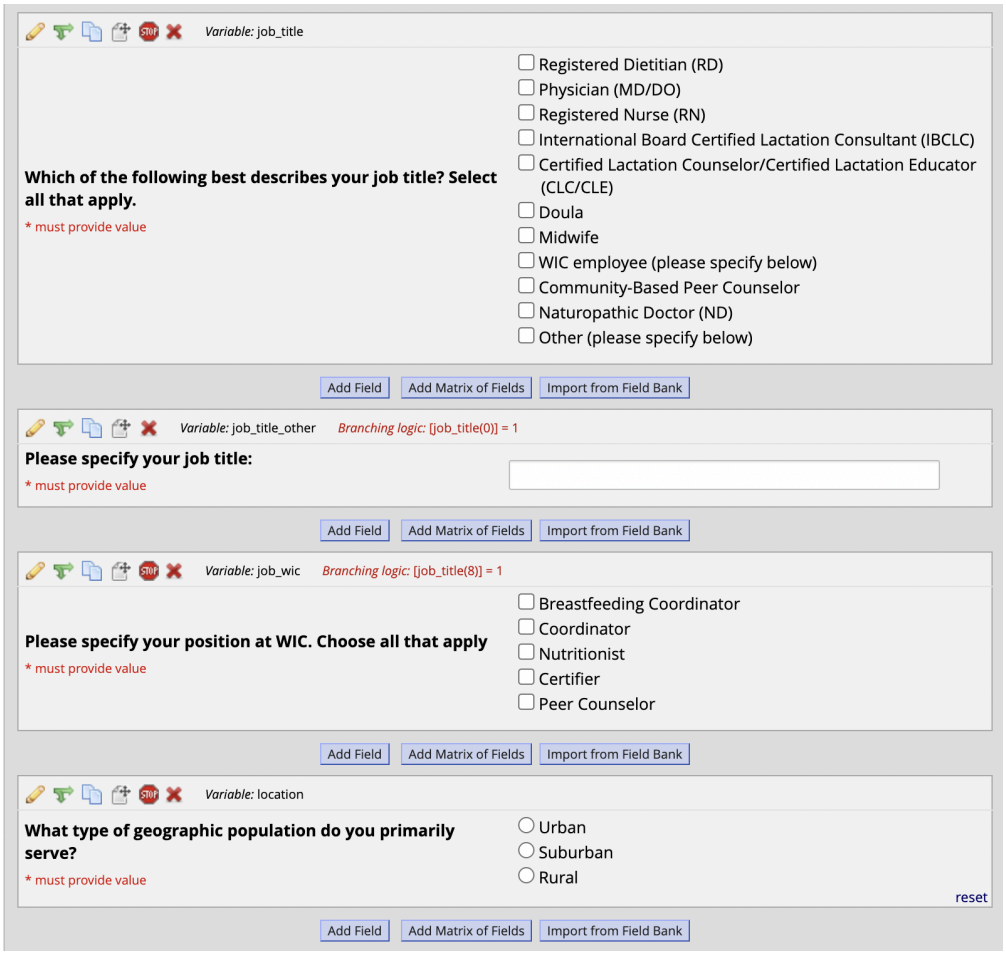
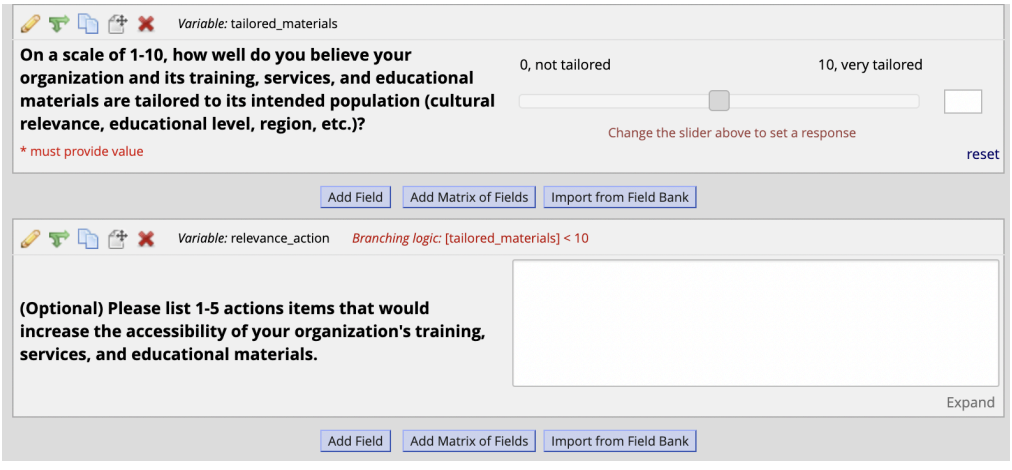
# Appendix

## Appendix 1. Sample Questions from Need Assessment Questionnaire




**Appendix Figure 1. Online Needs Assessment Survey**
Examples of check all that apply and multiple choice questions. Branching logic displayed in red font.



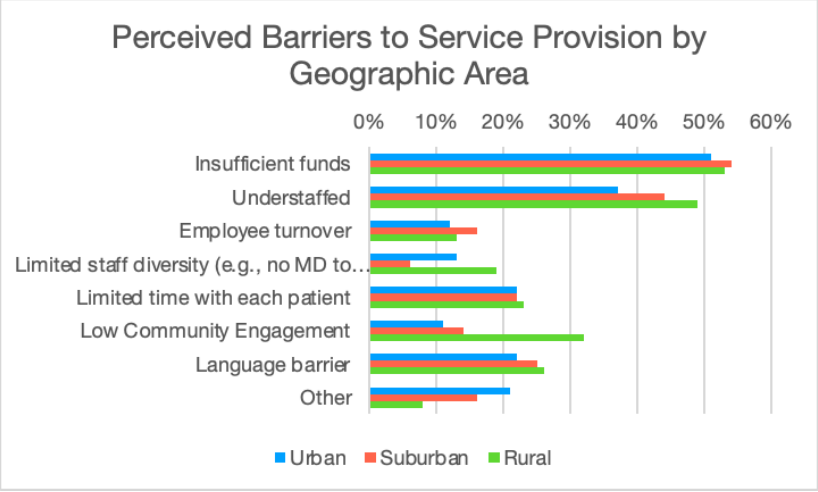

**Appendix Figure 2. Online Needs Assessment Survey**
Example of numerical rating question and free response question for qualitative analysis .

**Appendix 2. Sample Codebook**

| Code | Guideline |
|---|---|
| Insurance/Medicaid (deductive) | Use when respondent references to expanded insurance or medicaid coverage of lactation services. |
| Training/education (inductive) | Use when respondent references a lack of lactation related training or education among themselves, their coworkers, or organization. |

**Appendix 3. Perceived Barriers to Service Delivery**

The greatest perceived barrier to service delivery according to the 135 respondents included was insufficient funds (n=101), followed by being understaffed (n=82). Insufficient funds was the most common barrier to service delivery for all workplaces except solo or group medical practices whose main barrier to service provision was being understaffed. A language barrier was the third most common barrier (n=47) and had the greatest effect on local health departments (47.1%, n=8) and lactation private practices (41.7%, n=7). Limited time with each patient was a barrier among workplaces that provide direct lactation care to patients, including hospitals (42.2%, n=19), community health clinics (40.0%, n=6), WIC clinics (36.8%, n=6), and medical practices (36.4%, n=4). There were few differences between the geographic areas and compared to statewide trends (**Appendix Figure 3**). The only apparent difference was low community engagement was a barrier for rural providers compared to urban and suburban providers.




**Appendix Figure 3. Greatest Barriers to Service Provision Stratified by Geographic Area**