



Since 2010, the Hawai'i State Department of Health's Chronic Disease Prevention and Health Promotion Division (DOH CDPHPD) has implemented the Baby Friendly Hawai'i Project, a statewide effort to provide technical assistance and trainings to hospitals to support them in adopting maternity care practices that are supportive of breastfeeding (Kahin et al., 2017). Through this project DOH CDPHPD worked with the DOH's Family Health Services Division and Centers for Disease Control-assigned epidemiologist, Dr. Donald Hayes, to look at the Hawai'i Newborn Metabolic Screening Program data to monitor changes over time in breastfeeding rates during the hospital stay. Analysis of the Newborn Metabolic Screening Data showed that over time there has

been an increase in early exclusive breastfeeding across the state (see page 2). However, when Dr. Hayes linked the Newborn Metabolic Screening data to birth certificate records, it revealed that despite these overall improvements at the state level, there are some groups that continue to have lower rates of exclusive breastfeeding (by ethnicity/race, maternal age, county of delivery; see pages 2-3). Through this evaluation study, DOH CDPHPD sought to understand if hospital and community providers have noticed similar trends and if so, what they believe needs to be done to begin to close these gaps.

# Hawai'i Breastfeeding Trends at Hospital Discharge

Hawai'i Newborn Metabolic Screening data showed an increase in exclusive breastfeeding rates at hospital discharge from 58.6% in 2008 to 79.1% in 2015.

At the same time, rates of formula only use decreased from 10.1% in 2008 to 4.9% in 2015 and mixed feeding decreased from 31.1% in 2008 to 16.0% in 2015.

Hawai'i Newborn Screening Breastfeeding Rates\*

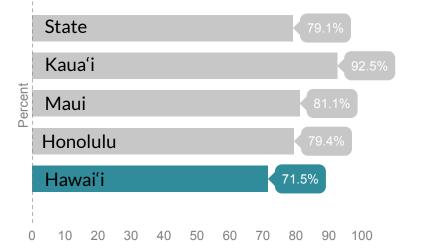


\*Source: Hawai'i Newborn Metabolic Screening data feeding patterns at 24-48 hours post-delivery, 2008-2015, analyzed by D. Hayes. Reprinted with permission.

## Disparities in Exclusive Breastfeeding Rates by County

In 2015, Hawai'i County had the lowest exclusive breastfeeding rates (71.5%) at hospital discharge, while Kaua'i had the highest rates at 92.5%.

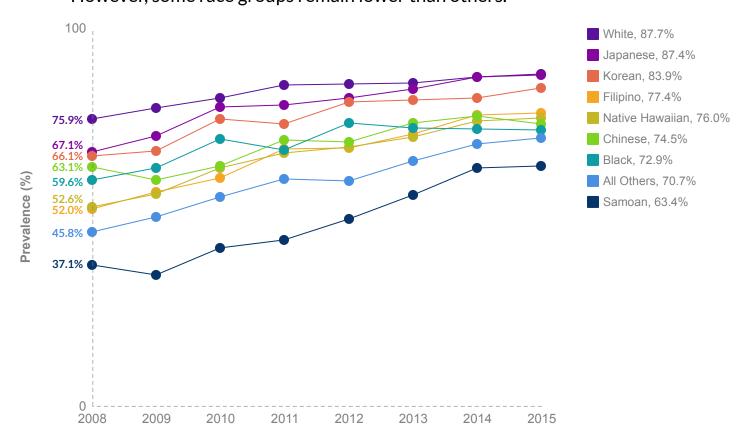
Hawai'i Newborn Screening Exclusive Breastfeeding Rates by County, 2015\*



\*Source: "Maternal Race Trends in Early Infant Feeding Patterns in Hawai'i using Newborn Metabolic Screening-Birth Certificate Linked Data 2008-2015," by D. Hayes, E.O. Boundy, H. Hansen-Smith, and C. Melcher, n.d., manuscript under review.

## Disparities in Exclusive Breastfeeding by Maternal Race/Ethnicity\*

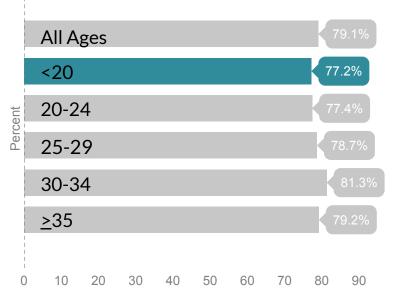
All maternal race groups in Hawai'i have had large relative increases in exclusive breastfeeding at hospital discharge from 2008 to 2015. However, some race groups remain lower than others.



## Disparities in Exclusive Breastfeeding Rates by Maternal Age

In 2015, teen mothers had the lowest exclusive breastfeeding rates (77.2%) at hospital discharge.

### Hawai'i Newborn Exclusive Breastfeeding Rates by Maternal Age, 2015\*



<sup>\*</sup>Source for both charts: "Maternal Race Trends in Early Infant Feeding Patterns in Hawai'i using Newborn Metabolic Screening-Birth Certificate Linked Data 2008-2015," by D. Hayes, E.O. Boundy, H. Hansen-Smith, and C. Melcher, n.d., manuscript under review. Reprinted with permission. Metabolic Screening data is linked to maternal race on birth certificate. The top chart does not show statistically significant differences by race/ethnicity.



#### **Purpose**

The goals of this evaluation were to explore disparities in exclusive breastfeeding rates in Hawai'i from the perspectives of hospital and community partners who work with breastfeeding mothers, and to gather key informants' ideas on strategies that could help to reduce them.

#### Methods

Between March 22 and May 28, 2019, the Healthy Hawai'i Initiative Evaluation Team conducted interviews and surveys with key informants at 32 organizations and hospitals statewide. Key informants were identified through surveys of hospital partners, lactation support resource lists, and interviewee recommendations. At least 5 organizations and hospitals in each county were interviewed or surveyed. Participants included nurses, doctors, a medical director, a case manager, a community health worker, private lactation consultants, midwives, WIC program coordinators, childbirth educators, La Leche League Leaders, non-profit executive directors, breastfeeding peer counselors, and coalition leaders. Interviews were conducted until there was statewide representation and repetition in themes around reasons for disparities and needed supports. Data were coded for themes across all participants and islands. Data collection was approved by the Hawai'i Department of Health's Institutional Review Board.



Photo Credit: https://pixabay.com/photos/baby-breast-breastfeeding-care-21167



#### Disparities and Reasons for Disparities

Key informants were asked about any disparities they noticed in exclusive breastfeeding among the women they work with and what they think the reasons are for those disparities. They reported seeing lower exclusive breastfeeding rates by maternal age, socioeconomic status, geography, race or ethnicity, and a variety of other factors, and gave their *perspectives and opinions* about the reasons for those disparities, which were combined into this report.

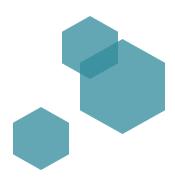
#### Maternal Age

Key informants noticed disparities in exclusive breastfeeding rates by maternal age. They felt that the teen and younger mothers they work with tend to have lower rates of breastfeeding for a variety of reasons. They said that teen moms can tend to get into prenatal care later in their pregnancies and therefore are not getting sufficient prenatal education about breastfeeding. They also said that teen mothers may lack family supports for breastfeeding. If grandparents are not supportive of breastfeeding, because they used formula when feeding their own babies, then teen mothers may be more inclined to use formula. Also, key informants said that sometimes grandparents are the ones that will be the babies' primary caregivers, and so teen mothers may be not be the ones making the infant feeding choices. Teen mothers may also not have consistent access to their infants for direct breastfeeding if the baby goes back and forth between the mother and father or the maternal and paternal grandparents.

Many of the key informants also spoke of the lack of supports for breastfeeding in schools. They spoke of a program called GRADS (Graduation, Reality, And Dual-role Skills) that was funded through the state Department of Human Services and offered in many Department of Education (DOE) schools in the early 2000s (Creamer, 2005), but now is only in a limited number of schools through different funding. The program educated teen parents on parenting and life skills and gave them supports they needed to stay in school and work toward graduation. It also included breastfeeding education and supports, including oncampus childcare and space for teen mothers to pump to maintain their milk supplies. Key informants felt more programs like this in schools would help teen mothers to be more successful at exclusive breastfeeding.

In contrast, key informants felt that *mothers over 35* also are also less likely to exclusively breastfeed for a long duration. Key informants explained that these

mothers may be educated about breastfeeding, and have a strong desire to do it, but may have more difficulties breastfeeding due to other comorbidities, such as high blood pressure or diabetes or physiological challenges in making milk. They also felt that higher rates of cesarean delivery among older mothers could contribute to shorter duration of breastfeeding among these women.



#### Socioeconomic Status

Related to income and socioeconomic status, key informants identified working mothers and women who have little or no paid family leave as being less likely to exclusively breastfeed. Key informants explained that some of these women may not initiate breastfeeding because they feel that since they will need to bottle feed eventually, they might as well get their babies used to bottle feeding right away. If they do initiate, these women may also have shorter breastfeeding duration due to challenges with pumping enough to maintain their milk production. Key informants specifically spoke of how women who work multiple jobs, have more challenges in maintaining their milk supply and breastfeeding than mothers who do not have to work multiple jobs. They also spoke of how mothers who have to rely on public transportation sometimes find the schedules to be erratic or that the commute can take a long time, which can make pumping difficult as well.

Lack of workplace supports are another factor that key informants felt contributes to challenges for working mothers. Key informants have heard from some of their patients that despite breastfeeding laws, they do not have a private, non-bathroom spaces or time to pump. They have also heard that some mothers have unsupportive employers and therefore fear being fired for asking for workplace accommodations. Women have also reported experiencing bullying for having to pump every 2-3 hours due to employers not understanding the laws or how breastfeeding works. Women in the hotel, fast food, and agriculture industries were specifically identified as having challenges and lack of supports for pumping at work due to job duties, time constraints, lack of private spaces to pump, and lack of places to store milk.

Often low income mothers are those working in hourly jobs that do not have paid leave or do not have space and time to pump at work. Low income mothers may have added stresses and competing priorities that may make it difficult for them to breastfeed even if they want to do it. A few key informants spoke about how they have worked with low income women who did not have stable sources of food. They shared that these women expressed they did not think they could breastfeed because they were not able to get enough food to eat themselves. Another key informant shared that some very low income mothers, who choose to mixed-feed or formula-feed, may experience "formula insecurity" and need to return primarily to breastfeeding when formula is scarce.

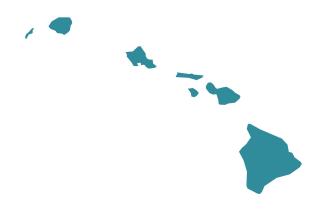
Key informants also discussed how psychosocially high risk women--those they identified as being high risk due to factors such as being in abusive relationships, having substance use disorders, or being homeless--are also less likely to exclusively breastfeed than other mothers. Their complex psychosocial situations can make it difficult for them to prioritize breastfeeding. Key informants reported that these women can lack access to health care and therefore may lack medical supports encouragement to breastfeed. They may also not have partner or family supports to breastfeed, or may not want to or be able to give up smoking or using other substances in order to breastfeed. can be a difficult goal when Breastfeeding women are struggling with other life challenges. Key informants spoke of the need to help mothers address these other issues in conjunction with providing them with supports for breastfeeding.

#### Geography

Additionally, key informants spoke of disparities related to where a mother lives and in which hospital she delivers. In general, key informants felt that rural communities in Hawai'i are under-resourced for breastfeeding supports. They said that many of the hospitals in these communities are small or statefunded, which they felt can impact hospitals' ability to provide breastfeeding supports, in terms of funding and staffing. Hospital culture was also seen as a factor affecting breastfeeding support, which key informants felt can vary by hospital. They spoke of how women who live only an hour away from each other on the same island can have vastly different experiences based on where they deliver. They felt that women who deliver in a hospital that is Baby-Friendly Designated or has adopted the Ten Steps to Successful Breastfeeding (Ten Steps), can have delivery experiences that are more supportive of breastfeeding than those who deliver in hospitals that are not designated or following the Ten Steps.

Additionally, key informants said that access to community resources for breastfeeding differs by where women live. They felt that rural and neighbor island communities have less access to community resources for breastfeeding, which means women living in these areas may lack supports to continue breastfeeding after they are discharged from the hospital.

Finally, key informants pointed out that it is difficult to truly unmask any disparities in exclusive breastfeeding rates by hospital or geography because data is only shared at the county level. They called for better data to help see where disparities in exclusive breastfeeding truly exist.



#### Race/Ethnicity

Key informants commonly said they did not want to perpetuate stereotypes by identifying any specific race or ethnicity as being less likely to exclusively breastfeed, especially since they did not have any of their own data to substantiate any disparities they perceived. They encouraged the evaluation team to talk to mothers themselves in different communities to find out what disparities exist and what reasons mothers of different ethnic groups may or may not be exclusively breastfeeding. They also felt that having better exclusive breastfeeding data collected at later intervals than 24-48 hours after delivery (as is the methodology of the Newborn Metabolic Screening program data), and in geographic areas that are smaller than the county level data reported by the Pregnancy Risk Assessment Monitoring System (PRAMS), would be helpful in understanding what disparities exist in certain communities that have diverse populations. However, key informants did identify a few cultural and social factors that may contribute to disparate rates of breastfeeding among some racial or ethnic groups.

Some key informants noticed that, from their perspectives, some newly immigrated families, especially ones that come from countries that have cultural and social norms that support formula-use, have a tendency to use formula or combination feed their babies. They said that in some countries (e.g., Philippines, some Pacific Island nations), formula can be a status symbol. If you can afford formula, you have "made it" and so women from these countries may be more inclined to use formula. Key informants also talked about how in some countries (e.g., China), there are social media campaigns advertisements about the nutrition and benefits of formula, which can be a powerful influence on some mothers' feeding practices when they move to Hawai'i. Interviewees said that they have worked with some women who have had a strong desire to formula feed their babies beyond age two, due to a perception of formula's continued benefits beyond the first year of life.

Key informants also shared that some women who immigrate to the United States from countries that have high rates of infant mortality (e.g., Marshall Islands), may feel that since Americans formula feed and have babies that live long, formula feeding must be the answer to reduce infant mortality. Key informants spoke about how it can be difficult for

women to believe that they shouldn't use formula if so many people in the US use it, and they perceive that US babies are "fat" and live "longer." Key informants felt that a lack of trust with the health care system can be a factor as well. Women may feel that health care workers are just saying that breastfeeding is better because it is cheaper than formula. They also said that some women may feel that by feeding formula and breastmilk at the same time, they can give their babies a better chance of surviving than with formula or breastfeeding alone.

On the other hand, key informants said that for some newly immigrated families breastfeeding is the norm in their home countries and they continue to successfully exclusively breastfeed after moving to Hawai'i. They also felt that some groups that have rates historically had lower of exclusive breastfeeding, seem to be increasing their breastfeeding rates. Anecdotally, they felt that national initiatives to improve breastfeeding rates among African American women and women in the military have had positive impacts on breastfeeding rates among these groups in Hawai'i. They also felt that there has been a shift in social norms around breastfeeding for Native Hawaiian women in the last ten years. They felt that some of these women may not have breastfed their older children but are interested in breastfeeding their newborn babies.

Key informants also identified other cultural and social practices that they felt influenced exclusive breastfeeding among some race or ethnic groups. They spoke of the fact that among some groups, there is a practice of the entire community caring for babies. In these scenarios, mothers may feel that it is easier to formula feed their babies because formula enables babies to be fed by anyone at any time. Another cultural practice key informants felt disrupts exclusive breastfeeding duration is the custom of feeding solids at 3 months, such as adding rice to breastmilk to help the baby sleep through the night. This practice is not evidence-based but is an embedded practice in some cultures. Key informants also spoke about how there are some ethnic groups with cultural beliefs that fat babies are healthy babies and therefore they feed their babies formula in order to help them gain weight. Other key informants noted that they have worked with some mothers who have cultural beliefs that they do not have milk right away and want to formula feed until their milk comes in, which impacts exclusive breastfeeding rates.

Key informants also spoke of needing data to better explore delayed access to health care, which they have seen among some Micronesian mothers. They felt that this later access to care and to services like WIC results in limited time for breastfeeding education. A few key informants wondered if this delayed access to care was a cultural practice or norm, or if it was a result of other factors like financial barriers or lack of education. Key informants stressed the need to talk to these women themselves to better understand the reasons behind delayed access to care so appropriate steps can be taken to get these women into care earlier in their pregnancies.

Finally, language barriers were another factor identified by key informants as influencing successful exclusive breastfeeding for some ethnic groups. Key informants said that they do not always speak the language of some of their Pacific Island clients (e.g., Micronesian, Marshallese), which can impact their ability to educate these women about breastfeeding. Additionally, sometimes these women will bring their own translators when they access services because there is a distrust of the translators that work for organizations and the state. This lack of trust and ability to communicate can disrupt breastfeeding education, which many key informants felt was important to increasing breastfeeding rates.



Photo Credit: Pixabay

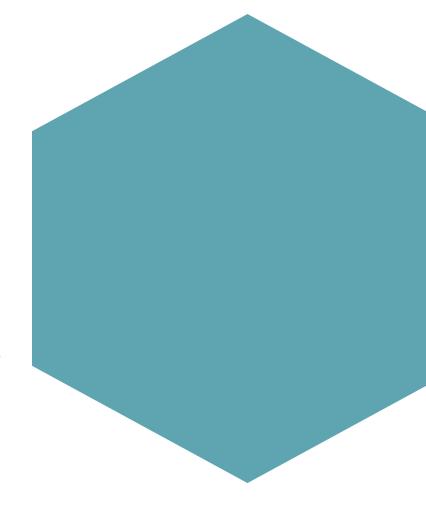


#### Other Groups Less Likely to Breastfeed

Beyond maternal age, socioeconomic status, geography, and racial or ethnic disparities in breastfeeding rates, key informants identified a variety of other groups that they feel are less likely to exclusively breastfeed.



Key informants identified mothers without peer and family supports as being less likely to exclusively breastfeed. They spoke of WIC eligible women who enter care after the first trimester and therefore are not eligible for WIC's Hi'ilaupoli Breastfeeding Peer Counseling (BFPC) Program. These women do not get the same follow-up and supports as those enrolled in the Hi'ilaupoli BFPC Program, which key informants felt results in shorter duration of breastfeeding than mothers who are enrolled in the program. Key informants also felt that military families, who are often isolated and don't have extended family supports in Hawai'i, tend to breastfeed for a shorter duration than other mothers. Literature has also shown women with social supports have better success breastfeeding than women who do not have social supports (Danawai, Estrada, Hasbini, & Wilson, 2016). Key informants stressed the importance of seeing other women breastfeeding to normalize the behavior and of having social supports to help women maintain exclusive breastfeeding. One key informant shared a story about a mother who was interested in breastfeeding but did not feel that



exclusivity was a priority. After she joined a support group with other mothers who had expectations to breastfeed and regularly talked to each other about breastfeeding, this mother's confidence and desire to continue to exclusively breastfeed grew.



Photo Credit: Meghan McGu

#### Matriarchal Influences

Key informants felt that women tend to follow the feeding practices of their mothers, aunts, sisters, and grandmothers. They felt that if a woman's matriarchal influences encouraged breastfeeding, they will be more likely to breastfeed, and if their matriarchs encouraged formula feeding, they would be more likely to formula feed. Key informants said that for some ethnic groups, matriarchal influences were particularly impactful on a woman's feeding decision.

#### Primiparous Mothers

Primiparous, or first time mothers, were another group identified as being less likely to exclusively breastfeed. A couple of key informants felt that first time moms take longer to get their milk going. They also said that these moms don't know what to expect and are surprised that breastfeeding is not easy. They said that these mothers can have tender nipples and more pain breastfeeding experienced mothers. Key informants felt that if these mothers lacked family or professional supports, they tended to give up on breastfeeding. Additionally, key informants felt that mothers who had trouble breastfeeding with their first child had a tendency to not attempt breastfeeding for their subsequent children. They felt that this was particularly true of women whose first babies had tethered oral tissue that was not resolved. In general, they felt that helping first time mothers to overcome challenges would improve exclusive breastfeeding rates for all women.

#### Mothers with Gestational Diabetes

Mothers who had been diagnosed with gestational diabetes were another group identified as having disparate rates of exclusive breastfeeding. Key informants said that because these babies have low blood sugar at birth, mothers think their milk is not good enough for their babies. They also said that diabetic mothers are at a higher risk of having low milk supply and a delay in onset of lactogenesis stage II (copious milk production), which can make breastfeeding more challenging.

## Mothers Delivering by Cesarean

The last alternative group that key informants felt had lower exclusive breastfeeding rates was mothers who delivered their babies by cesarean. Key informants spoke of the fact that cesarean delivery leads to early separation between the mother and infant, which can delay breastfeeding or milk expression. One study found that when mothers of very low birth weight infants expressed breastmilk between 1 and 6 hours after birth, they had greater milk volume at one week than those who expressed milk later than 6 hours postpartum (Parker, 2015). Delays in breastfeeding or milk expression that can result from cesarean delivery can lead to reduced milk supply and impact breastfeeding duration.

Key informants pointed out that certain populations have higher cesarean rates than others (e.g., mothers who have gestational diabetes, older mothers, women of color, mothers of multiples, preterm deliveries, etc.), which can both create and perpetuate disparities in breastfeeding. They felt that working to reduce disparities in cesarean deliveries, through earlier access to prenatal care and improved access to Vaginal Birth After Cesarean (VBAC), especially on the neighbor islands where it is not always available, would improve breastfeeding rates. Key informants also suggested that improvements could be made in lactation care for mothers delivering by cesarean, so that mothers receive more breastfeeding guidance and are helped with expressing milk or breastfeeding earlier after delivery.

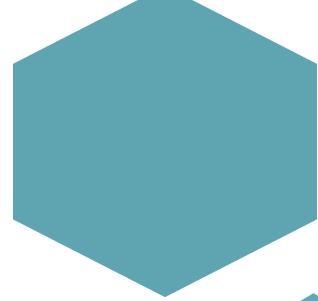




Photo Credit: Unsplash, Alex Pasarelu

#### Solutions

The solutions in this section are those proposed by key informants in response to the following question, "What supports are needed to help improve breastfeeding rates among the subgroups you identified as being less likely to exclusively breastfeed?" While key informants raised many broad solutions that would help to alleviate breastfeeding disparities they see in Hawai'i in both this section and in the companion report, "Breastfeeding Community Resources in Hawai'i: Gaps and Needs" (McGurk, 2019; such as paid family leave,

access to care and services, prenatal education, etc.), some of the solutions may seem narrow in scope. That is because key informants were not asked to come up with solutions to resolve many of the systems and structures that lead to breastfeeding disparities in Hawai'i. Further discussions are needed to address these more complex factors influencing breastfeeding and health disparities in general.



#### Paid Family Leave

Key informants felt that one of the most impactful efforts to reduce disparities in breastfeeding would be to establish a policy that provides paid family leave to all families for six months or at least for the first six to twelve weeks of the baby's life. They stressed the importance of keeping mothers and newborns together for as long as possible so they can have uninterrupted time for breastfeeding and so mothers can have an easier time maintaining their milk supplies. Studies have shown that mothers who return to work at six or fewer weeks after delivery are more likely to stop breastfeeding than women who return to work later than six weeks, and that women who return to work after 12 weeks have even longer breastfeeding duration (Ogbuanu, Glover, Probst, Liu, & Hussey, 2011; Guendelman et al., 2009)

Additionally, data shows that women of color tend to have lower paying jobs than white women and tend to have less access to paid family leave (National Partnership for Women & Families, 2018; Glynn & Farrell, 2012), which can perpetuate racial and ethnic disparities in breastfeeding. Key informants said that women working in higher paying, salaried jobs tend to have paid leave that they can use to have uninterrupted time with their newborns in order to establish breastfeeding, while women in low-paying, hourly jobs tend to have to return to work soon after delivery. They felt that ensuring that all families have paid leave no matter where they work, would help to reduce exclusive breastfeeding disparities.

They also spoke of how Temporary Disability Insurance (TDI) can be helpful to mothers without paid family leave but that there is currently inconsistent access to TDI based on the type of work a mother does, the consistency of that work, and her ability to navigate the TDI system. Improving access to TDI would also give mothers more time with their babies and would facilitate breastfeeding.

#### Reach out to Mothers

Many of the interviewees felt that there is a need to reach out to women in different ethnic groups and communities to find out more about their breastfeeding practices, the barriers they face, and solutions they feel would help improve breastfeeding rates in their communities. One group that interviewees specifically recommended reaching out was women of Marshallese communities throughout the state. Some key informants have noticed high breastfeeding rates and breastfeeding duration among these women but that they also supplement with formula. They are intrigued by the fact that formula does not seem to be as disruptive to their breastfeeding as it seems to be for other women. More exploration is needed to understand the practices and needs of this subgroup. In general, key informants felt there is a need to do more to reach out to all different ethnic groups and communities to both understand and work to address the challenges women face in successfully breastfeeding. They suggested using DOH staff who are already working in communities, such as WIC counselors or public health nurses, to start this inquiry.

#### **Data Needs**

As stated in the companion report, "Breastfeeding Community Resources in Hawai'i: Gaps and Needs" (McGurk, 2019), key informants felt there are gaps in data that need to be resolved to better understand disparities in exclusive breastfeeding rates. They spoke of how PRAMS data is not current and not granular enough to show what disparities there are in exclusive breastfeeding rates in Hawai'i. They felt that there is a need for data showing smaller geographic areas, because of vast differences in breastfeeding rates even within one island, and the need for more useful ethnicity categories, because current categories often do not show Marshallese, Micronesian, or recent immigrant populations from Mexico and Central America.

They also felt that the Newborn Metabolic Screening program data is collected early, before women face challenges breastfeeding and so it is not a good indicator of disparities. They felt that there should be follow-up with mothers at later than 24-48 hours after delivery in order to get better data on breastfeeding disparities. They would like hospitals to voluntarily share their breastfeeding data to improve transparency in breastfeeding rates by hospital and encourage all hospitals to strive to improve their rates.

#### School Based Supports for Teens

A number of key informants felt that improving breastfeeding supports in schools is important to help improve breastfeeding rates among teen mothers. Key informants said that there needs to be space and time for teens to breastfeed while at school. They also felt that teens need better prenatal education about the importance of breastfeeding. A couple of people suggested breastfeeding education should be included as part of sex education curriculum to improve education for teen moms and also to improve community education about breastfeeding in general. Many people felt that the GRADS Program or a similar program should be offered in more DOE schools or that at the very least there should be lactation rooms and education classes for teen mothers. Some key informants also wanted there to be day care at high schools so that teen moms could have closer access to their babies maintain breastfeeding. Additionally, informants emphasized the need to get pregnant teens into health care earlier in their pregnancies to enable earlier education about breastfeeding.

#### **Prenatal Education**

Key informants felt that better prenatal education of all mothers, regardless of their income, race or ethnicity, where they live, etc., is paramount to improving exclusive breastfeeding rates in Hawai'i. They said that a lot of mothers don't realize the benefits of breastfeeding or the importance of exclusively breastfeeding for their milk production. They also said that some mothers expect breastfeeding to occur naturally and to be a lot easier than it is, which can cause frustration and short breastfeeding duration. Key informants felt that ensuring that all mothers received prenatal breastfeeding education would help women to prepare for breastfeeding and know where to turn when they have challenges. Also, as stated in the companion report, they felt that it would be helpful to have obstetricians and gynecologists take on the responsibility of doing prenatal breastfeeding education. One key informant, working at a Baby Friendly Designated hospital, emphasized how powerful education can be in influencing mother's breastfeeding choices. She said that even when mothers arrive at her hospital with misunderstandings of breastfeeding, once they are educated about how important breastfeeding is, they are willing to try to breastfeed.

## General Education on Breastfeeding

In addition to gaps in prenatal education, key informants identified gaps in education of physicians, nurses, and providers, of family members and support people, of employers, and of the community at large. They felt that there is a general lack of understanding of the value of breastfeeding among all these groups, which is a factor that contributes to the disparities they see in exclusive breastfeeding. They named a number of solutions to improve education about breastfeeding and supports for breastfeeding women in the companion report, "Breastfeeding Community Resources in Hawai'i: Gaps and Needs" (see McGurk, 2019 for more details), many of which they felt would also help to reduce disparities so all women can be supported and successful in exclusively breastfeeding.

#### Improve Workplace Supports

Key informants also wanted employer education to improve breastfeeding supports for working mothers. They also wanted mothers to be educated so that they know their rights around pumping at work and how to advocate for themselves.

### Targeted Supports for First Time Moms

Because of challenges that many first time mothers have in breastfeeding, key informants wanted to see extra education and supports for first time mothers to aide them in successfully breastfeeding.

## Improve Access to Lactation Supports

In general, key informants felt that insurance coverage for lactation support services is essential to improve supports for mothers so they can exclusively breastfeed for at least six months recommendations. They also felt that increasing lactation support services and clinics in rural and neighbor island communities would help with geographic disparities in access to resources and breastfeeding rates. Additionally, they felt that affordable post-partum International Board Certified Lactation Consultant (IBCLC) services for all mothers would reduce breastfeeding disparities.

## Access to Care and Support Services

While issues around access to care are a recognized factor related to disparities in breastfeeding (Danawai, Estrada, Hasbini, & Wilson, 2016), key informants did not specifically talk about addressing those challenges to mitigate the disparities they noticed in breastfeeding rates. However, they did talk about how in some rural and neighbor island communities there are shortages of pediatricians, providers to treat tethered oral tissues, and lactation support professionals, and that improving access to these types of providers in general would create better supports for breastfeeding. To address the disparities they noticed, they specifically talked about how encouraging mothers to get into services (e.g., WIC services) or care earlier in their pregnancies would enable more breastfeeding education, which they felt was critical to reducing breastfeeding disparities. They also felt that checking in with mothers earlier after hospital discharge and getting those who were having challenges breastfeeding into support services earlier would help them to exclusively breastfeed for longer durations.

#### Improve Hospital Supports

Key informants spoke of a number of hospital-based supports that they felt are necessary to reduce inequities statewide. They talked about how hospital policies can impact a mother's success in breastfeeding and therefore wanted to see more hospitals adopting the Ten Steps or becoming Baby Friendly Designated. They wanted all mothers, no matter where they deliver, to be able to get the same standard of care to support their feeding preferences. Related to this, key informants wanted all hospitals to stop accepting free formula. They also wanted to see all hospitals have dedicated lactation consultants that can visit all mothers before they are discharged. They would like better communication between inpatient and outpatient lactation services and want hospitals to make sure that mothers have follow-up with a lactation support provider in the community post-discharge. For mothers that have to deliver on a different island, key informants would like to see extra help given to these mothers before they are discharged because they can't easily return to O'ahu or Maui to access hospital-based lactation support services.

#### Peer Support Programs & Groups

Key informants felt that having peer support programs in more communities and having peer counselors of different ethnic groups would help to reduce ethnic disparities in breastfeeding rates. They spoke of how important it is to have peer counselors who understand the culture, practices, and language clients and can educate women about breastfeeding in culturally relevant and sensitive ways. They felt that a comprehensive system of peer counselors throughout the state, and not just for WIC-eligible mothers, would be helpful to increase exclusive breastfeeding duration. They suggested cross-training other peer support workers (e.g., Community Health Workers, home visiting teams, etc.) in breastfeeding supports in order to create such a network. One key informant also suggested that Hawai'i WIC may want to consider a change in policy to expand the program to women who are in their second or even their third trimesters, because the decision to limit enrollment in the WIC Hi'ilaupoli BFPC program is a local, not a national one. Additionally, key informants wanted more peer supports and support groups in general because they felt that being around other mothers who are breastfeeding can help to normalize the behavior and set mothers up for success. Finally, they felt that there should be more support groups for certain ethnic groups and for teen mothers to help reduce disparities.

## Language Supports & Cultural Competency

Because of language barriers impacting education about breastfeeding, key informants requested educational materials translated into different languages to support non-English speaking mothers they work with. They also specifically talked about needing more staff members on their teams that speak different languages in order to educate mothers about the fact that formula does not have any better nutrients in it than breastmilk, which is a belief in some communities. One key informant also felt that there was a need for more cultural competency training for people who work with breastfeeding mothers (e.g., public health nurses, physicians, lactation consultants, etc.) so they can better understand the cultural practices and perspectives of the women that they work with and can more effectively communicate with them.

### Train IBCLCs of Different Ethnicities

Related to language, cultural competency, and peer support programs, key informants felt that there needs to be more women of underrepresented groups trained as IBCLCs so women can get breastfeeding support and education from their peers. In Los Angeles, they have also made this recommendation to help reduce breastfeeding disparities (BreastfeedLA, 2019). However, in their report, BreastfeedLA noted that there are a number of barriers, such as the financial costs of the certification and trainings, the lack of jobs for IBCLCs who are not also Registered Nurses, the lack of IBCLC training opportunities, etc., that need to be removed to enable more women of underrepresented groups to become certified as IBCLCs. These types of barriers would have to be addressed in Hawai'i as well, especially since key informants noted that in general, there are shortages in clinical placement and IBCLC training opportunities, and that there is a lack of jobs in Hawai'i for IBCLCs. Key informants felt that improving the state's IBCLC infrastructure overall is necessary to increase the number of IBCLCs in Hawai'i. While stakeholders work to improve the infrastructure, efforts should also focus on recruiting women of subgroups that have lower rates of breastfeeding to become IBCLCs.

## Supports for the Social Determinants of Health

Finally, a few key informants spoke of the fact that some of the patient populations they serve are high risk, low-income, and underserved. They felt that many of the women that they work with are willing to attempt breastfeeding, but depending on their life situations, may not be able to prioritize it. These key informants felt it is necessary to probe at what barriers might come up for the mothers that they counsel about breastfeeding, and to get them into other support services so that they can overcome those barriers and be successful at breastfeeding. Key informants felt that addressing mothers' social determinants of health is critical to reducing breastfeeding disparities.

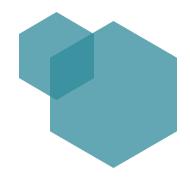
## Discussion & Limitations

During this data collection, key informants identified several disparities around exclusive breastfeeding and reasons for these disparities. They also identified groups that have challenges in exclusively breastfeeding that are not ones that would generally be described as disparate groups (e.g., primiparous mothers, mothers without family support, etc.). This is likely due to the fact that many of the key informants were hesitant to identify disparities, especially racial and ethnic ones, because they did not want to perpetuate stereotypes. Instead, many of the key informants encouraged the evaluation team to instead reach out to women in different communities to understand the challenges and barriers they face in exclusive breastfeeding. Although interviewing mothers themselves was beyond the scope of this evaluation, it is a valid suggestion and highlights the fact that only talking to community and hospital providers about their perspectives on breastfeeding disparities has its limitations.

Additionally, the findings in this report are limited in that they only represent the perspectives of the people who participated in the key informant interviews. Although we tried to get a thorough statewide perspective by collecting data from each county, including different types of organizations and professionals, there were some key players who did not participate in the study, including representatives from two of the state's maternity care hospitals. We also did not collect data on the race or ethnicity of the key informants, therefore we don't know if we captured perspectives that were ethnically or culturally diverse in this report. If we were to collect this data again, it would be important to capture such data to give context to the perspectives shared and to be able to recognize which voices were missing from the discussions and acknowledge potential biases that may be in the data. Furthermore, the focus of the data collection was on perspectives around breastfeeding disparities from those working in the field. However, there are other key informants who have expertise in health disparities in Hawai'i in general, who could have contributed additional insights to this report, had they been interviewed.

Finally, the findings in this report highlight the fact that breastfeeding disparities are quite complex. It has been recognized that social determinants of health, discrimination, systemic and institutionalized racism, and poverty structures all perpetuate disparities around breastfeeding (Danawai, Estrada, Hasbini, & Wilson, 2016). However, interviewees were not asked to identify these established and complicated systems and structures, or to come up with solutions to address them. Instead, interviewees were asked to share their perspectives on the disparities they see every day and their opinions on what could help to improve breastfeeding rates for all women in Hawai'i. To truly identify and begin to address the complex factors leading to breastfeeding disparities in Hawai'i, it may be necessary to bring together a more diverse group of stakeholders to have a dedicated, disparities-focused discussion.





#### References

BreastfeedLA (2019). Taking action to reduce infant feeding inequities in Los Angeles county: Our collective responsibility. Retrieved from http://breastfeedla.org/wp-content/uploads/2019/05/BFLA-2018-Summit-Report-WEB-1.pdf

Creamer, B. (2005, November 27). Teen parents staying in school. *Honolulu Advertiser*. Retrieved from http://the.honoluluadvertiser.com/article/2005/Nov/27/In/FP511270343.html

Danawai, H., Estrada, L., Hasbini, T., & Wilson, D.R. (2016). Health inequities and breastfeeding in the United States of America. *International Journal of Childbirth Education*, *31*(1), 35-39.

Hayes, D., Boundy, E.O., Hansen-Smith, H. & Melcher, C. (n.d.). Maternal race trends in early infant feeding patterns in Hawai'i using Newborn Metabolic Screening-birth certificate linked data 2008-2015. Manuscript under review.

Glynn, SJ., & Farrell, J. (2012). Latinos least likely to have paid leave or workplace flexibility. Retrieved from https://www.americanprogress.org/issues/economy/reports/2012/11/20/45394/latinos-least-likely-to-have-paid-leave-or-workplace-flexibility/

Guendelman, S., Kosa, J. L., Pearl, M., Graham, S., Goodman, J., & Kharrazi, M. (2009). Juggling work and breastfeeding: Effects of maternity leave and occupational characteristics. *Pediatrics*, *123*(1), e38-e46.

Kahin, S. A., McGurk, M., Hansen-Smith, H., West, M., Li, R., & Lopez Melcher, C. (2017). Key program findings and insights from the Baby-Friendly Hawai'i Project. *Journal of Human Lactation*, 33(2), 409-414.

National Partnership for Women & Families (2018). Paid family and medical leave: A racial justice issue – and opportunity. Issue Brief. Washington, DC 20009, pg. 1-11. http://www.nationalpartnership.org/ourwork/resources/workplace/paid-leave/paid-family-and-medical-leave-racial-justice-issue-and-opportunity.pdf

McGurk, M. (2019). Breastfeeding community resources in Hawai'i: Gaps and needs: A report for the Hawai'i State Department of Health's Chronic Disease Prevention and Health Promotion Division. Email mcgurkm@hawaii.edu for a copy of the report.

Ogbuanu, C., Glover, S., Probst, J., Liu, J. & Hussey, J. (2011). The effect of maternity leave length and time of return to work on breastfeeding. *Pediatrics*, *127*(6), e1414-e1427.

Parker, L.A., Sullivan, S., Krueger, C., & Mueller, M. (2015). Association of timing and initiation of breastmilk expression on milk volume and timing of lactogenesis stage II among mothers of very low-birth-weight infants. Breastfeeding Medicine, 10(2), 84-91.

