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COALITION  
OF HAWAII

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# An Assessment of Parents' and Providers' Knowledge and Use of Postpartum Depression Support Resources in Hawaii

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## 1 Introduction

Healthy Mothers, Healthy Babies Coalition of Hawaii (HMHB) is a local nonprofit organization dedicated to eliminating health disparities by improving Hawaii's maternal, child and family health through collaborative efforts in public education, advocacy, and partner development. HMHB believes in equal access to quality health care; the importance of a collective voice to facilitate change; and the need to practice cultural competence.

HMHB:

- Provides the free MothersCare phone line, which was designed to help pregnant women and new mothers and their families find the information and resources necessary to have a healthy pregnancy, birth, and baby.
- Offers quarterly trainings for perinatal support service providers throughout Hawaii on various topics related to improving the health of pregnant women and new mothers and their infants.
- Coordinates quarterly Perinatal Advocacy Network meetings, the purpose of which is to increase awareness of perinatal issues in Hawaii, expand advocacy efforts for perinatal health issues and legislative actions, and increase networking and partnerships among state perinatal health providers.
- Creates and distributes various culturally-appropriate educational materials for Hawaii's pregnant women, mothers, and their families. Topics include safe sleep/sudden infant death syndrome prevention, fetal alcohol spectrum disorder, postpartum depression (PPD), breastfeeding, and nutrition. A "healthy and hapai" educational pregnancy calendar is given to pregnant women to help them keep track of their prenatal appointments and find resources for a healthy pregnancy.
- Updates and maintains an online pregnancy and perinatal resource directory searchable by both type of service and location (providers add/edit their organization's information pending HMHB approval).
- Performs two maternal and child health-related needs assessments per fiscal year to help steer community and government organizations' efforts to improve maternal and child health in Hawaii.
- Updates families and providers on current recalls, maternal and child health news, and local resources and events in the maternal and child health community through social media, including Facebook and Twitter and through promotion of the Text4Baby program.

## 2 Background

PPD is a serious mental health condition that affects an estimated 10–20% of women in the United States within six months of giving birth.<sup>1</sup> PPD can interfere with a woman's ability to function, including caring for her baby. Women with PPD are less likely to interact with

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<sup>1</sup> Hayes DK. Disparities in Self-Reported Postpartum Depression among Asian, Hawaiian, and Pacific Islander Women in Hawaii: Pregnancy Risk Assessment Monitoring System (PRAMS), 2004–2007. *Matern Child Health J.* 2010 Sep;14(5):765-73. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/19653084>. Accessed July 23, 2014.

their infants and less likely to breastfeed. Untreated PPD can impact the developmental health and well-being of a child, long-term.<sup>2</sup>

According to data from the Pregnancy Risk Assessment Monitoring System (PRAMS) for Hawaii, “about 1 in 7 women (14.5%) with a recent live birth reported Self-Reported Postpartum Depressive Symptoms (SRPPD),” and all Asian and Pacific Islander groups have much higher odds of SRPPD than white women.<sup>3,4</sup> Other risk factors for PPD include having low socioeconomic status (SES), having fewer years of education, being unmarried, using illicit drugs and/or tobacco during/after pregnancy, and having experienced intimate partner violence.

To effectively address PPD in Hawaii, the Hawaii State Department of Health (DOH) asserts that it is “important to develop culturally appropriate programs to increase awareness.”<sup>4</sup> Stigma and shame continue to be major impediments to women seeking help. Moreover, while resources for PPD support exist in Hawaii, they are unevenly allocated across the islands and there is a pervasive lack of awareness about them. A study by Hayes et al recommended that “messages about PPD should be incorporated into current programs to improve screening, treatment, and prevention of [PPD] for women at risk.”<sup>3</sup>

### 3 Overview

HMHB receives numerous requests for local postpartum support resources through the MothersCare phone line and the HMHB website. Given the volume of requests, the importance of early childhood support on health outcomes for both mothers and babies, and because HMHB is contracted to conduct two needs assessments annually, it was determined that postpartum support in Hawaii, specifically around breastfeeding and PPD, would be assessed.

The purpose of this study was to identify existing local resources for PPD support, and to understand parents’ awareness and perceptions of, as well as access to, those resources. The study also aimed to assess what resources and training are perceived to be lacking and where, and to draw out participant-identified strategies for addressing service gaps.

HMHB intends to use the data from this assessment to seek funding to create or augment postpartum support programs, and to provide insight and support for its role in the Hawaii Maternal and Infant Health Collaborative—a collective effort to improve birth outcomes statewide. There is great potential to improve the quality of postpartum support for Hawaii

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<sup>2</sup> Bernard-Bonnin AC. Maternal depression and child development. *Paediatr Child Health*. Oct 2004; 9(8): 575–583. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2724169/#!po=65.9091>. Accessed July 23, 2014.

<sup>3</sup> Hayes DK. Disparities in Self-Reported Postpartum Depression among Asian, Hawaiian, and Pacific Islander Women in Hawaii: Pregnancy Risk Assessment Monitoring System (PRAMS), 2004–2007. *Matern Child Health J*. 2010 Sep;14(5):765-73. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/19653084>. Accessed July 23, 2014.

<sup>4</sup> Hawaii State Department of Health Family Health Services Division. PRAMS Postpartum Depression Fact Sheet. Available from: <http://health.hawaii.gov/mchb/files/2013/05/postpartum20101.pdf>. Accessed July 21, 2014.

residents, particularly among populations considered most “at-risk,” who, statistically, have the lowest breastfeeding rates, and the highest rates of PPD.

## 4 Methods

Data were collected through two anonymous, web-based surveys using SurveyMonkey. The surveys had two distinct audiences: 1) Perinatal health care providers, health educators, and home visitors throughout the Hawaiian Islands; and 2) Parents who may have used or needed PPD support resources, or been made aware of PPD resources, in a variety of settings.

Participants were drawn from HMHB’s contact databases of parents and providers as well as followers of its social media accounts. Survey links were sent electronically to 782 parents and 274 providers as well as posted on Facebook (audience of 1,854) and Twitter (audience of 495), for a total of 3,405 potential participants.

The parent contacts are individuals who have self-selected to have a relationship with HMHB, having received services, connected at parent support events, and/or volunteered with the organization. Demographically, they range from high- to low SES. The provider contacts consist of perinatal providers at health centers, government agencies and nonprofit organizations that HMHB has long-established relationships with.

Both surveys included a mix of qualitative and quantitative questions. SurveyMonkey’s analysis feature was used to analyze the quantitative responses; qualitative responses were coded and quantified by HMHB researchers. Each qualitative question was independently analyzed. For example, participants were asked to identify local PPD resource websites, where they learned about the site, and when. Each of these elements was parsed on its own; therefore, response rates vary.

### 4.1 Limitations

#### *Response Rate and Biases*

The response rate was low at 5%—from a potential 3,405 contacts accessed via email and social media, only 153 responded.

Using HMHB’s database of contacts and social media followers for the parent survey population may have led to selection bias on several levels. Firstly, participants were limited to those who have access to a computer or the Internet. Secondly, the length of the survey may have narrowed the participant population further, with parents of a higher-than-average SES completing it over those with a lower SES. (Anecdotally, a provider agency that serves clientele of a lower SES indicated that their clients were not inclined to complete the survey because it was “too long.”)

The data yielded does not provide a complete picture of PPD support resources throughout the state. Of those who did participate in the survey, many skipped questions—ranging from one to several portions of the survey. Further, most islands are highly underrepresented—the disproportionate majority of parent respondents live and/or work

on Oahu. While this allows for a better understanding of the PPD support resources and needs on Oahu, it is difficult to accurately report on the PPD support services and areas of need across the state.

It is also possible parent participants who took the survey had not personally experienced symptoms or sought treatment for PPD. This could explain why there is less data and more “I don’t know” responses for PPD as compared to the data collected on breastfeeding resources (see report, “An Assessment of Parents’ and Providers’ Knowledge and Use of Breastfeeding Support Resources in Hawaii, July 2014.”)

## 5 Findings

A total of 112 parents and 40 health care providers participated in these surveys. Although the demographics of the parent participants and the patients/clients the provider participants work with were distinctly different, both groups of respondents yielded valuable insight into the PPD support environment in Hawaii.

### 5.1 Parent Participant Responses

#### 5.1.1 Demographics

The majority of parent respondents live on Oahu. All participants reported that they speak English at home and 26% reported speaking another language. All had a high school diploma or higher, with the majority (47.3%) having a college degree. Income levels varied widely but the majority (47.3%) were of middle- or upper SES (see appendix, tables 1–7).

Although these results mean that this survey failed to capture the PPD support needs and experiences of low-SES mothers, respondents provided unique perspectives on the topic. Combined with responses from the provider participants, the majority of whom work with low-SES patients/clients, these surveys were able to adequately describe the PPD support environment, at least on Oahu

#### 5.1.2 Knowledge of Postpartum Depression Support Resources

Because most cases of PPD “when identified early, can be treated effectively on an outpatient basis,”<sup>5</sup> it is important that health care providers discuss PPD with pregnant women and new mothers, even before birth. And while just under half (49.1%; n = 112) of parent respondents said that their health care providers ever discussed PPD with them, 30.4% of respondents said that their providers did not (see appendix, table 8).

Of those respondents who reported that their provider discussed PPD with them (n = 54), nearly 45% reported that they did so while still pregnant and another 25.9% indicated that it was brought up right after birth while they were still in the hospital or birthing center (see appendix, table 9). In terms of frequency with which the topic was raised, 50% reported that their providers discussed PPD with them “at most prenatal and postpartum

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<sup>5</sup> Hawaii State Department of Health Family Health Services Division. PRAMS Postpartum Depression Fact Sheet. Available from: <http://health.hawaii.gov/mchb/files/2013/05/postpartum20101.pdf>. Accessed July 21, 2014.

visits.” While 31.5% reported that their health care providers discussed PPD with them “only at the birth or first postpartum visit,” these findings show at least a peripheral understanding among health care providers of the importance of addressing PPD with pregnant women and new mothers (see appendix, table 10). However, as one respondent described, recurrent discussion of PPD is important for new mothers: *“I received a screening questionnaire on my first pediatrician visit one week after birth but I was still on adrenaline. The exhaustion and the emotions did not hit me until a few weeks later but I never got screened again or was ever asked about it in person by my OB/GYN or pediatrician.”*

Although the data collected in these surveys have their limitations, participants indicated a pervasive lack of awareness of PPD support providers (including mental health professionals). When asked about their awareness of a variety of PPD resources or referral pathways on their island of residence—including their child’s pediatrician; in-person or online support groups; community, government, or nonprofit services; and local hotlines—the majority (52.8%; n = 112) replied “I don’t know” or “no,” they were not aware of any. Only 15.2% indicated that they were aware of any PPD support providers on the islands where they live (see appendix, table 11), reporting that those providers consisted of hospitals or therapists. Additionally, it is interesting to note that participants were largely unaware of any available PPD support groups (see appendix, table 12).

Educational materials are a cost-effective method to widely disseminate important health information; yet just 44.6% (n = 112) of parent participants reported receiving patient education materials on PPD from a health care provider (48%), hospital (40%), or community service agency such as WIC (18%) (see appendix, tables 15 and 16).

#### **5.1.5 Identified Challenges to Accessing PPD Support Resources**

While more than one-third of respondents (n = 112) were not able to identify any challenges to accessing PPD support resources in their communities, other participants identified several issues, including: cultural stigma; lack of available support programs; lack of insurance/ability to pay; lack of trained providers; lack of transportation/proximity of services; and materials or support in the appropriate language are not available (see appendix, table 17). One participant complained of a general lack of discussion about PPD, indicating that the problem is, *“No one asking about it—or asking in such a way that there is not time for a conversation about it. It’s asked like saying ‘How are you?’ in passing to someone, where you really don’t want the actual answer, just the ‘Fine.’”* This speaks to the need to increase awareness, not just among health care providers and new mothers, but also with partners and families. Support groups for new moms that include sections on PPD was suggested as a way to increase understanding of the issue while at the same time helping to reduce stigma.

Alarming, 60.7% of respondents (n = 112) indicated that one of the main reasons women do not access available PPD resources or support is that they do not feel their symptoms are severe enough, and 58% reported they believe that women feel too embarrassed or ashamed to seek help or support. Other reasons included not knowing where to find support or information (46.4%); could not afford/insurance would not cover PPD support

(23.2%); a lack of local PPD resources (16.1%); and a lack of transportation to support services (14.3%) (see appendix, table 18).

#### **5.1.4 Desired Resources**

While overall awareness of existing resources may be low, participants identified a number of PPD resources that they would like to see more widely available. These include increased: postpartum screening for PPD (frequency of screening and locations that perform it); private counseling; health care provider support; support groups; hotlines; and, to a lesser degree, home visitors, classes, and community/nonprofit services (see appendix, table 19).

One respondent suggested that health care providers who routinely work with new mothers receive additional training on treating PPD, including evidence-based information about the compatibility of common antidepressants with breastfeeding, and that sustained, exclusive breastfeeding can help reduce the risk of PPD and postpartum psychosis. *“A pediatrician told me at the four-month visit that sometimes mothers get PPD, and when they do, they’re prescribed Zoloft, which means they have to stop breastfeeding. I later learned that Zoloft is considered most compatible with breastfeeding out of all the PPD medications, so it’s most unfortunate that mothers are counseled incorrectly that they must discontinue breastfeeding in this situation.”*

## **5.2. Provider Participant Responses**

### **5.2.1 About the Providers**

Forty providers participated in this survey, 27.5% (n = 40) of whom were registered nurses; the remaining participants included a mix of nonprofit/community advocates, health educators, home visitors, lactation consultants, and OB/GYNs. Participants reported providing services in a variety of settings, though mostly at community health centers or in-home (see appendix, tables 20–22).

### **5.2.2 Patient Demographics**

In contrast to participants in the parents’ survey, provider participants reported working primarily with low-SES patients/clients (see appendix, table 24) who spoke a variety of languages other than English, including but not limited to: Chuukese, Marshallese, Ilocano, Tagalog, and Samoan (see appendix, table 25). As 22.5% of providers (n = 40) responded that resources are not necessarily available in the right languages, there may be a need for increased translation and interpretation services to ensure that materials are available in those languages (see appendix, table 30).

### **5.2.3 Providing PPD Support**

Though most provider participants do not offer PPD support, 40% (n = 40) of them reported that they screen for it. Only 1 provider neither screened nor referred patients/clients to outside resources (see appendix, table 26). The providers who do screen for PPD indicated that they address a wide range of issues with their patients/clients, including: stress management, partner involvement, history of depression/other mental



health issues, family support/support network, access to support and treatment, and partner violence.

The majority of providers (32.5%; n = 40) did not feel that they received adequate training around PPD support and treatment; 25% of providers perceived they did receive adequate training but still felt they could use additional training (see appendix, table 27).

Like the parent participants, providers also commented that support and treatment for PPD was lacking. They noted that treatment protocols may be out of date, only outpatient treatment is available in some locations, referral pathways are unclear, and screening tools, if available, are insufficient. Several providers also responded that new approaches to community outreach and education would be beneficial, beyond what is typically done by health care providers and/or nonprofit organizations.

Only 62.5% of providers (n = 40) could identify specific PPD support resources on the island(s) where they work. Private counselors and community health centers were the most identified resources for PPD support. However, each category had less than a 25% response rate, indicating that providers are not aware of many PPD support resources (see appendix, table 28 for a detailed breakdown of identified resource categories and responses).

One item of note is that providers mentioned WIC in a variety of capacities: as a community health center/local medical center; as supplying pamphlets and other fact sheets; and, as a community, government, or nonprofit service. Because one of the primary challenges associated with improving access to PPD support resources is lack of awareness, as well as consistent or ongoing follow-up, WIC could potentially be a valuable asset in future efforts.

#### **5.2.4 Barriers to PPD Support**

Identifying barriers to increasing access to and use of PPD support resources is an important first step for any efforts to improve PPD support resources in Hawaii. Provider participants (n = 40) identified a number of salient factors, including: lack of trained providers (40%); lack of PPD-specific support groups or resources (37.5%); cultural stigma (30%); and lack of PPD awareness among providers (30%). Providers also pointed to patient disinterest or failure to follow up on initial support as well as inefficient/inconsistent screening or lack of screening tools for PPD (see appendix, table 30).

Twenty-five percent of provider participants (n = 40) reported that they do not believe that women of all income levels have access to PPD support in Hawaii (an additional 20% responded that they did not know) (see appendix, table 29). One respondent pointed out, *“Women who are uninsured can’t often afford to pay for behavioral health services.”* Others suggested that women might not have access to PPD support due to cultural expectations or a language barrier. Finally, one provider noted the *“scant [behavioral health] resources on Hawaii Island,”* which is consistent with other findings in regard to discrepancies in resources between islands.

### 5.2.5 Desired Resources

Providers were asked to identify PPD support resources that would help improve access to care and half of all provider participants (n = 40) felt that continuing medical education on PPD was warranted. Nearly 43% felt that support groups, not to mention more counselors or providers specializing in PPD support, would be helpful. Hotlines, pamphlets, enhanced insurance coverage for PPD support services, and websites with local information (such as HMHB) were also mentioned as resources that would help improve access to PPD support and treatment (see appendix, table 31).

## 6 Discussion

A commonality between both parent and provider participants was the belief that PPD support and treatment in Hawaii is inadequate. Several indicated that PPD is not something widely discussed due to a lack of training on the part of providers, a lack of both providers' and parents' understanding of the importance of addressing symptoms, and cultural stigma and shame around addressing it.

Battling cultural stigma is a vast challenge in and of itself. One provider suggested, “[I] think it needs to be led by a respected cultural member of the area in order to break the stigma in the community.” Another parent participant expressed, “I think it would be good if the OB/GYN and other health care providers provided some information about [PPD] as a standard procedure so that it wouldn’t be a ‘shame’ factor if mothers need [help] but don’t want to ask for it.” In fact, one parent noted, “Instead of waiting for women to be proactive, it should be part of every well-baby visit so moms don’t need to ask for help—it is offered to those at risk.”

However, it is difficult for health care providers to discuss an issue they are not well trained in, and survey results strongly support the need for increased training for health care providers. In addition to the provider participants who expressed a lack of PPD support training or a desire for more education, one parent respondent explained, “OBs and nurses need an immense amount of training to screen moms AND connect with dads and/or the mom’s support network.”

Unfortunately, survey results show that PPD education and support can be difficult to access. As one provider noted, “There is a lack of education about it, [not to mention] all the other access-to-care issues on the Big Island: Not enough transportation, communication, providers, resources, finances.”

Finally, many new mothers may not be aware of available services, or might not even know that they have PPD and need help. The lack of education on PPD and existing resources—for both providers and parents—came up repeatedly in the data. For example, despite the number of PPD support hotlines in Hawaii, they were not frequently mentioned by survey participants. That only 8 providers were aware of any of them suggests a worrisome disconnect between referral to and use of existing PPD or mental health-specific resources. Increased marketing of these hotlines—which include Behavioral Health Services, 211,

Parent Line, PPD Support Hawaii, ACCESS line, MothersCare Line and NEST—should be a priority programmatic focus.

## 7 Recommendations

Despite the many barriers to women accessing PPD support resources, survey results identified several areas in which to focus future programmatic efforts. These are:

- **Increase training for health care providers about PPD symptoms and treatment.** Enhanced and continuing medical education efforts would be extremely valuable, as providers indicated their lack of training, and/or a desire for more specific PPD training and screening tools. Consideration should be given to collaborating with the local medical school and working with perinatal partners and DOH to disseminate educational information to health care providers. Pediatricians and other providers who may not be providing direct health services to mothers should also receive training and information on referrals to care.
- **Implement a system of consistent and recurrent PPD screenings by providers.** Instituting provider recommendations for ongoing screenings at consistent intervals would be beneficial to mothers, due to the fact that many women reported not being informed about PPD during pregnancy and/or not being screened for PPD symptoms postpartum. These guidelines would complement the identified need for increased training for providers, while providing an enhanced system of perinatal care across the state.
- **Increase education for parents about PPD symptoms and how and where to get help.** Enhanced marketing campaigns about PPD could be helpful to direct mothers and families to a well-publicized hub of information about where to seek help, including PPD support hotlines. Additionally, more research into the need for translated materials should be made, as both parents and providers indicated a lack of available information in the correct languages.
- **Reduce the perceived social stigma of PPD through community outreach efforts.** As many respondents reported, women often avoid seeking treatment or support for fear of stigma or shame, or because their symptoms were “not severe enough.” These women are likely unaware of how normal their symptoms are, or how commonly PPD can affect new mothers. These feelings of isolation, along with a misunderstanding of the nature of PPD, may prevent women from seeking treatment. Working through a variety of partners, including media partners, to raise awareness of the issues and warning signs and to normalize the disorder is critical.
- **Develop more support groups for new mothers statewide.** These can address a range of salient issues, including breastfeeding support and PPD support and awareness. One new mom explained, *“People are turning to social media more but it would be good to connect new moms or moms with young babies to other moms and families in the community. I have heard MANY moms talk about how the Baby Hui saved*

*them from going insane. Things like the Baby Hui allow moms to have a safe space to talk about these issues in a more natural setting. Having a service or a support that is labeled 'PPD' or [that] is solely focused on PPD is stigmatizing."* Broadening the scope of social support to encompass more than just PPD in a peer group setting may also be key to engaging some of the mothers who reported feeling symptoms of PPD, but did not feel it was severe enough to seek treatment.

## 8 Conclusion

Postpartum depression is a serious condition that can have grave implications if not diagnosed and treated. However, as the data in this survey indicate, major barriers to accessing and using existing PPD support resources exist, namely a lack of adequate training for health care providers in the diagnosis and treatment of PPD, a lack of awareness about PPD resources, and the persistent perception or feeling of stigma or shame associated with this common mental health disorder.

However, with relatively simple interventions, such as increased education for pregnant women and new mothers through classes and parent support groups, as well as increased training for health care providers in how to address and treat PPD in a culturally-appropriate and consistent fashion, it is possible to improve access to, and use of, support resources.

In order to successfully implement an even standard of care, a strong cross-collaborative partnership among providers, their training institutions, government and community support agencies must be in place throughout the state. Providing women with educational information in advance of giving birth is critical to helping self-identify and self-report PPD symptoms without fear of shame or stigma. Providers must also be willing and able to routinely screen their patients/clients for PPD symptoms, and feel adequately trained to provide treatment options or referral pathways. Finally, an essential component is ensuring equitable access to care throughout the state. As most parents and providers were unable to identify PPD support resources in their communities, there is either an absence of services or a lack of sufficient marketing of available resources. Lastly, peer support groups for new mothers offer a relatively cost-effective option that can easily be replicated in communities statewide.

HMHB intends to share these findings and recommendations widely. As part of its role in the Perinatal Advocacy Network, a partner with the DOH, as well as a workgroup leader with the Maternal and Infant Health Collaborative for "The First 1,000 Days," HMHB intends to work to develop comprehensive strategies such as the ones described above that can be accomplished through a variety of partnership activities.

HMHB looks forward to the opportunity to build on these findings collectively with DOH and Hawaii's perinatal provider community.

## 9 Appendix—Summary Tables of Parents’ and Providers’ Responses on Postpartum Depression (PPD) Support Resources in Hawaii

### 1. Parent Responses

#### 1.1. Parent Demographics

Q. What island do you live on?

*Table 1. Parent participants’ islands of residence*

<b>Islands</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 112)</b>
Oahu	94	83.9
Hawaii	9	8.0
Maui	5	4.5
Kauai	3	2.7
Molokai	1	0.9
Lanai	0	0.0

Q. Which of the following languages do you speak at home? Check all that apply.

*Table 2. Languages other than English spoken by parent participants*

<b>Languages</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 29)</b>
Hawaiian	6	20.7
Spanish	5	17.2
Japanese	3	10.3
Chinese	2	6.9
Ilocano	2	6.9
Korean	2	6.9
Portuguese	2	6.9
Tagalog	2	6.9
Vietnamese	2	6.9
Chamorro	1	3.4
Thai	1	3.4
Tokelauan	1	3.4

Participants were able to choose more than one option.

Q. What races and/or ethnicities do you identify as? Check all that apply.

*Table 3. Parent participants' self-identified races and ethnicities*

<b>Races/ethnicities</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 112)</b>
White	68	60.7
Chinese	27	24.1
Japanese	20	17.9
Hawaiian	19	17.0
Filipino	17	15.2
Hispanic	9	8.0
Black	6	5.4
Korean	6	5.4
Samoan	4	3.6
Other Asian	4	3.6
American Indian/Native American	4	3.6
Other Pacific Islander	3	2.7
Indian	1	0.9
Middle Eastern	1	0.9
Spanish	1	0.9
Tokelauan	1	0.9
Thai	1	0.9
Vietnamese	1	0.9
Other	1	0.9

Q. What age range do you fall within?

*Table 4. Parent participants' age ranges*

<b>Ages</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 112)</b>
Under 18	0	0.0
18-25 years	11	9.8
26-35 years	60	53.6
Over 35	41	36.6

Q. What is your occupation?

*Table 5. Parent participants' occupations*

<b>Occupations</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 112)</b>
Professional	55	49.1
Stay-at-home parent	18	16.1
Student	12	10.7
Military	1	0.9
None	1	0.9
Preferred not to answer	25	22.3

Q. How many years of education have you had?

*Table 6. Parent participants' education levels*

<b>Education</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 112)</b>
I didn't finish high school	0	0.0
High school diploma or GED	5	4.5
Some college	21	18.8
College degree	53	47.3
Postgraduate degree	32	28.6
Preferred not to answer	1	0.9



Q. What is your household's income level?

*Table 7. Income levels of parent participants' households*

<b>Income</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 112)</b>
\$0-\$24,999	9	8.0
\$25,000-\$49,999	31	27.7
\$50,000-\$99,000	30	26.8
\$100,000-\$149,999	23	20.5
\$150,000 or above	11	9.8
Preferred not to answer	8	7.1

## 1.2 Parent Responses About Postpartum Depression Resources

Q. With your (most recent) child, did your health care provider ever discuss PPD with you?

*Table 8. Parent participants' experience with health care providers discussing PPD with them*

<b>Provider discussed PPD</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 112)</b>
Yes, they discussed it	54	49.1
No, they did not discuss it	34	30.4
I don't know/I'm not sure	7	6.3
Non-response	16	14.3

Q. When did your health care provider FIRST discuss PPD with you?

*Table 9. Time frame that providers discussed PPD with parent participants*

<b>Time frame</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 54)</b>
While I was pregnant	24	44.4
Right after I gave birth (in the hospital or birthing center)	14	25.9
At a well-baby check-up	8	14.8
Post-partum check up	5	9.3
Other	3	5.6

Q. How often did your health care provider discuss PPD with you?

*Table 10. Frequency with which providers discussed PPD with parent participants*

<b>Frequency of discussion on PPD</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 54)</b>
At most prenatal and postpartum visits	27	50.0
Only at the birth or first postpartum visit	17	31.5
Only once during a prenatal visit	4	7.4
I don't remember	3	5.6
Other	3	5.6

Q. Are you aware of any health care providers (including mental health professionals) who provide PPD support on the island where you live?

*Table 11. Parent participants' awareness of health care providers who provide PPD support on the island where they live*

<b>Awareness of PPD support providers</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 112)</b>
Yes	17	15.2
No	59	52.7
I don't know	18	16.1
Non-response	18	16.1

Q. Please describe this resource (who/what, where).

*Table 12. Parent participants' identified health care providers who provide PPD support*

<b>Response</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 17)</b>
Health care provider or hospital	10	58.8
Therapist	7	41.2
Support group	2	11.8

Participants could choose more than one option.

Q. Where did you learn about this resource—a friend, a health care provider, etc.?

*Table 13. Parent participants' source of information for health care providers who provide PPD support*

<b>Response</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 17)</b>
Referral from health care provider or hospital	12	70.6
Friend or family member	3	17.6
Unsure/I don't remember	2	11.8
Internet	1	0.9

Participants could choose more than one option.

Q. When did you first learn about it?

*Table 14. Time frame in which parent participants learned about resources*

<b>Response</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 43)</b>
Before pregnancy	5	29.4
During pregnancy	6	35.3
After pregnancy	6	35.3

Q. Have you ever received patient education materials (pamphlets, handouts, etc.) about PPD?

*Table 15. Parent participants receiving PPD patient education materials*

<b>Received PPD patient education materials</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 112)</b>
Yes	50	44.6
No	27	24.1
I don't know	15	13.4
Non-response	18	16.1

Q. Where did you learn about this resource—a friend, a health care provider, etc.?

*Table 16. Parent participants' source of PPD education materials*

<b>Response</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 50)</b>
Health care provider/OB/GYN	24	48.0
Hospital	20	40.0
WIC or other community health care provider	9	18.0
Other	6	12.0
Pediatrician	2	4.0

Participants could choose more than one option.

Q. To your knowledge, what are some of the challenges to accessing PPD support resources in your community? Check all that apply.

*Table 17. Parent participants' identified challenges to accessing PPD support resources*

<b>Challenges</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 112)</b>
Cultural stigma	36	32.1
Support programs aren't available	30	26.8
Lack of insurance/ability to pay	30	26.8
Lack of trained providers	28	25.0
Transportation isn't available	18	16.1
Materials or support not available in appropriate language	11	9.8
Lack of information or awareness in the community	4	3.6
Lack of time, inquiry, or encouragement to talk about it during routine provider visits	4	3.6
I don't know/not sure	40	35.7
Non-response	22	19.6

Participants could choose more than one option.

Q. To your knowledge, what are the main reasons women do not access PPD resources or support? Check all that apply.

*Table 18. Parent participants' identified reasons women don't access PPD support resources*

<b>Challenges</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 112)</b>
Didn't feel like symptoms were severe enough	68	60.7
Felt embarrassed/ashamed to seek help or support	65	58.0
Didn't know where to find support or information	52	46.4
Couldn't afford/insurance wouldn't cover PPD support	26	23.2
There were no local resources for PPD support	18	16.1
Did not have transportation to support services	16	14.3
Not applicable	9	8.0
Other	3	2.7
Non-response	22	19.6

Participants could choose more than one option.

Q. What PPD resources would you like to see more widely available where you live? Check all that apply.

*Table 19. PPD resources parent participants would like to see more widely available*

<b>Desired resources</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 112)</b>
Postpartum screening for PPD	64	57.1
Private counseling	59	52.7
Health care provider support	58	51.8
Support groups	54	48.2
Hotlines (such as MothersCare Line)	41	36.6
Home visitors	38	33.9
Classes	36	32.1
Community/nonprofit services	34	30.4
Pamphlets and other fact sheets	30	26.8
Culturally-appropriate information	27	24.1
Resources/materials in languages other than English	12	10.7
I don't know/not sure	3	2.7
More mental health professionals trained to treat PPD	2	1.8
Non-response	22	19.6

Participants could choose more than one option.

## 2. Provider Responses

### 2.1 About the Providers

Q. What is your primary area of practice?

Table 20. Types of providers who participated

Provider types	Frequency of responses	Percentage of respondents (n = 40)
Registered nurse	11	27.5
Nonprofit/community advocacy	6	15.0
Health educator	5	12.5
Home visitor	5	12.5
OB/GYN	4	10.0
Lactation consultant	4	10.0
Certified nurse midwife or certified professional midwife	2	5.0
Family practice	1	2.5
Mental health professional	1	2.5
Support group facilitator	1	2.5

Q. Where do you primarily deliver care? Check all that apply.

Table 21. Venues where provider participants offer care

Care venue	Frequency of responses	Percentage of respondents (n = 40)
Community health center/local medical center	19	47.5
In-home	11	27.5
Hospital	9	22.5
Community or nonprofit organization	9	22.5
Private practice clinic	2	5.0
Birth center	2	5.0

Participants were able to provide multiple answers.

Q. What island(s) do you work on? Check all that apply.

*Table 22. Islands where provider participants offer care*

<b>Islands</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 40)</b>
Oahu	19	47.5
Hawaii	15	37.5
Maui	5	12.5
Kauai	5	12.5
Lanai	1	2.5
Molokai	2	5.0

Participants were able to provide multiple answers.

## 2.2 Patient Demographics

Q. The majority of your clients/patients fall within what age range?

*Table 23. Provider participants' patients' age ranges*

<b>Ages</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 40)</b>
Under 18	7	17.5
18-25 years	22	55.0
26-35 years	8	20.0
Over 35	3	7.5

Q. The majority of your patients/clients fall within what income level ("SES," or socioeconomic status)?

*Table 24. Provider participants' patients' SES*

<b>SES</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 40)</b>
High SES	1	2.5
Middle SES	7	17.5
Low SES	32	80.0



Q. The majority of your clients primarily speak which of the following languages? Check all that apply.

*Table 25. Languages spoken by providers' patients*

<b>Languages</b>	<b>Frequency of responses</b>	<b>Percentage of respondents (n = 40)</b>
English	40	100.0
Chuukese	16	40.0
Marshallese	15	37.5
Ilocano	9	22.5
Tagalog	9	22.5
Samoan	8	20.0
Spanish	5	12.5
Chinese	2	5.0
Japanese	2	5.0
Korean	2	5.0
Hawaiian	1	2.5
Vietnamese	1	2.5

Participants were able to provide multiple answers.

### 2.3 Providing Postpartum Depression Support

Q. Regarding PPD screening, support and/or treatment:

Table 26. Provider participants as PPD support

PPD support	Frequency of responses	Percentage of respondents (n = 40)
I do not screen for PPD, but can refer patients/clients to outside resources, if needed	12	30.0
I screen patients/clients for PPD, but refer out for additional counseling and/or treatment	10	25.0
I screen patients/clients for PPD and provide support, including counseling and treatment	6	15.0
I do not screen for PPD, and do not refer patients/clients to any outside resources	1	2.5
Non-response	11	27.5

Q. As a health care provider, do you feel like you've received adequate training in PPD screening tools, support and/or treatment?

Table 27. Provider participants' perceptions of their PPD support training

Perceptions	Frequency of responses	Percentage of respondents (n = 40)
No	13	32.5
Yes, but I could use additional training	10	25.0
Yes	5	15.5
I don't know	1	2.5
Non-response	11	27.5

Q. In thinking about PPD support resources on the island(s) where you work, what specific resources come to mind? Please provide examples.

Table 28. Provider participants' identified PPD support resources

Resource category and responses	Respondents (n = 40)
Private counseling	9 (22.5%)
<ul style="list-style-type: none"> <li>• Psychiatrist</li> <li>• Community government or nonprofit services</li> <li>• Sasha Williams</li> <li>• Adult Mental Health Division (DOH)</li> <li>• Private therapist</li> <li>• Psychologists</li> <li>• Counselors</li> </ul>	
Community health centers/local medical centers	9 (22.5%)
<ul style="list-style-type: none"> <li>• KKV</li> <li>• Primary care physician</li> <li>• Bay Clinic</li> <li>• In-house behavioral health</li> <li>• WIC</li> <li>• All hospitals</li> <li>• Personal providers are used as a starting point for referrals</li> </ul>	
Hotlines or other support lines:	8 (20.0%)
<ul style="list-style-type: none"> <li>• Behavioral Health Services</li> <li>• 211</li> <li>• Parent Line</li> <li>• 832-3100 ACCESS line</li> <li>• NEST</li> </ul>	
Pamphlets and other fact sheets	6 (15.0%)
<ul style="list-style-type: none"> <li>• HMHB</li> <li>• HMHB's MothersCare</li> <li>• American College of Nurse Midwives' <i>Share With Women</i></li> <li>• WIC</li> <li>• Postpartum units at hospital</li> <li>• HRSA booklet <i>Depression During and After Pregnancy</i></li> </ul>	

Table 28, cont. Provider participants' identified PPD support resources

Support groups, online or in person	5 (12.5%)
<ul style="list-style-type: none"> <li>• Breastfeeders of Oahu</li> <li>• Badass Breastfeeders</li> <li>• La Leche League</li> <li>• Mother support groups listed in Parent Line</li> </ul>	
Community, government, or nonprofit services	4 (10.0%)
<ul style="list-style-type: none"> <li>• Family Support Services</li> <li>• Catholic Charities</li> <li>• Adult Mental Health Division (DOH)</li> <li>• WIC</li> </ul>	
Websites	1 (2.5%)
Other	1 (2.5%)
<ul style="list-style-type: none"> <li>• Primary care physician</li> <li>• OB/GYN</li> </ul>	
I don't know	7 (17.5%)
<ul style="list-style-type: none"> <li>• Clients would have to ask their primary care physician</li> </ul>	
Non-response	15 (37.5%)

Q. Do you feel that women of all income levels have access to PPD support in Hawaii?  
Please explain.

*Table 29. Provider participants' perceptions of the PPD support and treatment available among varying income levels*

Perceptions	Frequency of responses	Percentage of respondents (n = 40)
No	10	25.0
Yes	7	17.5
I don't know	8	20.0
Non-response	15	37.5

Q. What are some barriers to increasing access to and use of PPD resources on the island(s) where you work? Check all that apply.

*Table 30. Provider participants' identified barriers to increasing access to and use of PPD support resources*

<b>Barriers</b>	<b>Frequency of response</b>	<b>Percentage of respondents (n = 40)</b>
Lack of trained providers	16	40.0
Lack of PPD-specific support groups or resources	15	37.5
Cultural stigma	12	30.0
Lack of PPD awareness among providers	12	30.0
Patients/clients not interested or do not follow up on initial support	11	27.5
Inefficient/inconsistent screening or lack of screening tools for PPD	11	27.5
Funding for increasing support programs isn't available	9	22.5
Materials or support not available in appropriate language (please explain in the box below)	9	22.5
People live far away from health care services and don't have easy access to transportation	8	20.0
Lack of insurance/ability to pay	6	15.0
The needs outweigh the number/availability of resources	4	10.0
Non-respondents	15	37.5

Participants could choose more than one option.

Q. In your opinion, what resources would be helpful in improving access to PPD support and treatment? Check all that apply.

*Table 31. Provider participants' identified PPD support resources that would help improve access to care*

<b>Resources</b>	<b>Frequency of response</b>	<b>Percentage of respondents (n = 40)</b>
Additional training for health care providers	20	50.0
More counselors or providers specializing in PPD support	17	42.5
Support groups	17	42.5
Hotlines (such as MothersCare Line)	15	37.5
Pamphlets	13	32.5
Enhanced insurance coverage for PPD support services	13	32.5
Websites with local information (such as Healthy Mothers Healthy Babies)	12	30.0
Non-response	15	37.5

Participants could choose more than one option.