

# Making Connections:

Understanding Women's Reasons for Not Enrolling in WIC during Pregnancy California 2010-2012





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## **Contents**

Ξ>	ecutive summary	
n	troduction	1
V	ethods	2
ŝι	ımmary of WIC eligible nonparticipants	6
3	easons for not enrolling in WIC during pregnancy	<u>c</u>
	Did not think they would qualify	10
	Perceived lack of need for WIC	14
	Did not know about WIC	17
	Access issues: Could not get to WIC	20
	Access issues: Application or telephone barriers	23
	Had a negative view of WIC	26
٥,	opulation characteristics and reasons reported by subgroups of eligible nonparticipants	28
	White women	30
	US-born Hispanic women	31
	Foreign-born Hispanic women	32
	Foreign-born Asian/Pacific Islander women	33
	Black women	34
	US-born Asian/Pacific Islander women	35
	American Indian/Alaska Native women	36
	Women with Medi-Cal for prenatal care	37
	Women with private insurance for prenatal care	38
	Women with CalFresh during pregnancy	39
	Women who were food insecure during pregnancy	40
	First time moms	41
	Women who had a prior live birth	42
	Adolescents, ages 15-19	43
	Women with incomes above poverty and at least some college education	44
20	onclusion	

# **Appendices**

Technical documentation

References

**Detailed tables** 

California statewide tables

Characteristics of women by WIC status for population subgroups

Characteristics of women reporting each reason for not participating in WIC for population subgroups

#### **List of Tables**

- Table 1. Characteristics of women according to WIC status during pregnancy
- Table 2. Reasons for not enrolling in WIC during pregnancy among ENPs in the 10 counties with the most births

# **List of Figures**

- Figure 1. WIC participation questions on the MIHA survey
- Figure 2. Categorization of MIHA questionnaire response options and write-in themes
- Figure 3. WIC status determination among California resident women with a live birth, 2010-2012
- Figure 4. Reasons for not enrolling in WIC during pregnancy
- Figure 5. Race/ethnicity among women who did not think they would qualify for WIC
- Figure 6. Prevalence of not thinking they would qualify for WIC by race/ethnicity
- Figure 7. Prenatal insurance among women who did not think they would qualify for WIC
- Figure 8. CalFresh participation among women who did not think they would qualify for WIC
- Figure 9. Income and hardships among women who did not think they would qualify for WIC
- Figure 10. Race/ethnicity among women who did not think they needed WIC
- Figure 11. Hardships among women who did not think they needed WIC
- Figure 12. Maternal risks among women who did not think they needed WIC
- Figure 13. Race/ethnicity among women who did not know about WIC
- Figure 14. Prevalence of not knowing about WIC by language spoken
- Figure 15. Parity among women who did not know about WIC
- Figure 16. Race/ethnicity among women who could not get to WIC
- Figure 17. Public program participation among women who could not get to WIC
- Figure 18. Income and hardships among women who could not get to WIC
- Figure 19. Race/ethnicity among women with application or telephone barriers
- Figure 20. Education among women with application or telephone barriers
- Figure 21. Parity among women with application or telephone barriers
- Figure 22. Race/ethnicity among women with a negative view of WIC
- Figure 23. Parity among women with a negative view of WIC
- Figure 24. Reasons for not enrolling in WIC among White ENPs
- Figure 25. Reasons for not enrolling in WIC among US-born Hispanic ENPs
- Figure 26. Reasons for not enrolling in WIC among foreign-born Hispanic ENPs
- Figure 27. Reasons for not enrolling in WIC among foreign-born API ENPs
- Figure 28. Reasons for not enrolling in WIC among Black ENPs
- Figure 29. Reasons for not enrolling in WIC among US-born API ENPs
- Figure 30. Reasons for not enrolling in WIC among AI/AN ENPs
- Figure 31. Reasons for not enrolling in WIC among ENPs with Medi-Cal
- Figure 32. Reasons for not enrolling in WIC among ENPs with private insurance
- Figure 33. Reasons for not enrolling in WIC among ENPs with CalFresh
- Figure 34. Reasons for not enrolling in WIC among ENPs who were food insecure
- Figure 35. Reasons for not enrolling in WIC among ENPs who were first-time moms
- Figure 36. Reasons for not enrolling in WIC among ENPs who had a prior live birth
- Figure 37. Reasons for not enrolling in WIC among ENPs ages 15-19
- Figure 38. Reasons for not enrolling in WIC among ENPs with higher income and some college

# **Executive Summary**

The California Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) delivers important services to low income pregnant and postpartum women, infants, and children up to the age of five who are found to be at nutritional risk. These services include checks to purchase healthy food, guidance on nutrition and breastfeeding, and linkages to health care and community services. Despite the program's success in achieving high participation, each year more than 50,000 women who are eligible do not enroll in WIC during their pregnancy. These women have risks that could negatively impact their health and the health of their child.

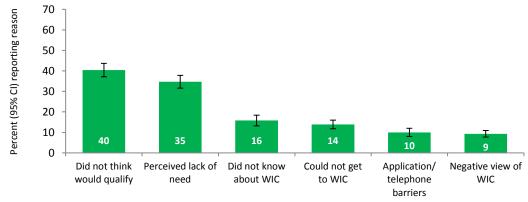
Using 2010-2012 data from the California Department of Public Health's Maternal and Infant Health Assessment (MIHA) survey, this report identifies reasons why eligible women do not enroll in WIC during pregnancy and the characteristics of women reporting each reason. The percent of women reporting each reason is shown for the 10 counties with the most births in California and for subgroups by race/ethnicity and other characteristics.

Women were classified as eligible nonparticipants (ENPs) if they had a live birth; were not enrolled in WIC during pregnancy (as reported in the WIC program participant database, the WIC Management Information System [WIC MIS]); and either had Medi-Cal listed on the birth certificate as the payer for prenatal care or delivery, or self-reported an income in MIHA that was less than or equal to 185% of poverty. Approximately 53,600 women per year were eligible for WIC but did not enroll during pregnancy. These women accounted for 16% of the 327,800 women with a live birth who were eligible for WIC per year. ENPs are a diverse group of women in terms of race/ethnicity, language spoken at home, maternal age, parity, and education. They commonly experience health and social risks such as food insecurity (19%), poverty (49%), self-reported poor health (24%), or dietary risk (95%).

# Reasons for not enrolling in WIC

The two leading reasons for not enrolling in WIC during pregnancy were: not thinking they would qualify (40%) and not thinking they needed WIC (35%). Reasons less commonly reported were not knowing about WIC (16%) and difficulty getting to WIC (14%). The least common reasons were application or telephone barriers (10%) and having a negative view of WIC (9%). Few women reporting either of the least common reasons cited it as their only reason for not participating in WIC.

#### Reasons for not enrolling in WIC during pregnancy



Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars. The percentage for all reasons reported exceeds 100%: women could report more than one reason for not enrolling in WIC.

### Characteristics of women reporting leading reasons

While the characteristics of women reporting each reason varied, there were some notable commonalities. White women and English speakers made up the largest groups of ENPs, and in general these were the largest groups reporting each reason for not participating in WIC during pregnancy.

Women with private insurance made up approximately half of the women who did not think they qualified for WIC (51%), did not think they needed WIC (42%), and did not know about WIC (46%). These women may not learn about WIC from their prenatal care providers, who may be unaware of WIC, the program's eligibility criteria, or the range of benefits offered.

In addition, more than one in three women who did not think they qualified for WIC or did not know about it were enrolled in Medi-Cal during pregnancy. Despite automatically qualifying for WIC through their Medi-Cal participation, this large proportion of ENPs did not have basic information about WIC or its eligibility criteria.

#### Did not think they would qualify for WIC

While not thinking they would qualify was a leading reason reported among all racial/ethnic groups, Hispanic and Asian/Pacific Islander (API) women were more likely to report this reason. Additionally, women who did not think they qualified experienced relatively lower levels of poverty, but they commonly reported other hardships, including food insecurity and difficulty living on their income. WIC benefits could have helped these women stretch their budgets.

#### Perceived lack of need for WIC

Women who thought they did not need WIC reported relatively lower levels of financial hardships, including food insecurity, poverty and difficulty living on their income. However, many women who thought they did not need WIC reported dietary, health, psychosocial and substance use risks similar to other ENPs. These women may not be aware of how WIC benefits could improve their health and the health of their infants. Many women who thought they did not need WIC participated in Medi-Cal or CalFresh (food stamps/Supplemental Nutrition Assistance Program), suggesting that they were willing to participate in other public programs.

#### Did not know about WIC

Foreign-born API women made up one in four women who did not know about WIC. Compared to English speakers, non-English speakers were more likely to report not knowing about WIC. These women may not have access to information about WIC or may not understand the information that is shared with them. Additionally, first-time moms were more likely to not know about WIC. They may have had fewer opportunities to learn about WIC through their providers or social networks than women who had experienced a previous pregnancy.

#### **Could not get to WIC**

ENPs who had a hard time getting to WIC had lower educational attainment, more children, and a high level of financial hardships, including poverty, food insecurity, and difficulty living on their income. They reported a high level of participation in other public programs including CalFresh and Medi-Cal, which do not require in-person participation. Women with few resources and who may be participating in other public programs may have multiple competing needs, making participation in WIC difficult.

#### **Conclusion**

The results presented in this report describe why each year, thousands of vulnerable women who are eligible do not enroll in WIC during pregnancy. These findings suggest a number of opportunities for outreach to ENPs. WIC could continue ongoing efforts to strengthen its partnerships with Medi-Cal and CalFresh, and develop new relationships with private insurers to educate women about the WIC program, including eligibility criteria, program benefits, and information about the application process. Additionally, in order to reach ENPs, all prenatal care providers, but particularly those serving privately insured women, could be educated about the impacts of food insecurity on health, and encouraged to provide information about WIC to their patients. Messages emphasizing the health benefits of WIC may resonate with women who are food secure and have fewer financial hardships. Foreign-born Asian women, non-English speakers, and first-time moms lack the most basic information about WIC and would benefit from enhanced outreach using linguistically and culturally appropriate strategies. Finally, the most vulnerable ENPs would benefit from efforts to reduce logistical barriers in getting to WIC.



"These results can be used by state and local WIC program directors to customize outreach strategies."

### Introduction

The California Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) helps low income pregnant and postpartum women, infants, and children up to the age of five who are found to be at nutritional risk by providing healthy food, nutrition education, breastfeeding support, and linkages to health care and community services. Compared to other states, California enrolls a high proportion of eligible women during pregnancy. Despite the program's success, each year over 50,000 women who are eligible do not enroll in WIC during their pregnancy. These women are vulnerable to financial hardships and health risks that could negatively impact their health and the health of their child. Enrolling these women during pregnancy, particularly during its early stages, could benefit both mother and child.<sup>3-6</sup>

This report provides new insights into why eligible women do not participate in WIC during pregnancy using data from the Maternal and Infant Health Assessment (MIHA) survey. The results are presented in two sections. First, reported reasons among all statewide eligible nonparticipants (ENPs) are summarized, with a detailed description of each reason and the characteristics of women reporting each reason. Second, the main reasons for not enrolling in WIC are summarized for selected subgroups of WIC ENPs.

The characteristics of ENPs and reported reasons for not participating in WIC described in this report complement previous work that estimated the number of prenatal women eligible for WIC and identified the geographic location of WIC ENPs. Together, these results can be used by state and local WIC program directors to customize outreach strategies to address specific barriers among their respective ENP populations.

# **Background**

Previous studies examining nonparticipation in nutrition or other public programs, such as WIC, SNAP (Supplemental Nutrition Assistance Program), and school lunch programs suggest that the decision to participate is based on the evaluation of costs and benefits of participation. Costs include the time, effort, and financial burden (e.g., transportation, child care, lost wages) involved in learning about and participating in programs, as well as important psychosocial costs such as stigma. Benefits are assessed in terms of the financial benefit, desirability of resources, and other non-tangible benefits such as social support. 9-13 Additional factors identified by prior research studies to explain nonparticipation include lack of information about the program in general, or its application process and benefits, and outright logistical barriers to participation. 9,11,14 Researchers have also focused on the role played by social networks in mediating stigma and access to information. 15,16 Finally, special attention has focused on the specific challenges experienced by immigrants related to costs, logistical barriers, and access to information.<sup>17</sup> While not all of these barriers to WIC participation were measured in the MIHA survey, the constructs described above shaped data analysis and interpretation in the current study. The results of a previous qualitative study commissioned by the California WIC program that identified the barriers to participation among ENPs and described satisfaction with the California WIC program among WIC participants <sup>16</sup> were also used to help interpret the results presented in this report.

### **Methods**

This report uses 2010-2012 data from the MIHA survey to describe women's reasons for not enrolling in WIC during pregnancy. The characteristics of women reporting each reason are described among all ENPs in California. The percent of women reporting each reason are shown for the 10 counties with the most births in California and for subgroups by race/ethnicity and other selected characteristics.

#### Data source

MIHA is an annual statewide-representative survey of California women with a live birth conducted by the California Department of Public Health and the University of California, San Francisco. MIHA participants are English- or Spanish-speaking women ages 15 years and older. Each year from 2010-2012, close to 7,000 women participated in MIHA, and the response rate was approximately 70%. MIHA data are weighted to represent all women in California with a live birth during each survey year, excluding women who are non-residents, have a multiple birth of greater than three infants, or have a missing address on the birth certificate. MIHA data are collected by mail, with telephone follow-up to non-respondents. Women are sent a questionnaire in English or Spanish by mail, and non-respondents receive a reminder letter and a second questionnaire. Those who do not respond by mail are followed up by phone. Women who speak other languages may have lower participation in the survey. The MIHA survey collects information about maternal and infant experiences before, during, and shortly after pregnancy. Survey responses are linked to each woman's data from her baby's birth certificate.

#### **WIC status**

Women who were eligible for WIC during pregnancy were identified in the vital statistics birth file, MIHA survey and WIC program participant database, the WIC Management Information System (WIC MIS). Birth records were linked to WIC MIS to determine enrollment during pregnancy. Women were categorized as WIC participants if they had a prenatal record in WIC MIS; as eligible nonparticipants if they were not found in WIC MIS but had Medi-Cal for prenatal care or delivery on the birth certificate, or if they self-reported an income at or under 185% of the Federal Poverty Guideline (FPG) on MIHA; or as ineligible if they had another source or no insurance for prenatal care and delivery, and self-reported income above 185% FPG. For a more detailed description of linkage methods, see the technical documentation in the appendices.

# MIHA survey question on reasons for not enrolling in WIC during pregnancy

The 2010-2012 MIHA questionnaire asked all women if they were on WIC at any time during their most recent pregnancy (Figure 1). Women who answered "no" were directed to a follow up question on reasons for not enrolling in WIC during pregnancy, which included a list of response options and a space to provide a write-in response. Women could select all reasons that applied to them.

The reason responses listed on the questionnaire and write-in themes were combined into general categories describing reasons for WIC nonparticipation during pregnancy. These general categories were based on categorization in prior research on nonparticipation in public programs, applicability to strategies for increasing enrollment in WIC during pregnancy, and having a sufficient number of ENPs in each category for data analysis to examine their characteristics. Figure 2 describes response options and write-in themes included in each reason category. See the technical documentation in the appendices for a description of the coding method and a detailed table describing the distribution of women selecting each response option and write-in theme within each reason category.

#### Figure 1. WIC participation questions on the MIHA survey

Were you on WIC at any time during your most recent pregnancy? (WIC is the Women, Infants and Children supplemental nutrition program.) Yes → Skip to question xx No Why were you not on WIC during your pregnancy? Check ALL that apply. I never heard of WIC I didn't think I would qualify for WIC I did not need WIC I couldn't get to WIC when they were open I couldn't get through on the phone It was too difficult to apply for WIC I used to be on WIC but didn't like it I did not want to use WIC vouchers to shop Other (Please tell us: \_\_\_\_\_

Figure 2. Categorization of MIHA questionnaire response options and write-in themes

Reason category	Existing response option	Write-in theme
Did not think she would qualify	I didn't think I would qualify for WIC	<ul> <li>Did not know WIC covers pregnant women</li> <li>Did not qualify or was disqualified</li> <li>Income too high</li> </ul>
Perceived lack of need	• I did not need WIC	<ul> <li>Other women needed it more</li> <li>Low motivation to enroll</li> <li>Never thought about enrolling</li> <li>Enrolled after pregnancy</li> </ul>
Did not know about WIC	• I never heard of WIC	<ul> <li>Did not know enough about WIC or application process</li> </ul>
Access: Could not get to WIC	• I couldn't get to WIC when open	<ul> <li>Trouble getting there (transportation)</li> <li>Trouble getting there (sick, bed rest, kids, unspecified)</li> <li>No time, busy, working</li> <li>Issues with WIC location (unknown location, too far, unsafe)</li> </ul>
Access: Application or telephone barriers	<ul> <li>I couldn't get through on the phone</li> <li>It was too difficult to apply for WIC</li> </ul>	<ul> <li>Did not get referral from doctor</li> <li>Did not have ID or paperwork to apply</li> <li>Moved</li> </ul>
Negative view of WIC	<ul> <li>I used to be on WIC but didn't like it</li> <li>I did not want to use vouchers to shop</li> </ul>	<ul> <li>Embarrassment</li> <li>Did not like the requirements</li> <li>Did not like WIC foods</li> <li>Did not want to be on WIC</li> <li>Did not want government assistance</li> <li>Long wait/long lines</li> <li>Issues with WIC staff</li> </ul>

#### Data analysis

The first part of this report is based on MIHA data from 2010-2012 to describe the characteristics of all women in California with a live birth by WIC status (n=20,200). The second part of the report is restricted to ENPs and provides the percentages of ENPs reporting each reason for not enrolling in WIC during pregnancy (n=4,185). ENPs who did not report any reason were excluded from analysis of reasons (n=677).

Reasons for not enrolling in WIC during pregnancy were further examined by describing the characteristics of women reporting each reason, including the size and characteristics of the population reporting each reason. This information is complemented by a comparison of the prevalence of each reason reported by women in population subgroups, in order to identify groups of women more likely to report a particular reason. Differences in reporting each reason by population subgroups were tested using multivariate logistic regression.

Finally, a set of profiles for population subgroups was developed to facilitate outreach efforts to these groups. Each profile describes population characteristics and their reasons for not participating in WIC. Overall findings are summarized in the body of the report. Detailed tables and adjusted odds ratios of subgroups reporting each reason are included in the appendices.

All annual population estimates presented in the report are weighted to represent all live births in California, based on a three-year average (2010-2012). The 95% confidence interval is presented in the detailed tables and in bar charts (shown as a thin black line extending above and below the top of each bar), and indicates that there is a 95% chance that the range contains the actual prevalence in the population. All analyses were conducted using SAS 9.3 ProcSurvey methods to account for complex survey design.



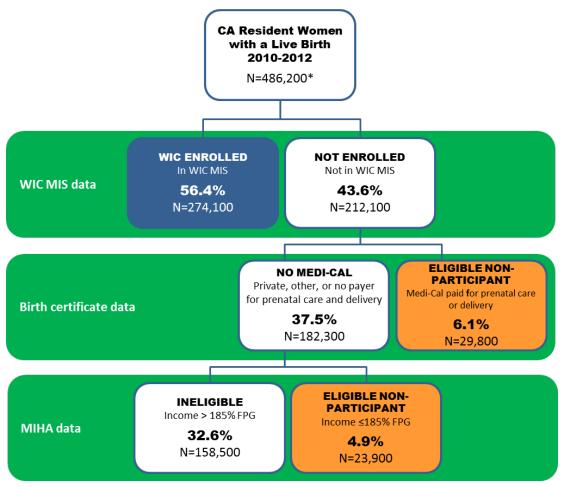
# **Summary of WIC eligible nonparticipants**

#### **Definition**

Women were classified as ENPs if they had a live birth, were not enrolled in WIC during pregnancy (as reported in the WIC MIS database), and either had Medi-Cal for prenatal care or delivery on the birth certificate, or self-reported an income in MIHA that was less than or equal to 185% FPG. Between the years 2010 and 2012, approximately 53,600 women per year were eligible for WIC but did not enroll during pregnancy. These women accounted for 16% of the 327,800 women with a live birth who were eligible for WIC per year.

As shown in the orange boxes in Figure 3, ENPs accounted for 11% of all women with a live birth in California. About 6% were not enrolled in WIC but had Medi-Cal for prenatal care or delivery as reported on the birth certificate, and an additional 5% were not enrolled in WIC and did not have Medi-Cal, but reported an income of 185% or less of the FPG in MIHA.

Figure 3. WIC status determination among California resident women with a live birth, 2010-2012



<sup>\*</sup>The total estimated population excludes women with undetermined WIC status who were not found in WIC MIS, were not on Medi-Cal or low-income, and had missing prenatal care payer, delivery payer, and/or income. Percentages and population estimates (N) are weighted to represent California. Population estimates are the average per year and rounded to the nearest hundred. Population estimates may not add up to total and estimates in figure and text may not align because of rounding.

### Characteristics of women who are eligible but not enrolled

Good nutrition contributes to healthier pregnancy outcomes and all at-risk pregnant women should have equitable access to nutrition programs. A recent study on prenatal WIC participation in 27 states during 2007-2008 showed that WIC ENPs commonly experience health and social risks that have been associated with preterm birth and low birth weight, such as obesity or underweight before pregnancy, a history of poor birth outcomes, poverty, or delayed entry to prenatal care. While risks are not as common among ENPs as they are among WIC participants, both WIC participants and ENPs experience substantially more risks than ineligible women.<sup>1</sup> Efforts to identify and enroll ENPs in WIC, particularly during the early months of pregnancy, can have important benefits for both mother and child.<sup>3-6</sup>

MIHA data shown in Table 1 illustrate a similar pattern of vulnerability among WIC ENPs in California. More than three out of four ENPs experienced at least one financial hardship during pregnancy, including food insecurity, poverty, difficulty living on available income, job loss, or homelessness. Among ENPs, 19% experienced food insecurity, 49% had an income below poverty, and 55% reported difficulty living on their income. Health and social risks were common as well. Almost one quarter of ENPs selfreported at least one indicator of poor health (24%), including diabetes before or during pregnancy, hypertension before or during pregnancy, pre-eclampsia or eclampsia during pregnancy, or fair or poor health before pregnancy. Approximately one third of ENPs (33%) had at least one psychosocial risk (physical or psychological intimate partner violence during pregnancy, prenatal or postpartum depressive symptoms, or lack of practical or emotional support) and 38% reported risky substance use (any smoking before or during pregnancy, any binge drinking before pregnancy or any drinking during pregnancy). Finally, almost all ENPs had at least one indicator of dietary risk (95%), including not taking folic acid daily, unhealthy prepregnancy body mass index (underweight, overweight or obese), or inadequate or excessive weight gain during pregnancy. While financial hardships were more common among WIC participants than ENPs, there were no differences in health and psychosocial risk indices, with the exception of risky substance use, which was more common among ENPs. Both ENPs and WIC participants had more hardships and risks than women ineligible for WIC.

Before pregnancy, 26% of ENPs had Medi-Cal, 41% had private insurance, and 31% were uninsured. During pregnancy, 51% had Medi-Cal, 38% had private insurance, and 7% were uninsured. During pregnancy, a greater percentage of ENPs had private insurance or no insurance, compared to WIC participants. Almost a quarter of ENPs (23%) participated in CalFresh (food stamps/Supplemental Nutrition Assistance Program), substantially lower than among WIC participants.

The WIC ENP population reflects California's unique socio-demographic diversity and large immigrant community. The largest racial and ethnic groups of ENPs were White (36%), US-born Hispanic (23%), and foreign-born Hispanic (17%) women. Smaller groups were foreign-born Asian/Pacific Islander (API) (11%), Black (8%), and US-born API (4%) women. Approximately 2% identified themselves as American Indian or Alaska Native, not exclusive of other races or Hispanic ethnicity (not shown).

While most ENPs spoke English (76%), some spoke Spanish (14%), and Asian or other languages (10%) at home. Close to 70% of ENPs were at least 25 years of age, 61% had at least some college education, 40% were first-time moms, and 51% were married.

Table 1. Characteristics of women according to WIC status during pregnancy

	El	WIC Participant					Ineligible			
	(Eligible via Medi-Cal or Income)									
	%	95% CI	Annual Population Estimate	%	95%	CI	Annual Population Estimate	%	95% CI	Annual Population Estimate
California Total	11	10.4 - 11.7	53,600	56	55.6 -	57.2	274,100	33	31.8 - 33.4	158,500
Socio-Demographic Factors										
Race/ethnicity (BC)										
White	36	33.5 - 39.3	18,900	13	12.2 -	13.9	35,300	54	51.2 - 55.8	82,800
Hispanic US-born	23	20.9 - 26.0	12,100	33	30.9 -	34.3	88,200	14	12.7 - 15.9	22,100
Hispanic foreign-born	17	14.7 - 19.3	8,800	40	37.9 -	41.2	107,100	4	3.6 - 5.4	7,000
Asian/PI foreign-born	11	8.4 - 13.5	5,700	5	4.2 -	5.8	13,500	19	16.9 - 20.9	29,200
Asian/PI US-born	4	2.6 - 4.8	1,900	2	1.2 -	2.0	4,300	6	4.7 - 6.8	8,900
Black	8	6.3 - 9.0	4,000	7	6.9 -	8.0	20,200	3	2.4 - 3.2	4,300
Other	1	0.6 - 1.3	500	1	0.5 -	1.0	2,000	< 1	0.1 - 0.4	400
Language spoken at home										
English	76	73.3 - 78.9	40,300	58	55.9 -	59.3	156,500	82	80.4 - 84.3	129,300
Spanish	14	11.9 - 16.1	7,400	36	34.3 -	37.6	97,600	3	1.9 - 3.2	4,000
Asian or other	10	7.8 - 12.2	5,300	6	5.6 -	7.3	17,500	15	13.2 - 17.0	23,700
Maternal age (BC)										
15-24	32	29.2 - 34.4	17,000	42	40.7 -	44.2	116,300	4	3.7 - 5.2	7,100
25-34	53	49.9 - 56.0	28,400	46	44.2 -	47.7	126,000	65	62.7 - 67.0	102,800
35+	15	12.7 - 17.8	8,200	12	10.5 -	12.7	31,800	31	28.5 - 32.8	48,600
Maternal education										
HS diploma (GED) or less	39	36.6 - 42.4	21,100	62	60.2 -	63.6	168,800	5	4.2 - 5.9	8,000
Any college or more	61	57.6 - 63.4	32,300	38	36.4 -	39.8	103,800	95	94.1 - 95.8	150,300
Parity (BC)										
First live birth	40	36.7 - 42.8	21,300	36	34.3 -	37.7	98,600	46	43.8 - 48.3	72,900
Second live birth or more	60	57.2 - 63.3	32,300	64	62.3 -	65.7	175,500	54	51.7 - 56.2	85,500
Marital status										
Married	51	48.1 - 54.1	27,300	39	37.0 -	40.3	105,300	91	89.6 - 92.0	143,700
Not married	49	45.9 - 51.9	26,100	61	59.7 -	63.0	167,200	9	8.0 - 10.4	14,600
<b>Health Insurance Coverage and</b>	d Progran	n Participation	on							
Pre-pregnancy insurance										
Medi-Cal	26	23.4 - 28.0	13,600	42	40.7 -	44.2	114,600	1	0.4 - 1.0	1,100
Private	41	37.5 - 43.6	21,500	20	18.6 -	21.3	53,800	94	92.7 - 94.9	148,300
Uninsured	31	28.2 - 33.8	16,400	35	32.9 -	36.3	93,400	3	1.8 - 3.3	4,000
Other	3	2.0 - 3.5	1,400	3	2.4 -	3.5	8,000	3	2.3 - 3.7	4,700
Prenatal insurance (BC)										
Medi-Cal	51	48.3 - 54.2	27,400	75	73.2 -	76.1	204,300			
Private	38	35.0 - 41.2	20,400	21	19.4 -	22.2	57,000	95	93.7 - 95.6	150,000
Uninsured	7	5.0 - 9.2	3,800	1	0.9 -	1.5	3,400	2	1.1 - 2.0	2,500
Other	4	2.5 - 4.6	1,900	3	2.7 -	3.8	9,000	4	3.0 - 4.6	6,000
CalFresh during pregnancy	23	20.8 - 25.8	12,500	37	35.5 -	38.8	101,100			
Financial Hardships during Pre	gnancy									
Any financial hardship	77	73.9 - 79.2	39,800	89	87.8 -	90.1	232,800	22	19.9 - 23.5	34,100
Income as % of poverty										
0-100%	49	45.8 - 52.1	24,900	70	68.5 -	71.8	176,100			
>100%	51	47.9 - 54.2	26,000	30	28.2 -	31.5	74,900	100 †		158,500
Hard to live on income	55	51.6 - 57.6	29,000	60	58.5 -	62.0	162,000	16	14.4 - 17.7	25,400
Food insecurity										
Food insecure	19	16.5 - 21.4	10,100	29	27.2 -	30.4	78,400	2	1.5 - 2.4	3,000
Food secure	81	78.6 - 83.5	43,300	71	69.6 -	72.8	193,800	98	97.6 - 98.5	155,300
Health and Psychosocial Risk Ir	ndices									
Self-reported poor health	24	21.7 - 26.7	12,700	28	26.5 -	29.7	75,200	18	16.8 - 20.1	29,100
Psychosocial risk	33	29.7 - 35.4	17,300	35	33.7 -		96,300	16	14.6 - 17.9	25,600
Risky substance use	38	35.1 - 40.9	20,200	27	25.6 -		73,100	37	35.2 - 39.5	58,800
Dietary risk	95	93.5 - 97.1	49,200	97	96.1 -		253,600	85	83.6 - 86.8	128,500
Breastfeeding Intention										-,
Breastfeed exclusively	64	61.0 - 66.7	33,200	52	50.4 -	53.9	139,800	76	74.6 - 78.4	119,700
2. Casticca cholasively	0-1	32.0 00.7	33,230	J_	55.7		100,000	, ,	70.4	113,700

Notes: Percent (%), 95% confidence interval (95% CI), and annual population estimates (rounded to the nearest hundred) are weighted to represent all live births in California. Population estimates are a three-year average (2010-2012). Percentages of characteristics are calculated out of women with each WIC status. The California Total percentages of WIC status are calculated out of women for whom WIC status could be identified. Data shown are self-reported in MIHA, unless the variable was from the birth certificate (BC). Definitions of characteristics are in the appendix.

<sup>-</sup> Estimate suppressed because the relative standard error is greater than 50% or fewer than 10 women reported.

† Estimate should be interpreted with caution because the confidence interval (95% CI) is not calculated for an estimate of 100%.

# Reasons for not enrolling in WIC during pregnancy

A summary of the reasons for not enrolling in WIC during pregnancy is shown for ENPs overall (Figure 4). Subsequently, the characteristics of women reporting each reason are presented, and subgroups that are more likely to report each reason are identified. This report places an emphasis on the distribution of characteristics among women reporting each reason in order to ensure that outreach activities are directed towards appropriate subgroups of ENPs in California. Detailed tables are in the appendices.

The two leading reasons reported by ENPs for not enrolling in WIC during pregnancy were thinking they would not qualify (40%, approximately 18,200 women) and believing they did not need WIC (35%, approximately 15,600 women). Reasons less commonly reported by women were not knowing about WIC (16%, approximately 7,100 women), not being able to get to WIC (14%, approximately 6,200 women), experiencing WIC application and telephone barriers (10%, approximately 4,500 women), and holding a negative view of WIC (9%, approximately 4,200 women). Women could report more than one reason for not enrolling in WIC.

The characteristics of women reporting each reason varied, with a few notable exceptions. White women and English speakers constituted the largest proportion of ENPs, and therefore were often the largest groups among women reporting each reason. Across all reasons, there was little variation in the distribution of women by age.

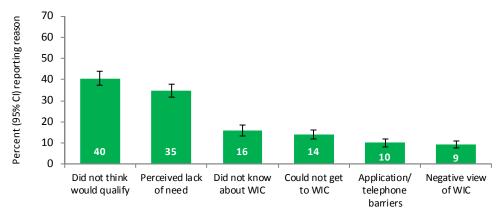


Figure 4. Reasons for not enrolling in WIC during pregnancy

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars. The percentage for all reasons reported exceeds 100%; women could report more than one reason for not enrolling in WIC.

## Did not think they would qualify for WIC

In California, 40% of ENPs did not think they would qualify for WIC (about 18,200 women), even though these women had Medi-Cal for prenatal care or delivery, or their income was at or below 185% of poverty. This was the leading reason for WIC nonparticipation reported by eligible women. In addition to the majority of women who selected the primary option, "I didn't think I would qualify for WIC," a small number of women wrote in that they did not know that pregnant women could participate in WIC, that they did not qualify, or that their incomes were too high for WIC.

Some eligible women may have fewer opportunities to learn about WIC, while others may not think they are the type of women who would qualify because of perceived stigma associated with public program participation.

#### **Demographic characteristics**

The largest racial/ethnic group of women who did not think they would qualify were White, followed by US-born Hispanic and foreign-born Hispanic women (Figure 5). Not thinking they would qualify was a common reason reported among all racial/ethnic groups. When looking within each racial/ethnic group, Hispanic and API women were more likely than White women to report this reason (Figure 6).

Foreign-born women may have less access to information about WIC through their social networks, may be less familiar with social programs in the United States in general, or may think their citizenship status disqualifies them for WIC.

Like ENPs overall, the vast majority of women who did not think they would qualify were English speakers (80%). Women who did not think they would qualify for WIC were older and more were married than ENPs in general: 61% were ages 25-34 years, 15% were ages 35 and older, and 60% were married.

"I thought it was like food stamps or you have to be on welfare." –MIHA Respondent

Figure 5. Race/ethnicity among women who did not think they would qualify for WIC

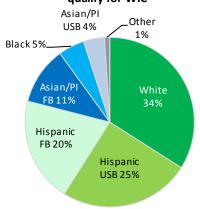
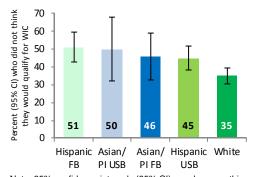


Figure 6. Prevalence of not thinking they would qualify for WIC by race/ethnicity



Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

#### Program participation and health insurance

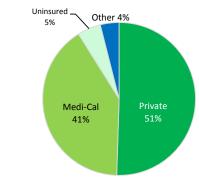
Women who did not think they would qualify had lower participation in public programs compared to ENPs overall. Before pregnancy, only 11% had Medi-Cal, while 56% had private insurance and 30% were uninsured. During pregnancy, only 41% had Medi-Cal and 9% participated in CalFresh, while 51% had private insurance (Figures 7, 8).

Women with private and no insurance before pregnancy were more likely than women with Medi-Cal before pregnancy to think they did not qualify for WIC, and women without CalFresh were more likely to think they did not qualify for WIC than CalFresh participants.

Women not participating in public programs may not be exposed to information about WIC eligibility criteria from their providers or from social networks, and those who enroll in Medi-Cal just for pregnancy may not be familiar with public programs and WIC adjunctive eligibility (i.e., eligibility for WIC based on enrollment in specific other means-tested programs, including Medi-Cal and CalFresh). Health care providers serving privately insured women may be unaware that their patients have low income, may be unaware of the WIC program or eligibility criteria, and may not be in the practice of referring women to WIC, even though it would benefit their patients.

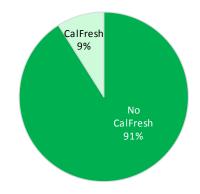
The number of women who did not think they would qualify even though they did participate in Medi-Cal (7,400) or CalFresh (1,700) during pregnancy was substantial. These women are adjunctively eligible for WIC, that is they automatically qualify for WIC due to their participation in Medi-Cal or CalFresh. Basic information about adjunctive eligibility for WIC could be shared with all participating women by the CalFresh and Medi-Cal programs themselves, or women's prenatal care providers.

Figure 7. Prenatal insurance among women who did not think they would qualify for WIC



Note: Sum is greater than 100% because of rounding

Figure 8. CalFresh participation among women who did not think they would qualify for WIC



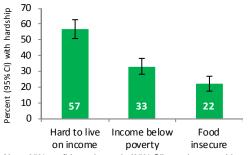
"I thought you had to have to have the baby to qualify. I didn't know you could have WIC when you were pregnant."

-MIHA Respondent

#### Hardships and need

Income and hardships among women who did not think they would qualify for WIC are shown in Figure 9. Fewer women who did not think they qualified had income below poverty (33%), compared to ENPs overall. Despite the lower poverty, women who did not think they qualified reported substantial levels of other hardships, such as food insecurity (22%) and difficulty living on their incomes (57%). Women with income above poverty may not be aware that they qualify based on their income levels. It appears that women with relatively higher incomes are not participating in public programs that could help buffer against hardships such as food insecurity.

Figure 9. Income and hardships among women who did not think they would qualify for WIC



Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

Among food insecure women, 50% did not think they would qualify for WIC. This was by far the most common reason for not participating in WIC for these vulnerable women.

Women with incomes above poverty, married women, and those who do not participate in other public programs might not see themselves as the type of women who could be eligible to receive nutrition assistance. Findings from a previous focus group study in California indicate that additional barriers exist among eligible women who think they do not qualify, such as stigma and low perceived benefits of WIC participation. After learning that they were eligible for WIC, women in that study said that they would likely still not enroll because they wanted to leave the benefits for women with greater need and because they did not think that participation was worth the effort.<sup>16</sup>

"My husband was working and we thought we didn't qualify."
–MIHA Respondent

# DID NOT THINK THEY WOULD QUALIFY KEY POINTS

- Thinking they would not qualify was the leading reason reported by women for not participating in WIC during pregnancy.
- The largest groups of women who did not think they qualified were White and spoke English; many women were older and married.
- Though it was a leading reason reported among all racial/ethnic groups, Hispanic and API women were more likely to think they did not qualify.
- Although women who did not think they qualified experienced lower levels of poverty than ENPs overall, they had other hardships that could have been addressed by WIC. Half of food insecure women did not think they would qualify for WIC.
- Half of the women reporting this reason had private insurance. Prenatal care providers serving privately insured women may not have been aware of or may not have informed their patients about WIC eligibility criteria.
- Women who participated in Medi-Cal and CalFresh may not have been aware that they were adjunctively eligible for WIC.

#### Perceived lack of need for WIC

Over one-third of ENPs (35%) did not think they needed WIC (about 15,600 women). The majority of these women simply reported that they did not need WIC, while a smaller number wrote in responses with similar themes: a low motivation to enroll in WIC, they never thought about enrolling, they did not want to enroll until after pregnancy, and thought other women needed WIC more than them.

Women who thought that they did not need WIC may have lacked information about the program's benefits, may not have valued the benefits that are offered, may not have thought their need was worth the effort of participation, or may have perceived themselves as not needing public assistance in general, despite experiencing challenges that could be addressed by WIC.

#### **Demographic characteristics**

Among women who thought they did not need WIC, 50% were White, 19% were US-born Hispanic and 13% were foreign-born Hispanic (Figure 10). Compared to ENPs overall, more women who thought they did not need WIC spoke English (82%) and had at least some college education (73%).

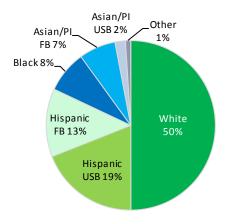
Maternal age, parity and marital status were similar for ENPs overall and women who thought they did not need WIC: 28% were ages 15-24 years, 57% were ages 25-34 years, and 15% were ages 35 years and older. Over half had a prior live birth (54%) and were married (56%).

#### Program participation and health insurance

Nearly half of the women who did not think they needed WIC had private insurance before (48%) and during pregnancy (42%). These women may not learn about WIC benefits from their providers. Also, despite reporting that they did not need WIC, many women participated in other public programs, including Medi-Cal before (21%) and during pregnancy (50%), and CalFresh during pregnancy (15%). This may reflect a greater perceived benefit associated with coverage for the high costs of medical care, but also indicates a willingness to consider public program participation.

"Didn't feel we 'needed help.' Didn't know enough about WIC." –MIHA Respondent

Figure 10. Race/ethnicity among women who did not think they needed WIC



"I only needed the health care. I only wanted to take what assistance I absolutely needed and that was health care for the baby." –MIHA Respondent

#### Hardships and need

Among ENPs, food secure women and women who did not have difficulty living on their income were more likely to think they did not need WIC than women who had these hardships. Women may not be aware of the range of benefits offered by WIC, in addition to food aid.

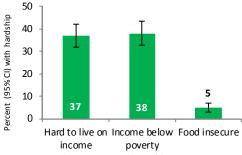
Figure 11 shows hardships among women who did not think they needed WIC. Compared to ENPs overall, financial hardships were lower among women reporting this reason: 37% reported difficulty living on their income, 38% had income below poverty, and only 5% were food insecure. Regardless, these are substantial numbers of women facing financial hardships. Women who were food secure but had other financial hardships may not have been aware that WIC support could help stretch their budget.

Women who thought they did not need WIC reported risks known to negatively impact maternal and infant outcomes that could have been addressed through WIC services or referrals (Figure 12): dietary risk, including unhealthy prepregnancy BMI, inadequate or excessive pregnancy weight gain, not taking folic acid daily, (94%); risky substance use (42%); psychosocial risk (23%); and self-reported poor health (20%). These women may not understand how WIC benefits could improve their health and the health of their infants.

Most of the women who did not think they needed WIC intended to breastfeed exclusively (73%). Women who planned to breastfeed exclusively may not be aware of the breastfeeding support offered by WIC.

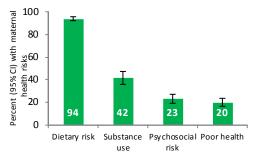
Women with fewer financial hardships and at least some college education may not have seen themselves as the type of women who need assistance. Nearly 20% of women who thought they did not need WIC also thought they did not qualify for WIC. Research shows that perceived lack of need and not thinking one qualifies for services are associated with the stigma of receiving public assistance, <sup>14,16</sup> a main barrier to program participation. <sup>10,13</sup> For those with lower income, the stigma of public program participation can be associated with shame of having a low income or needing to rely on assistance. <sup>13</sup>

Figure 11. Hardships among women who did not think they needed WIC



Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

Figure 12. Maternal risks among women who did not think they needed WIC



Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

"I think I qualified but I didn't need it so I'd rather have those resources go to somebody else who needs it."

-MIHA Respondent

# PERCEIVED LACK OF NEED FOR WIC KEY POINTS

- Perceived lack of need for WIC was the second leading reason for not participating in WIC during pregnancy.
- Half of the women reporting this reason were White, the majority spoke English and most had at least some college education.
- Though food insecurity was rare, and relatively fewer women experienced financial hardships, many women reported health and psychosocial risks that could have been addressed by WIC.
- Many women had private insurance before and during pregnancy and may not learn about WIC benefits from their providers.
- Many women participated in Medi-Cal or CalFresh, suggesting that they were willing to participate in other public programs.
- Women reporting this reason may not have been aware of the range of benefits offered by WIC, or may not have seen themselves as the type of women who needed assistance.

#### Did not know about WIC

Nearly 16% of ENPs did not know about WIC during pregnancy (about 7,100 women). The majority of these women reported that they had never heard of WIC, while a small number of women wrote in that they had heard of WIC, but lacked basic information about the program or how to apply.

Women who did not know about WIC may not have been exposed to information about the WIC program through word of mouth or through existing formal outreach mechanisms, or may not have understood the information that was shared with them.

#### **Demographic characteristics**

Most of the women who did not know about WIC were White, followed by foreign-born API, US-born Hispanic and foreign-born Hispanic women (Figure 13). Though foreign-born API women made up only 11% of the overall ENP population, they were 23% of the women who did not know about WIC.

English speakers made up the majority of ENPs overall and women who reported this reason. Looking within each language group, women who spoke Asian or other languages and Spanish were much more likely to report not knowing about WIC (Figure 14).

Women who speak mainly Spanish, Asian or another language may not understand the available information, or may receive less information and fewer referrals from service providers who are not proficient in non-English languages. Also, foreign-born women may be less familiar with public programs in the United States.

"By the time I found out about WIC, I was too big. I was eight months pregnant." -Foreign-born Asian/Pacific Islander (first-time mom) "I didn't really know about it. I had heard of it, but I didn't know it could apply to me.... I actually saw somebody when I went to apply for Medi-Cal and it never came up, like this is available if you need it."

—MIHA respondent

Figure 13. Race/ethnicity among women who did not know about WIC

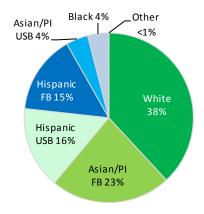
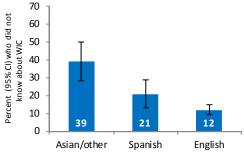


Figure 14. Prevalence of not knowing about WIC by language spoken

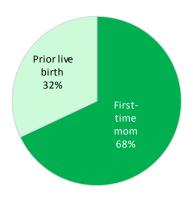


Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

Married women and first-time moms were more likely not to know about WIC than single women and those with a prior live birth. Close to 70% of the women who did not know about WIC were first-time moms (Figure 15). These women may have had fewer opportunities to learn about resources for pregnant women than women that had been pregnant previously, who might have already received information in the hospital after previous deliveries or from their prenatal care provider, pediatrician, or through social networks developed after the birth of a child.

Many women who did not know about WIC were married (65%) and had at least some college education (71%). For these women, not knowing about WIC may result from both lack of information and being less likely to see themselves as public aid participants. They may also think they do not qualify for, or need, WIC.

Figure 15. Parity among women who did not know about WIC



#### Program participation and health insurance

Before and during pregnancy, women with private insurance made up the largest group of women who did not know about WIC. Among women who did not know about WIC, 49% had private insurance before pregnancy, and 46% had private insurance during pregnancy. Women with private insurance are more likely to see private providers who may not offer information on WIC and other social services because they may not be familiar with WIC or with the financial struggles of their patients. Additionally, the large group of women who have contact with Medi-Cal (40%) or CalFresh (11%) during pregnancy should have more opportunities to learn about WIC due to adjunctive eligibility.

# DID NOT KNOW ABOUT WIC KEY POINTS

- Not knowing about WIC was the third most common reason for not participating in WIC during pregnancy.
- The largest groups of women reporting this reason were White and English speakers.
- Foreign-born API women made up one in four of women who did not know about WIC. Additionally, non-English speakers were more likely to not know about WIC. These women may have received fewer referrals from service providers, or may not have understood the information they were given.
- First-time moms were more likely to not know about WIC and may have had limited opportunities to learn about WIC compared to women who had experienced a previous pregnancy.
- Many women with private insurance did not know about WIC. These women may not have received information about WIC from their prenatal care providers.
- Women who participated in Medi-Cal and CalFresh may not have been aware that they were adjunctively eligible for WIC.

### Access issues: Could not get to WIC

Nearly 14% of ENPs experienced access issues getting to WIC (about 6,200 women). Most of these women reported that they could not get to WIC when it was open, and about a third of the women with difficulty getting to WIC wrote in specific reasons, including lack of transportation, feeling sick or requiring bed rest during pregnancy, needing to work or care for older children, not having time or being too busy, being unfamiliar with the WIC site location or feeling that it was not safe.

Women who cannot get to WIC may experience logistical barriers within and outside the WIC system and in their own lives, or may anticipate having such difficulties, and decide that it is just too difficult to participate in WIC. Logistical barriers experienced by women in trying to get to WIC include site location, hours of operation and requirements for in-person eligibility and participation, as well as barriers external to WIC, such as limited public transportation systems or other circumstances that make it difficult for them to access services.

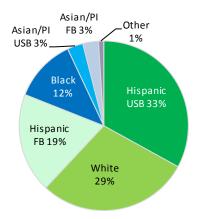
**Demographic characteristics** 

Among women who could not get to WIC, the highest proportion were US-born Hispanic and White women, followed by foreign-born Hispanic and Black women (Figure 16). Compared to White women, US-born Hispanic women were more likely to have difficulty getting to WIC.

Other characteristics related to difficulty getting to WIC were education, marital status, and parity. Compared to ENPs overall, more women who experienced difficulty getting to WIC had a high school diploma or less (58%) and fewer were married (39%). Most women who reported this reason experienced a prior live birth (72%).

"I didn't have time. Every time I
go to work I go there
and they are not open and I get
off of work and
they are already closed."
-MIHA respondent

Figure 16. Race/ethnicity among women who could not get to WIC



"It's hard to go for appointments with kids."
-MIHA respondent

Women with older children may find it difficult to find alternate care or bring children to WIC appointments, particularly if they experience transportation difficulties. Women with less education and single women may have more difficulty navigating systems and may have fewer social resources, such as help getting a ride or childcare.

#### Program participation and health insurance

Compared to ENPs overall, more women who could not get to WIC participated in other public programs. Before pregnancy, 42% had Medi-Cal, 33% were uninsured, and only 22% had private insurance. Figure 17 shows public participation during pregnancy among women who could not get to WIC. During pregnancy, 66% had Medi-Cal and nearly half participated in CalFresh. About a quarter of women who could not get to WIC had private insurance during pregnancy.

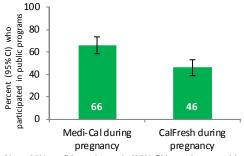
Despite reporting challenges getting to WIC, these women participated in other public programs at very high rates. It appears that some women are choosing other programs over WIC, such as CalFresh, which does not require regular appointments and provides benefits through an electronic benefit transfer card.

#### Hardships and need

Women who could not get to WIC experienced a high level of financial hardships compared to ENPs overall. Almost 90% identified at least one financial hardship, including 71% who reported difficulty living on their income, 68% who had an income below poverty, and 30% who reported food insecurity (Figure 18). Women with few resources who are participating in other public programs may have multiple competing needs, making participation in WIC difficult.

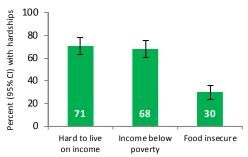
Over 40% of women who could not get to WIC also identified another reason for not participating in WIC, including application problems or not thinking they qualified. Taken together, this indicates that many women with difficulty getting to WIC had other issues accessing WIC, even though they were participating in Medi-Cal and CalFresh at very high rates.

Figure 17. Public program participation among women who could not get to WIC



Note: 95% confidence intervals (95% CI ) are shown as thin black lines extending above and below the bars.

Figure 18. Income and hardships among women who could not get to WIC



Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# ACCESS ISSUES: COULD NOT GET TO WIC KEY POINTS

- Women reported barriers such as WIC site location, hours of operation, limited transportation, lack of childcare and other circumstances that made it difficult to access services.
- US-born Hispanic women were the largest racial/ethnic group with difficulty getting to WIC.
- Women with difficulty getting to WIC had lower educational attainment, more children, and experienced a high level of financial harships.
- Despite reporting challenges getting to WIC, these women participated in other public programs at very high rates.
- Women with few resources who also were participating in other public programs may have multiple competing needs, making participation in WIC difficult.
- More than one third of women with difficulty getting to WIC also reported another reason for not participating, indicating multiple barriers for participation.

## Access issues: Application or telephone barriers

Among ENPs, 10% experienced application or telephone barriers (about 4,500 women). Among these women, most reported that the application process was too difficult, followed by trouble getting through on the phone. A very small number wrote in specific application barriers such as difficulty getting necessary paperwork, obtaining a referral from a doctor, or having recently moved.

Women may experience barriers related to WIC administration such as telephone systems, problems transferring records when women move, and lack of correct information about application requirements. External access barriers may include difficulty obtaining necessary documentation. As with challenges getting to WIC, women may weigh real or perceived application or telephone barriers against expected benefits when deciding not to participate in WIC.

Application or telephone barriers was not a leading reason for any demographic group. Further, more than two thirds of the women with application or telephone barriers also reported another reason for not participating in WIC. For example, over 40% also thought they would not qualify and over 31% could not get to WIC. For women who think they do not qualify, there are few justifications for persisting with a difficult application process. Other women appear to struggle with logistical barriers to multiple aspects of applying for and getting to WIC.

#### **Demographic characteristics**

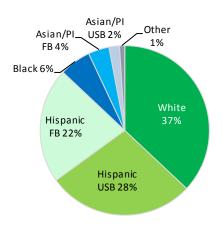
Among women with application or telephone barriers, 37% were White, 28% were US-born Hispanic, and 22% were foreign-born Hispanic (Figure 19).

Education, parity, and marital status were important characteristics related to application and telephone barriers. Compared to ENPs overall, fewer women reporting application or telephone barriers had any college education (40%) or were married (36%). Level of education is shown in Figure 20. Two-thirds had a prior live birth (Figure 21); these women were more likely to report application or telephone barriers compared to first-time moms.

"I needed proof of income and I do not have that." –MIHA respondent

"It was a 45 minute or longer wait on the phone to get an appointment." -MIHA respondent

Figure 19. Race/ethnicity among women with application or telephone barriers



Women with lower education and those caring for older children may have had challenges negotiating the application process or reaching WIC by phone. Those with fewer social resources, such as unmarried women, may have had less access to help overcoming the barriers they encountered.

"I was moving as well and someone told me the whole transferring thing was difficult." -MIHA respondent with Medi-Cal

#### Program participation and health insurance

Compared to ENPs overall, women with application or telephone barriers had similar or higher participation in other public programs, suggesting that they either did not experience or were able to overcome similar barriers when enrolling in other programs. Before pregnancy, 31% participated in Medi-Cal. During pregnancy, 64% participated in Medi-Cal and 26% participated in CalFresh.

While it may be difficult for women who have Medi-Cal or CalFresh, or both, to navigate multiple systems during pregnancy, these women should have access to accurate information about the WIC eligibility criteria and application process. Adjunctive eligibility should ease the enrollment process for them.

Figure 20. Education among women with application or telephone barriers

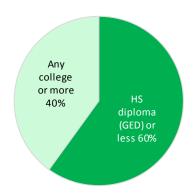
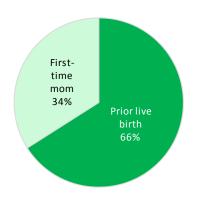


Figure 21. Parity among women with application or telephone barriers



# ACCESS ISSUES: APPLICATION OR TELEPHONE BARRIERS KEY POINTS

- Experiencing application or telephone barriers was not a frequently reported reason for not participating in WIC.
- Most women with application or telephone barriers were White.
- The majority had lower educational attainment and had more children, which may have made negotiating the application process more difficult.
- Many women experiencing application or telephone barriers also reported thinking they
  would not qualify and struggled with not being able to get to WIC. For these women, there
  may have been too many barriers to persist in the application process to make it worth the
  effort.
- However, many women participated in other public programs, indicating that they were able to navigate these programs.

### Had a negative view of WIC

Nearly 10% of eligible women did not participate in WIC because of their negative views of the WIC Program, (about 4,200 women). This was the least frequently reported reason for not participating in WIC. The majority of these women reported that they used to be on WIC but did not like it or that they did not want to use WIC vouchers to shop. A smaller group of women wrote in a variety of other related responses including embarrassment, not liking WIC program requirements, not liking foods available to WIC participants, prior negative experiences with WIC, or simply not wanting to be on WIC or on any government program. These negative views are rooted in negative prior experiences with WIC, stigma, and low expected benefits. Some of these women may not be aware of recent enhancements to the food package.

Over half of the women with a negative view of WIC also reported another reason for not participating in WIC, including 35% who did not think they needed WIC and 24% who did not think they qualified, two other reasons often associated with the stigma of participating in a public program. Having a negative view of WIC was not a leading reason for any demographic group.

#### **Demographic characteristics**

Among women with a negative view of WIC, the largest group was White women, followed by US-born Hispanic and foreign-born Hispanic women (Figure 22). The majority were English speakers (85%).

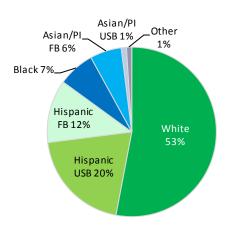
"I just did not feel like going through the whole process all the time. I had stopped and then had to get back on and watch all the videos all the time."

-MIHA respondent

"I did not want to eat the brand of foods provided by WIC.
I like to shop at health food stores and buy highest quality possible."

-MIHA respondent

Figure 22. Race/ethnicity among women with a negative view of WIC

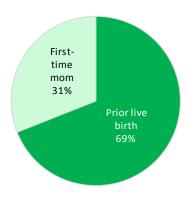


Close to two thirds of women with a negative view of WIC had at least some college education (63%) and 69% had a prior live birth (Figure 23). Because women with a prior live birth are more likely to have had any prior contact with WIC than first-time moms, it follows that more of these women likely had a negative prior experience.

#### Program participation and health insurance

Despite their negative view of WIC, women reporting this reason participated in other public programs at levels similar to or higher than ENPs overall. Specifically, 28% had Medi-Cal before pregnancy, 60% had Medi-Cal during pregnancy, and 25% had CalFresh during pregnancy. Women with Medi-Cal and those who were uninsured before pregnancy were more likely than those with private insurance to have a negative view of WIC.

Figure 23. Parity among women with a negative view of WIC



#### Hardships and need

Women with a negative view of WIC experienced a high level of financial hardships, including income below poverty (48%), food insecurity (16%), and a hard time living on their income (56%), contradicting an assumption that these women have less need for WIC benefits.

#### HAD A NEGATIVE VIEW OF WIC KEY POINTS

- Having a negative view of WIC was the least frequently reported reason for not participating in WIC.
- Most women reported that they used to be on WIC but did not like it or that they did not want to use WIC vouchers to shop.
- The majority of women with a negative view of WIC were White, spoke English and had a prior birth.
- Women with a negative view of WIC reported a high level of financial hardships, indicating that WIC could have assisted them.
- Despite their negative view of WIC, these women participated in other public programs, indicating a willingness to accept some form of public program assistance.

# Population characteristics and reasons reported by subgroups of eligible non participants

In addition to understanding the characteristics of the women reporting different reasons for not enrolling in WIC, it is also important to examine the main reasons by subgroups so that specific outreach and education can be developed and extended to these groups. The following section describes the reasons for not participating in WIC among ENPs for geographic and population subgroups.

Table 2 shows the reasons reported in the 10 counties with the most births in California. Patterns of reasons reported were very similar across the counties, with a few exceptions. The two leading reasons reported statewide and in each of the counties were not thinking they would qualify for WIC and perceived lack of need for WIC. Compared to ENPs in the rest of the state, more women in Riverside County reported difficulties getting to WIC, while in Fresno County fewer reported application or telephone barriers, and in Santa Clara County fewer had a negative view of WIC.

In the subsequent pages, profiles for selected demographic and socioeconomic subgroups of women in California describe the population size, characteristics and reasons for not participating in WIC. Profiles were created for subgroups by race/ethnicity, prenatal insurance, parity, participation in CalFresh, presence of food insecurity, adolescent maternal age, and income above poverty and at least some college education. Detailed tables for each subgroup are in the appendices.

In general, the two leading reasons reported by most subgroups were thinking they would not qualify and thinking they did not need WIC, with some notable exceptions. Women participating in CalFresh and food insecure women each reported not being able to get to WIC as a leading reason; foreign-born API women reported not knowing about WIC as a leading reason.



#### **Table Legend**

- ↑ higher than rest of California
- ◆ lower than rest of California
- no significant difference

Table 2. Reasons for not enrolling in WIC during pregnancy among eligible nonparticipants (ENPs) in the ten counties with the most births.

	All ENPs	Did not think would qualify		F	Perceived lack of need			Did not know about WIC			Could not get to WIC		Application or telephone barriers			Negative view of WIC			
	Annual Population Estimate	%	Annı Populati 95% Cl Estima	on	%	95% CI	Annual Population Estimate	%	95% CI	Annual Population Estimate	%	95% CI	Annual Population Estimate	%	95% CI	Annual Population Estimate	%	95% CI	Annual Population Estimate
California	53,600	40	<b>)</b> 37.1 · 43.6 18,200		35	31.6 - 37.7 1	5,600	16	13.2 - 18.4	7,100	14	11.8 - 15.9	6,200	10	8.0 - 12.1	4,500	9	7.7 - 10.9	4,200
County																			
Alameda	1,800	* 39	<b>9</b> 27.9 - 49.3 600	٠	36	25.0 - 46.4	600	* 22	13.1 - 31.1	400	* 21	12.2 - 29.4	300	* 15	6.4 - 23.6	200	* 7	3.6 - 10.2	100
Fresno	2,000	* 37	<b>7</b> 28.1 - 45.0 600	٠	35	26.9 - 43.5	500	* 11	4.4 - 16.6	200	* 18	11.2 - 25.3	300	<b>↓</b> 4	* 1.3 · 6.6	100	* 7	* 2.2 - 11.0	100
Kern	1,300	* 40	28.8 - 51.7 400	٠	36	25.4 - 47.1	400	* 10	* 2.0 - 17.9	100	* 10	* 2.5 - 17.9	100	* 6	* 1.9 - 9.8	100	15	* 4.2 - 25.7	200
Los Angeles	10,200	* 41	L 28.7 - 53.8 3,300	٠	35	23.7 - 47.2	2,800	* 22	12.1 - 32.7	1,800	* 8	* 1.6 - 14.2	600	* 9	* 0.7 · 16.5	700	* 7	* 2.6 - 12.3	600
Orange	3,800	* 35	23.5 - 46.8 1,200	٠	43	30.7 - 54.8	1,400	* 19	9.6 - 28.1	600	* 10	* 3.6 - 16.4	300	* 7	* 1.0 · 13.1	200	12	5.5 - 18.4	400
Riverside	3,600	* 39	9 29.9 - 47.8 1,200	٠	36	27.6 - 44.3	1,100	* 13	* 5.1 - 20.0	400	<b>1</b> 21	13.4 - 29.2	600	* 13	8.0 - 18.1	400	10	5.7 - 14.9	300
Sacramento	3,000	* 43	<b>3</b> 33.1 - 53.7 1,100	٠	31	23.2 - 39.7	800	* 12	6.2 - 18.3	300	* 17	9.8 - 23.9	400	* 8	3.2 - 11.8	200	11	5.0 - 16.7	300
San Bernardino	4,500	* 38	<b>3</b> 30.3 - 46.1 1,500	٠	32	25.2 - 39.4	1,200	* 10	4.7 - 14.7	400	* 18	12.3 - 23.2	700	* 12	7.5 - 16.0	500	11	5.7 - 15.5	400
San Diego	5,000	* 46	<b>3</b> 33.4 · 59.3 1,900	٠	31	18.9 - 42.3	1,300	* 21	10.1 - 32.7	900	* 13	* 4.3 - 22.6	600	* 14	* 4.3 - 24.5	600	11	* 2.7 - 19.5	500
Santa Clara	2,700	* 32	2 20.4 - 44.4 700	٠	35	21.7 - 47.3	800	* 22	10.7 - 32.9	500	* 10	* 2.5 - 18.2	200	* 10	* 2.2 - 18.1	200	₩ 4	2.0 - 5.8	100

<sup>\*</sup> Estimate should be interpreted with caution due to low statistical reliability (relative standard error is between 30% and 50%).

Notes: Percent (%), 95% confidence interval (95% CI), and annual population estimates (rounded to the nearest hundred) are weighted to represent all live births in California. Population estimates are a three-year average (2010-2012). Symbols indicate whether the prevalence of the reason was statistically different from the rest of the state (p-value <.05, chi-square test). Percentages of women who reported each reason are calculated out of all eligible nonparticipants (ENPs), within each county or California, who gave a reason for not enrolling in WIC during pregnancy. ENPs are women who had Medi-Cal for prenatal care or delivery or had an income ≤185% of the Federal Poverty Guideline (FPG), but had no prenatal record in the WIC MIS database.

# White eligible nonparticipants

#### **Characteristics**

White women made up 36% of WIC ENPs (18,900 women). Compared to ENPs overall, a larger percentage of White ENPs spoke English (94%) and were first-time moms (48%).

White women had similar levels of hardships as ENPs overall, including income below poverty (42%), difficulty living on their income (55%), and food insecurity (17%). They participated in public programs during pregnancy at similar levels compared to ENPs overall, including Medi-Cal (49%) and CalFresh (21%). Compared to all ENPs, a smaller percentage of White women were on Medi-Cal before pregnancy (19%).

## Reasons for not enrolling in WIC during pregnancy

The two most common reasons reported by eligible White women for not participating in WIC were not thinking they needed WIC (42%, 7,400 women) and not thinking they would qualify (35%, 6,100 women). Less commonly reported reasons were not knowing about WIC (14%, 2,500 women), having a negative view of WIC (12%, 2,100 women), not being able to get to WIC (10%, 1,800 women), and application or telephone barriers (9%, 1,600 women).

Compared to other racial/ethnic groups, White women were more likely to report they did not need WIC, and that they had a negative view of WIC. White women were less likely than Hispanic and API women to think that they would not qualify and were less likely than US-born Hispanic women to report that they could not get to WIC.

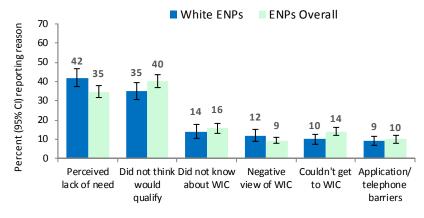


Figure 24. Reasons for not enrolling in WIC among White ENPs

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# **US-born Hispanic eligible nonparticipants**

#### **Characteristics**

US-born Hispanic women made up 23% of WIC ENPs (12,100 women). Compared to ENPs overall, a larger percentage of US-born Hispanic ENPs were ages 15 to 24 years (44%), and a smaller percentage were married (37%). Other characteristics were not different: 9% of US-born Hispanic women mostly spoke Spanish and 35% were first-time moms.

Compared to ENPs overall, US-born Hispanic women had similar levels of hardships, including income below poverty (53%), difficulty living on their income (55%), and food insecurity (24%). They had similar levels of health insurance and public program participation, such as Medi-Cal before pregnancy (31%) and during pregnancy (48%), and CalFresh during pregnancy (27%). A smaller percentage of US-born Hispanic ENPs were uninsured before pregnancy (23%).

# Reasons for not enrolling in WIC during pregnancy

The three most common reasons reported by US-born Hispanic ENPs for not enrolling in WIC were not thinking they would qualify (45%, 4,400 women), not thinking they needed WIC (29%, 2,800 women), and not being able to get to WIC (21%, 2,000 women). Less common reasons were application or telephone barriers (12%, 1,200 women), not knowing about WIC (11%, 1,000 women), and having a negative view of WIC (8%, 800 women).

Compared to White ENPs, US-born Hispanic ENPs were more likely to think they would not qualify for WIC and have difficulties getting to WIC, but were less likely to think they did not need WIC.

■ US-born Hispanic ENPs ■ ENPs Overall 70 Percent (95% CI) reporting reason 60 50 40 40 30 20 Ι 10 Did not think Perceived Couldn't get Application/ Did not know would lack of need to WIC telephone about WIC view of WIC qualify barriers

Figure 25. Reasons for not enrolling in WIC among US-born Hispanic ENPs

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# Foreign-born Hispanic eligible nonparticipants

#### **Characteristics**

Foreign-born Hispanic women made up 17% of WIC ENPs (8,800 women). Compared to ENPs overall, more foreign-born Hispanic women were Spanish speakers (70%) and had a high school degree or less education (69%), and fewer were ages 15-24 years (23%) or first-time moms (27%). There was no difference in the percentage who were married (52%).

Compared to ENPs overall, more foreign-born Hispanic women had any financial hardship (84%), income below poverty (62%), or no insurance before pregnancy (44%). Levels of public program participation were lower in general for this group, including Medi-Cal before pregnancy (19%) and CalFresh during pregnancy (11%). However, there was no difference in Medi-Cal during pregnancy (55%).

## Reasons for not enrolling in WIC during pregnancy

By far, the most common reason reported by eligible foreign-born Hispanic women for not participating in WIC was not thinking they would qualify (51%, 3,600 women), followed by not thinking they needed WIC (28%, 1,900 women). Less common reasons were not being able to get to WIC (16%, 1,200 women), not knowing about WIC (14%, 1,000 women), application or telephone barriers (13%, 1,000 women), and having a negative view of WIC (7%, 500 women).

Foreign-born Hispanic ENPs were more likely than White ENPs to think they would not qualify for WIC, and were less likely to think they did not need WIC.

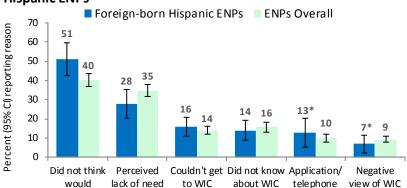


Figure 26. Reasons for not enrolling in WIC among foreign-born Hispanic ENPs

barriers

qualify

<sup>\*</sup> Estimate should be interpreted with caution due to low statistical reliability.

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# Foreign-born Asian/Pacific Islander (API) eligible nonparticipants

#### **Characteristics**

Foreign-born API women made up 11% of WIC ENPs (5,700 women). Compared to ENPs overall, more foreign-born API women were non-English speakers (63%), married (86%), and had at least some college education (78%). Fewer were ages 15-24 years (11%). There was no difference in the percentage that were first-time moms (49%).

Compared to ENPs overall, fewer foreign-born API women had an income below poverty (27%), but there was no difference in food insecurity (11%). In addition, there were no differences in health insurance and public program participation, such as Medi-Cal (23%) or lack of insurance (31%) before pregnancy, or Medi-Cal (38%) or CalFresh (20%) during pregnancy.

## Reasons for not enrolling in WIC during pregnancy

The three most common reasons eligible foreign-born API women reported for not participating in WIC were not thinking they would qualify (46%, 1,900 women), not knowing about WIC (36%, 1,500 women), and not thinking they needed WIC (25%, 1,100 women). Less common reasons were not being able to get to WIC (4%, 200 women), having a negative view of WIC (5%, 200), and application or telephone barriers (4%, 200 women).

Foreign-born API ENPs were more likely than White women to think they would not qualify for WIC. Women who spoke Asian or other languages at home reported that they did not know about WIC at a higher level than English speakers.<sup>a</sup>

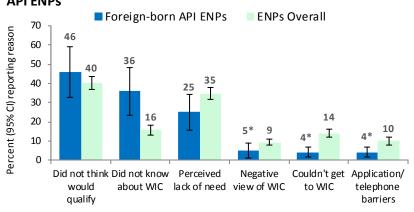


Figure 27. Reasons for not enrolling in WIC among foreign-born API ENPs

<sup>\*</sup> Estimate should be interpreted with caution due to low statistical reliability.

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars

<sup>&</sup>lt;sup>a</sup> Foreign-born API women and those who speak Asian or other languages may be underrepresented in the MIHA survey, which is only offered in English and Spanish.

# Black eligible nonparticipants

#### **Characteristics**

Black women made up 8% of WIC ENPs (4,000 women). Compared to ENPs overall, more Black women were English speakers (94%) and not married (75%). There were no differences in the percentage of women who were 15-24 years of age (38%), had a high school diploma or less (31%), or were first-time moms (31%).

Compared to ENPs overall, more Black women had an income below poverty (71%), but there was no difference in food insecurity (18%). More Black women participated in Medi-Cal before (45%) and during pregnancy (74%), and participated in CalFresh during pregnancy (58%).

### Reasons for not enrolling in WIC during pregnancy

The three most common reasons reported by eligible Black women for not participating in WIC were not thinking they needed WIC (37%, 1,200 women), not thinking they would qualify (29%, 900 women), and not being able to get to WIC (23%, 700 women). Less common reasons were having a negative view of WIC (9%, 300 women), not knowing about WIC (8%, 300 women), and application or telephone barriers (8%, 300 women).

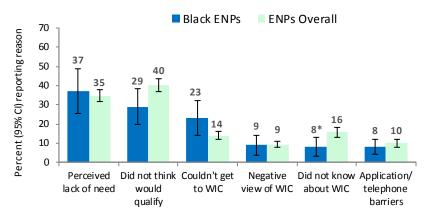


Figure 28. Reasons for not enrolling in WIC among Black ENPs

<sup>\*</sup> Estimate should be interpreted with caution due to low statistical reliability.

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# US-born Asian/Pacific Islander (API) eligible nonparticipants

#### **Characteristics**

US-born API women made up 4% of WIC ENPs (1,900 women). There were no differences in the demographic characteristics of US-born API ENPs and ENPs overall. Among US-born API ENPs, 14% were non-English speakers, 35% were ages 15-24 years, 32% had a high school diploma or less education, 35% were first-time moms and 47% were married.

There were few differences in hardships, health insurance, and public program participation between US-born API women and ENPs overall. Among US-born API women, 39% had an income below poverty and 19% were food insecure. A greater percentage of US-born API women were on Medi-Cal before pregnancy (44%), but there was no difference in being uninsured before pregnancy (28%), or having Medi-Cal (55%) or CalFresh (18%) during pregnancy.

## Reasons for not enrolling in WIC during pregnancy

By far the most common reason reported by eligible US-born API women for not participating in WIC was not thinking they would qualify (50%, 800 women), followed by not thinking they needed WIC (21%, 300 women), not knowing about WIC (18%, 300 women) and not being able to get to WIC (13%, 200 women). Less common reasons were application or telephone barriers (6%, 100 women) and having a negative view of WIC (3%, <100 women).

US-born API ENPs were more likely than White women to think they would not qualify for WIC and were less likely than White women to think they did not need WIC.

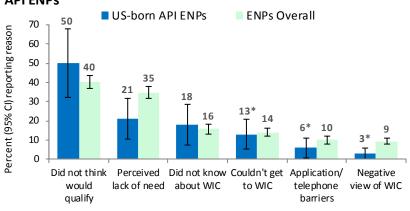


Figure 29. Reasons for not enrolling in WIC among US-born API ENPs

<sup>\*</sup> Estimate should be interpreted with caution due to low statistical reliability.

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# American Indian/Alaska Native<sup>b</sup> (AIAN) eligible nonparticipants

#### **Characteristics**

AIAN women made up 2% of WIC ENPs (1,100 women). Because of the small number of women in this group, few differences between AIAN women and ENPs overall were observed. Compared to ENPs overall, a larger percentage of AIAN women spoke English (100%) and a smaller percentage were married (34%). There were no differences in the percentage of women who were 15-24 years of age (35%), had a high school diploma or less education (47%), or were first-time moms (41%).

There were also few differences in hardships, health insurance, and public program participation. Among AIAN women, 63% had an income below poverty and 28% were food insecure. In addition, 31% were uninsured and 35% had Medi-Cal before pregnancy, and 61% had Medi-Cal during pregnancy. Compared to ENPs overall, more AIAN women participated in CalFresh (43%) during pregnancy.

## Reasons for not enrolling in WIC during pregnancy

The two most common reasons reported by eligible AIAN women for not participating in WIC were not thinking they would qualify (38%, 300 women) and not thinking they needed WIC (33%, 300 women). Other reasons included having a negative view of WIC (16%, 100 women), not knowing about WIC (14%, 100 women), not being able to get to WIC (14%, 100 women), and application or telephone barriers (11%, 100 women).

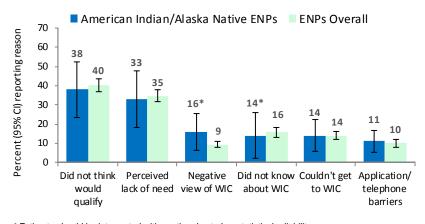


Figure 30. Reasons for not enrolling in WIC among AI/AN ENPs

<sup>\*</sup> Estimate should be interpreted with caution due to low statistical reliability.

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

<sup>&</sup>lt;sup>b</sup> Women who identify as American Indian/Alaska Native in any race category on the birth certificate, regardless of Hispanic origin, and who are born in the United States are defined as American Indian/Alaska Native in this report. This group is not mutually exclusive of other racial/ethnic groups.

# Eligible nonparticipants with Medi-Cal for prenatal care

#### **Characteristics**

The majority of women with Medi-Cal for prenatal care are adjunctively eligible for WIC, that is, they automatically qualify for WIC due to their participation in Medi-Cal. Each year, approximately 27,400 women with Medi-Cal for prenatal care were eligible, but did not participate in WIC prenatally. These women accounted for half (51%) of the prenatal WIC ENP population. Many women enroll in Medi-Cal only for pregnancy because of expanded eligibility criteria that allow women with higher incomes and undocumented immigrants to obtain Medi-Cal during their pregnancies. Only 38% had Medi-Cal before pregnancy, while 44% were uninsured and 16% had private insurance at that time. This report covers the period prior to the full implementation of the Affordable Care Act. Strategies to increase WIC enrollment among Medi-Cal participants should consider the implications of expanding Medi-Cal eligibility and streamlined enrollment processes for health insurance that are part of health care reform.

In general, the racial/ethnic distribution of ENPs with Medi-Cal for prenatal care was similar to that of ENPs overall. Among those with Medi-Cal, 35% were White, 22% were US-born Hispanic, 18% were foreign-born Hispanic, 11% were Black, 8% were foreign-born API, and 4% were US-born API.

Compared to ENPs overall, a slightly higher percentage had a high school diploma or less education (46%), while a smaller percentage were married (41%). There were no differences in other demographic characteristics such as age 15-24 years (37%), speaking English (75%) or being a first-time mom (36%).

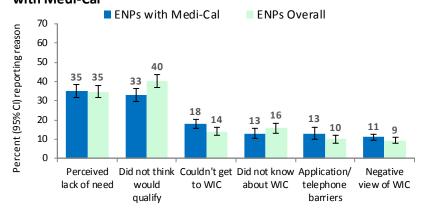
ENPs with Medi-Cal during pregnancy were different from the overall group in terms of hardships and public program participation. Among ENPs with Medi-Cal for prenatal care, more had an income below poverty (61%), but there was no difference in food insecurity (20%). More ENPs with Medi-Cal for prenatal care participated in CalFresh during pregnancy (34%).

# Reasons for not enrolling in WIC during pregnancy

reasons reported women with prenatal Medi-Cal were not thinking they needed WIC (35%, 7,700), not thinking they would qualify for WIC (33%, 7,400), not being able to get to WIC (18%, 4,100), not knowing about WIC (13%, 2,800 women), application or telephone barriers (13%, 2,800), and having a negative view of WIC (11%, 2,500 women).

Despite adjuctive eligibility, ENPs with prenatal Medi-Cal were just as likely to not know about WIC or not think they qualified as other women.

Figure 31. Reasons for not enrolling in WIC among ENPs with Medi-Cal



Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars

# Eligible nonparticipants with private insurance for prenatal care

#### **Characteristics**

Each year, approximately 20,400 women who had private insurance for prenatal care were eligible, but not enrolled in WIC during pregnancy. These women accounted for 38% of the prenatal WIC ENP population.

In general, the racial/ethnic distribution of ENPs with private insurance for prenatal care was similar to ENPs overall. Among those with private insurance, 38% were White, 25% were US-born Hispanic, 15% were foreign-born Hispanic, 14% were foreign-born API, and 4% were US-born API. Fewer women with private insurance for prenatal care were Black (4%) compared to ENPs overall.

Compared to ENPs overall, fewer ENPs with private insurance for prenatal care were ages 15-24 years (22%) or had no more than a high school diploma (30%), though more were married (66%). There were no differences in other demographic characteristics, such as speaking English (80%) or being a first-time mom (44%).

Compared to ENPs overall, fewer with prenatal private insurance had income below poverty (33%), but the percentage with food insecurity was similar (16%). In addition, fewer were uninsured (10%) or had Medi-Cal (11%) before pregnancy, and fewer participated in CalFresh during pregnancy (7%).

### Reasons for not enrolling in WIC during pregnancy

Among women with private insurance during pregnancy, the most common reason for not participating in WIC was not thinking they would qualify (50%, 9,200 women). Other common reasons were not thinking they needed WIC (36%, 6,500 women) and not knowing about WIC (18%, 3,300 women). Less common reasons were not being able to get to WIC (9%, 1,600 women), application or telephone barriers (7%, 1,200 women), and having a negative view of WIC (7%, 1,200 women).

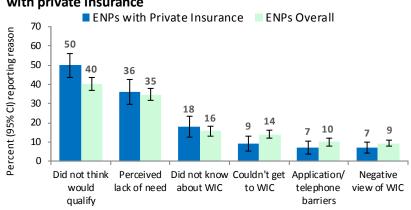


Figure 32. Reasons for not enrolling in WIC among ENPs with private insurance

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# Eligible nonparticipants who participated in CalFresh during pregnancy

#### **Characteristics**

Each year, approximately 12,500 women who participated in CalFresh during pregnancy were eligible, but did not participate in WIC. These women accounted for 23% of the prenatal WIC ENP population. Women who participate in CalFresh are adjunctively eligible for WIC, that is, they automatically qualify for WIC due to their participation in CalFresh.

Among ENPs with CalFresh, 32% were White, 27% were US-born Hispanic, 19% were Black, 9% were foreign-born API, 8% were foreign-born Hispanic, and 3% were US-born API. More ENPs with CalFresh were Black and fewer were foreign-born Hispanic.

Compared to ENPs overall, there were many differences in the demographics of those with CalFresh. They were younger and had lower education, there were fewer first-time moms, and fewer were married. Among these women, 41% were ages 15-24 years, 53% had a high school diploma or less education, 20% were first-time moms, and 29% were married. There was no difference in speaking English (85%).

ENPs with CalFresh during pregnancy were different from the overall group in terms of hardships and public program participation. Among ENPs with CalFresh, a larger percentage had an income below poverty (84%), difficulty living on their income (76%) and food insecurity (28%). A larger percentage of ENPs with CalFresh had Medi-Cal before pregnancy (63%) and during pregnancy (75%).

# Reasons for not enrolling in WIC during pregnancy

Among women who participated in CalFresh during pregnancy, the most common reasons for not participating in WIC were not being able to get to WIC (33%, 2,900 women), not thinking they needed WIC (28%, 2,400 women) and not thinking they qualified for WIC (19%, 1,700 women). Other reasons included application or telephone barriers (14%, 1,200 women), having a negative view of WIC (12%, 1,100 women), and not knowing about WIC (9%, 800 women).

ENPs who participated in CalFresh were more likely to have difficulty getting to WIC and less likely to think they did not qualify for WIC than women without CalFresh.

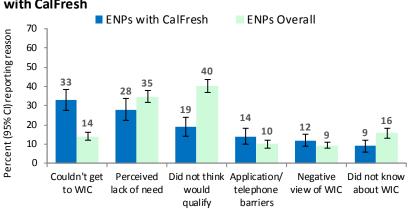


Figure 33. Reasons for not enrolling in WIC among ENPs with CalFresh

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# Eligible nonparticipants who were food insecure during pregnancy

#### **Characteristics**

Each year, approximately 10,100 women who were food insecure during pregnancy were eligible, but did not participate in WIC prenatally. These women accounted for 19% of the prenatal WIC ENP population.

Among food insecure ENPs, 33% were White, 30% were US-born Hispanic, 19% were foreign-born Hispanic, 7% were Black, 6% were foreign-born API, and 4% were US-born API.

Compared to ENPs overall, food insecure women had lower education (50% had no more than a high school diploma) and fewer were married (37%). There were no differences in other demographic characteristics: 78% spoke English, 35% were ages 15-24, 51% were ages 25-34, 13% were ages 35 and older, and 31% were first-time moms.

Food insecure ENPs had more financial hardships than the overall group: 66% had an income below poverty and 87% had difficulty living on their income. There was no difference in Medi-Cal before (29%) or during (55%) pregnancy, but CalFresh participation was higher (34%) among food insecure ENPs compared to ENPs overall.

## Reasons for not enrolling in WIC during pregnancy

By far the most common reason reported by women with food insecurity during pregnancy for not participating in WIC was not thinking they would qualify (50%, 4,100 women). Other common reasons were not being able to get to WIC (23%, 1,900 women) and application or telephone barriers (17%, 1,400 women). Less common reasons were not knowing about WIC (14%, 1,100 women), not thinking they needed WIC (10%, 800 women), and having a negative view of WIC (8%, 700 women).

Compared to food secure ENPs, those with food insecurity during pregnancy were more likely to think that they did not qualify, but were less likely to think they did not need WIC.

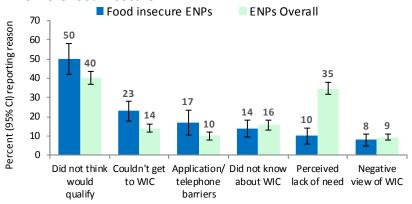


Figure 34. Reasons for not enrolling in WIC among ENPs who were food insecure

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# Eligible nonparticipants who were first-time moms

#### **Characteristics**

Each year, approximately 21,300 women who had their first live birth were eligible, but not enrolled in WIC during pregnancy. These women accounted for 40% of the prenatal WIC ENP population.

Among these first-time moms, 44% were White, 21% were US-born Hispanic, 12% were foreign-born Hispanic, 13% were foreign-born API, 6% were Black, and 3% were US-born API. Compared to ENPs overall, the racial/ethnic distribution was very similar, except that a smaller percentage were foreign-born Hispanic.

First-time moms were younger when compared to all ENPs. About 46% were ages 15-24 years. There were no differences compared to all ENPs in other demographic characteristics, such as speaking English (76%), having a high school diploma or less (33%), or being married (45%).

Compared to all ENPs, many fewer first-time moms had Medi-Cal before pregnancy (12%) or participated in CalFresh during pregnancy (12%), but there was no difference for Medi-Cal during pregnancy (46%). First-time moms faced hardships at similar levels compared to ENPs, including income below poverty (43%) and food insecurity (15%).

## Reasons for not enrolling in WIC during pregnancy

The three most common reasons reported by first-time moms for not participating in WIC were not thinking they would qualify (39%, 7,400 women), not thinking they needed WIC (38%, 7,200 women), and not knowing about WIC (25%, 4,800 women). Other, less common reasons were not being able to get to WIC (9%, 1,800 women), having application or telephone barriers (8%, 1,500 women), and having a negative view of WIC (7%, 1,300 women).

First-time moms were more likely than moms with a prior live birth to report that they did not know about WIC as a reason for not enrolling in WIC during pregnancy, and were less likely to report application or telephone barriers, or to have a negative view of WIC.

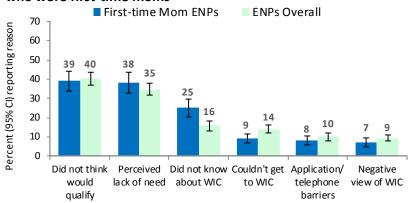


Figure 35. Reasons for not enrolling in WIC among ENPs who were first-time moms

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# Eligible nonparticipants who had a prior live birth

#### **Characteristics**

Each year, approximately 32,300 women who had a prior live birth were eligible, but not enrolled in WIC during pregnancy. These women accounted for 60% of the prenatal WIC ENP population.

Among these women with a prior live birth, 31% were White, 25% were US-born Hispanic, 20% were foreign-born Hispanic, 9% were foreign-born API, 9% were Black, and 4% were US-born API. Compared to ENPs overall, the race/ethnic distribution was very similar.

Moms with a prior live birth were older compared to all ENPs. About 23% were ages 15-24 years, 57% were ages 25-34 years, and 20% were 35 years or older. There were no differences in other demographic characteristics, such as speaking English (76%), having no more than a high school diploma (44%), or being married (55%).

Compared to all ENPs, more moms with a prior live birth had Medi-Cal before pregnancy (35%), or participated in CalFresh during pregnancy (31%), but there was no difference for Medi-Cal during pregnancy (55%). More moms with a prior live birth reported difficulty living on their income (62%), though they had no difference in income below poverty (53%) and food insecurity (22%).

## Reasons for not enrolling in WIC during pregnancy

Among women with a prior live birth, the most common reasons for not participating in WIC were not thinking they would qualify (41%, 10,700 women), not thinking they needed WIC (32%, 8,400 women), and not being able get to WIC (17%, 4,500 women). Other, less common reasons were application or telephone barriers (11%, 3,000 women), having a negative view of WIC (11%, 2,900 women), and not knowing about WIC (9%, 2,300 women).

Moms with a prior live birth were more likely than first-time moms to have application or telephone barriers and to have a negative view of WIC. They were less likely to not know about WIC.

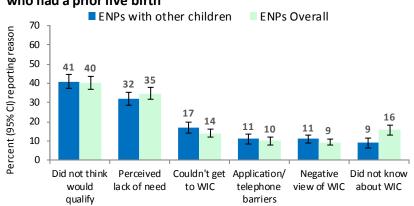


Figure 36. Reasons for not enrolling in WIC among ENPs who had a prior live birth

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# Eligible nonparticipants ages 15-19

#### **Characteristics**

Each year, approximately 3,800 women ages 15-19 years old were eligible, but did not participate in WIC during pregnancy. These women accounted for 7% of the prenatal WIC ENP population.

Among adolescent ENPs, 47% were US-born Hispanic, 30% were White, 11% were foreign-born Hispanic, 6% were Black, and 3% were US-born API. There were more US-born Hispanics among adolescents than among ENPs overall.

Compared to ENPs overall, more adolescents were first-time moms (77%) and fewer were married (12%). There was no difference in language spoken (79% spoke English).

There were no differences in financial hardships with the overall group. Among adolescents, 25% were food insecure and 54% had difficulty living on their income. There was no difference in Medi-Cal before (30%) or during (58%) pregnancy, or CalFresh participation during pregnancy (20%).

# Reasons for not enrolling in WIC during pregnancy

Commonly reported reasons among adolescents for not participating in WIC during pregnancy were not thinking they would qualify (29%, 800 women), not thinking they needed WIC (26%, 700 women), not knowing about WIC (24%, 700 women), and not being able to get to WIC (20%, 600 women). Less commonly reported reasons were application or telephone barriers (14%, 400 women) and having a negative view of WIC (8%, 200 women).

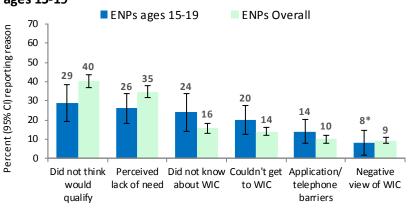


Figure 37. Reasons for not enrolling in WIC among ENPs ages 15-19

<sup>\*</sup> Estimate should be interpreted with caution due to low statistical reliability.

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# Eligible nonparticipants with incomes above poverty and at least some college education

#### **Characteristics**

Each year, approximately 19,400 women who had an income above poverty and at least some college education were eligible, but not enrolled in WIC.

Among these women, 45% were White, 20% were US-born Hispanic, 17% were foreign-born API, 8% were foreign-born Hispanic, 5% were Black, and 5% were US-born API.

Women with higher income and education were older when compared to all ENPs. About 63% were ages 25-34 years and 19% were ages 35 and older. Approximately 70% were married. There were no differences with all ENPs in other demographic characteristics, such as speaking English (81%) or being a first-time mom (47%).

Few women with higher income and education had Medi-Cal before pregnancy (9%), or participated in CalFresh during pregnancy (7%), though 38% had Medi-Cal during pregnancy. Despite higher education and relatively higher income, many of these women reported difficulty living on their income (47%) and food insecurity (12%).

## Reasons for not enrolling in WIC during pregnancy

Among women with higher income and education, the two most common reasons for not participating in WIC were not thinking they would qualify (47%, 8,400 women) and not thinking they needed WIC (42%, 7,600 women). Other, less common reasons were not knowing about WIC (15%, 2,800 women), having a negative view of WIC (9%, 1,600 women), not being able to get to WIC (5%, 900 women), and application or telephone barriers (5%, 900 women).

■ ENPs with higher income and some college 70 Percent (95% CI) reporting reason 60 50 40 30 16 20 10 Perceived Did not know Did not think Negative Couldn't get Application/ would lack of need about WIC view of WIC to WIC telephone qualify barriers

Figure 38. Reasons for not enrolling in WIC among ENPs with with higher income and some college

Note: 95% confidence intervals (95% CI) are shown as thin black lines extending above and below the bars.

# **Conclusion**

This report uses data from the 2010-2012 MIHA survey to provide new insights into why eligible women do not participate in WIC during pregnancy. Between the years 2010 and 2012, approximately 11% of the women with a live birth in California were eligible but did not participate in WIC during pregnancy, about 53,600 women each year. These WIC ENPs reflect California's unique socio-demographic diversity in terms of race, ethnicity, language spoken at home, maternal age, parity, and education. In addition, ENPs have health and psychosocial risk factors for poor birth outcomes that could be addressed by WIC, such as food insecurity, self-reported poor health, or dietary risk.

Overall, the leading reasons for not enrolling in WIC during pregnancy were not thinking they would qualify (40%) and not thinking they needed WIC (35%). Reasons less commonly reported by women were not knowing about WIC (16%) and difficulty getting to WIC (14%). The least common reasons were application or telephone barriers (10%) and having a negative view of WIC (9%).

The results presented in this report suggest a number of opportunities for outreach to ENPs to address nonparticipation in WIC:

- White women and English speakers constituted the largest proportion of ENPs, and were generally the largest groups among women reporting each reason for nonparticipation.
- Women who did not think they would qualify for WIC experienced relatively lower levels of poverty, but reported other hardships including food insecurity and difficulty living on their income. Messages describing the range of WIC benefits in addition to qualification criteria might resonate with these women.
- Though it was a leading reason among all racial/ethnic groups, Hispanic and API women were
  more likely to think that they would not qualify for WIC than other racial/ethnic groups.
  Outreach strategies describing eligibility during pregnancy could focus on these communities.
- Women who thought they did not need WIC reported relatively lower levels of financial hardships, particularly food insecurity, but they reported similar levels of health and psychosocial risks as other ENPs. Messages emphasizing the health benefits of WIC may be effective with women who perceive themselves as having less financial need for WIC.
- First-time moms were more likely to not know about WIC. They may have had fewer opportunities to learn about WIC than women who experienced a previous pregnancy.
- Foreign-born API women made up one in four women who did not know about WIC.
  Additionally, non-English speakers were more likely to report not knowing about WIC than
  English speakers. These women lacked the most basic information about WIC and would have
  benefitted from enhanced outreach using linguistically and culturally appropriate strategies.
- More than one in three women who did not think they qualified for WIC or did not know about WIC were enrolled in Medi-Cal during pregnancy, despite automatically qualifying for WIC through adjunctive eligibility. WIC could continue ongoing efforts to strengthen its partnerships with Medi-Cal and CalFresh to ensure all women are aware of their adjunctive eligibility for WIC.

- Women with private insurance made up approximately half of the women who did not think
  they qualified for WIC, did not think they needed WIC, and did not know about WIC. New
  partnerships could be established with private insurers to educate women about the WIC
  program. Additionally, all prenatal care providers, particularly those serving privately insured
  women, could be encouraged to provide information about WIC to their patients.
- ENPs who had difficulty getting to WIC had lower educational attainment, more children, and a
  high level of financial hardships. They reported a high level of participation in other public
  programs including CalFresh and Medi-Cal. Women with few resources and who may be
  participating in other public programs might benefit from efforts to reduce logistical barriers.
- Many women who reported application or telephone barriers had lower educational attainment
  and older children, which may have made negotiating the application process more difficult.
  However, many also participated in Medi-Cal and CalFresh. These women could be informed of
  adjunctive eligibility, which should ease the application process for them.
- Most women with a negative view of WIC reported that they used to be on WIC but did not like
  it or did not want to use WIC vouchers to shop. Despite their negative view of WIC, many had
  financial hardships and participated in other public programs. Messages emphasizing the
  changes to the food package may address some women's negative perceptions of WIC.

The characteristics of ENPs and reported reasons for not participating in WIC described in this report complement previous work that estimated the number of women eligible for WIC and identified the geographic location of WIC ENPs. <sup>1,7,8</sup> In addition, profiles for demographic and socioeconomic subgroups of women describe their characteristics and reasons for not participating in WIC, while the appendix tables can provide detailed information for more in-depth investigation. Together, these results can be used by state and local WIC program directors to customize outreach strategies to address specific barriers among their respective ENP populations.





## **Technical documentation**

## Linkage of records from WIC MIS to the Birth Statistical Master File

A query from the WIC program participant database, Managment Information System (WIC MIS), extracted all prenatal, post-partum, and infant records for births in the calendar years 2010-2012. WIC MIS data were entered by WIC staff during each client visit. Births occurring two months before (November/December) and two months after (January/February) the calendar year were also queried to account for mistakes in birth dates. Additionally, prenatal records included women who WIC verified had a live birth, in addition to women who WIC recorded as having a stillbirth, abortion, or miscarriage, or who were lost to follow-up (outcome unknown). Often these records linked to a live birth certificate with a high level of confidence, even though they were not on record as having a live birth in WIC MIS. The data were processed in order to identify records for the same woman or child who do not have the same ID in WIC MIS, which could happen if a woman moved to another WIC site. Using the individual, family, Medi-Cal, agency, and clinic IDs, as well as social security number, driver's license number, the mother's and child's dates of birth, and the mother's and family's first and last names, a single unique identifier was assigned linking prenatal, post-partum, and infant records for a given birth. Data for the same person stored in multiple records could contain different values; for instance, an updated last name if a woman married. Therefore, multiple values for names and birth dates were used in the linkage, which increased the likelihood of finding a woman in both files if there were data entry errors.

The birth file for a given calendar year was concatenated with the last two months of the prior year and the first two months of the subsequent year, if these data sets were available (depending on when the linkage is conducted, data from the subsequent year may not yet be released).

The data sets were linked on the following variables:

WIC MIS	BSMF
Mother or family first name (FIRST)	Mother first name (FIRST)
Mother or family last name (LAST)	Mother or father last name (LAST)
Infant first name (INFANT)	Infant first name (INFANT)
Child date of birth (CDOB)	Child date of birth (CDOB)
Mother date of birth (MDOB)	Mother date of birth (MDOB)
Last live birth date (LLB)	Last live birth date (LLB)
Zip code of residence	Zip code of residence
Gender of infant	Gender of infant

The linkage was done in multiple steps on different combinations of the variables above using SAS software (Cary, NC). Exact and approximate birth dates were used, catching records with the same values for two parts of the date (e.g., MMYY, DDYY, or MMDD). The SAS code also caught common data entry errors for names, including instances where one variable transposed two letters, the variables differed on one letter, one letter was deleted from a variable, and one variable contained a string that was found within the other variable.

## Multivariate logistic regression methods

Multivariate logistic regression was used to identify factors associated with each reason for not enrolling in WIC. Adjusted logistic regression analyses with 95% confidence intervals were used to estimate odds of eligible nonparticipants selecting each reason category. Initially, variables for the models were selected based on significance in bivariate analysis with 95% confidence intervals. For consistency, the following variables were used in all of the models: race, ethnicity and nativity; language; maternal age; parity; marital status; pre-pregnancy insurance; prenatal insurance; CalFresh during pregnancy; income as % of poverty; hard to live on income; and food insecurity. The sample size for these models was 3,703. In the model for perceived lack of need, two additional variables were included: dietary risk and breastfeeding intention. The sample size for this model was 3,497.

#### Variable definitions

A comprehensive list of definitions of all MIHA indicators are listed in the technical document on the MIHA website (www.cdph.ca.gov/data/surveys/MIHA/Documents/MIHATechnicalDocument.pdf). Below is a list of selected definitions for indicators used in this report.

<u>Food insecurity during pregnancy</u>. Calculated from the modified U.S. Department of Agriculture (USDA) Food Security Module Six Item Short Form and categorized as food secure (0-1) or food insecure (2-6). Responses with one or two missing values were imputed. See USDA guidelines for more detail: www.fns.usda.gov/fsec/files/fsguide.pdf.

<u>Income as a % of poverty</u>. Calculated from monthly family income, before taxes from all sources, including jobs, welfare, disability, unemployment, child support, interest, dividends, and support from family members, and the number of people living on that income. See the annual Poverty Guidelines published by the U.S. Department of Health and Human Services for more detail: aspe.hhs.gov/poverty/index.cfm.

<u>Any financial hardship</u>. Includes at least one of the following: income below poverty, food insecurity, hard to live on income, job loss or homelessness.

<u>Self-reported poor health risk index</u>. Includes at least one of the following self-reported conditions: fair or poor health before pregnancy, diabetes before or during pregnancy, hypertension before or during pregnancy, or pre-eclampsia or eclampsia during pregnancy.

<u>Psychosocial risk index</u>. Includes at least one of the following: physical or psychological intimate partner violence during pregnancy, prenatal or postpartum depressive symptoms, or lack of practical or emotional support.

<u>Risky substance use index.</u> Includes at least one of the following: any smoking before or during pregnancy, any binge drinking before pregnancy, or any drinking during pregnancy.

<u>Dietary risk index.</u> Includes at least one of the following: no daily folic acid use, unhealthy prepregnancy BMI (underweight, overweight or obese), or inadequate or excessive weight gain during pregnancy.

## Categorization of reasons for not enrolling in WIC

The 2010-2012 MIHA questionnaire asked women if they were on WIC at any time during their most recent pregnancy. Women who answered "no" were directed to a follow-up question on reasons for not enrolling in WIC during pregnancy, which included a list of response options and a space to provide a write-in response. Women could select all reasons that applied to them.

Write-in responses were coded independently by two reviewers and grouped into themes. Any responses that were coded differently were discussed and reconciled. Write-in responses that fit into a reason response listed on the questionnaire were recoded to that response. Multifaceted write-in responses were coded to all applicable reason response options and themes. The reasons responses listed on the questionnaire and the write-in themes were organized into general categories describing reasons for WIC nonparticipation during pregnancy, which formed the basis of the analyses presented in this report. Reasons categories were developed based on the public program nonparticipation literature, applicability to strategies for increasing enrollment in WIC during pregnancy, and having a sufficient number of ENPs in each category for data analysis to examine their characteristics.

The detailed table on the following page illustrates how each of the reasons responses listed on the questionnaire and the write-in themes were organized into general categories. For each questionnaire reason option or write-in theme, the table describes the unweighted number of ENPs who selected that reason/theme, and the weighted percent and average annual population estimate of ENPs who selected that reason/theme. Within the general reason categories, the number of ENPs who provided write-in responses for each of the themes was small relative to the much larger number of ENPs who selected reason response options listed in the questionnaire. Previous analyses using single year data from 2010 use slightly different categories.

#### Categories of reasons why women did not participate in WIC during pregnancy, MIHA 2010-2012

eategories of reasons why women and not participate in	All ENP Responses			Did not think would qualify		Perceived lack of need		Did not know about WIC		Access- Could not get to WIC		Access- Application issues		Negative view of WIC		Other/low prevalence issues	
	n	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
				40	18,200	35	15,600	16	7,100	14	6,200	10	4,500	9	4,200	2	1,000
Reasons- checkboxes																	
I didn't think I would qualify for WIC	1,445	37	16,900		Х												
I did not need WIC	1,450	32	14,400				Х										
I never heard of WIC	493	15	6,700						х								
I couldn't get to WIC when open	462	10	4,500								Х						
I couldn't get through on the phone	172	3	1,600										Х				
It was too difficult to apply for WIC	304	7	3,300										Х				
I used to be on WIC but didn't like it	136	2	1,000												х		
I did not want to use vouchers to shop	295	6	2,700												X		
Reasons- write-in themes			,														
Did not know WIC covers pregnant women *	45	1	500		Х												
Did not qualify or was disqualified	96	2	1,100		х												
Income too high	32	1	400		Х												
Other women needed it more	22	<1	100				Х										
Low motivation	117	2	1,100				Х										
Never thought about enrolling in WIC	24	<1	200				Х										
Enrolled after pregnancy, did not want to enroll until baby was born (for formula or other reason)	39	1	300				x										
Did not know enough about WIC or application process	34	1	400						Х								
Trouble getting there (transportation)	71	2	800								Х						
Trouble getting there (bed rest, sick, kids, unspecified)	63	2	700								х						
No time/busy/working	83	2	1,000								х						
Issues with WIC location (didn't know location, too far, unsafe)	28	1	400								X						
Did not get referral from doctor	<10												х				
Did not have id/paperwork to apply	24	<1	100										X				
Moved	13	<1	200										X				
Embarassment	<10														х		
Did not like the requirements	16	<1	100												X		
Did not like WIC foods	21	<1	200												X		
Did not want to be on WIC	29	1	300												X		
Did not want government assistance	<10														X		
Long wait/long lines	10	<1	100												x		
Issues with WIC staff	14	<1	100												X		
Husband would not let her	10	<1	<100														x
Concerned about immigration issues	<10		\100														X
Did not want parents to know	<10																X
No refrigerator	<10																X
Did not know she was pregnant	23	1	300														X
Out of the country during pregnancy	11	<1	100														X
Other	54	1	400														X
ouiei	54	1	400														^

<sup>\*&</sup>quot;Did not know WIC covers pregnant women" is included in "I didn't think I would qualify." These responses were previously recoded.

Note: Checkbox reasons and write-in themes are not mutually exclusive. A respondent could check multiple reasons as well as write in another answer that may be categorized into one or more theme codes. The unweighted number (n) is for the entire 2010-2012 period. The percent (%) and annual population estimate averaged from 2010-2012 (N) are weighted to represent all women in California, and population estimates are rounded to the nearest hundred.

<sup>--</sup> Numbers and percents are not shown for fewer than 10 responses.



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