



# REVIEW OF WIC LITERATURE

## WIC SPECIAL PROJECT INNOVATION GRANT



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## Overview

The WIC Special Project Innovation Grant, or WSPI, partners have conducted a review of 24 different studies/reports that examine barriers to WIC participation. For each piece of literature, WSPI partners:

1. Identified the sample
2. Recorded the research question
3. Determined the methodology used  
(e.g., survey, analysis of administrative data, etc.)
4. Summarized the key findings
5. Discussed policy implications and recommended solutions (if applicable)

**Table 1** provides an exhaustive list of the studies and resources reviewed by the WSPI partners. A broad summary of our findings is provided below.

This report is designed to support the eventual WSPI request for applications (RFA) process and overall project objectives by providing WSPI partners with a firm understanding of barriers to WIC enrollment and participation, stimulating the development of innovative intervention ideas, and facilitating the identification of subject matter experts to comprise the advisory group.

We want to qualify the remainder of this report. Many of the studies found that satisfaction with WIC is exceptionally high, and WIC is widely regarded as both a However, the purpose of this report is to promote an evidence-based assessment of the enrollment process and program participation. To that end, we strictly focus on barriers to WIC participation and potential intervention strategies.

## Barriers to WIC Participation

As we began delving into the WIC literature, it quickly became clear that this inquiry has been a research priority in recent years. Around 90% of the studies focused on identifying barriers to WIC participation. Surveys and interviews were the most common methods used to pinpoint these factors. We believe the results of the studies are fairly generalizable. Study samples were diverse and included WIC stakeholders at multiple levels and in a variety of contexts. The following were frequently cited barriers to participation:

- Long wait times
- Facility concerns  
(nothing for children to do, noisy, overcrowded, inconvenient locations)
- Transportation issues
- Lack of time, busy lifestyles
- Perceived lack of need
- Language barriers
- Stigma associated with receiving benefits
- Benefits not worth the time and effort
- Difficulty scheduling appointments
- Difficulty getting time away from work
- Clinic hours
- Confusion or unfamiliarity with eligibility criteria
- Lack of knowledge of WIC services
- Misconceptions about program
- Negative shopping experiences

## Intervention Strategies

A smaller proportion of the literature focused on intervention strategies. Nevertheless, WSPI partners were able to identify some promising ideas. The following strategies may be employed to facilitate WIC *certification* and *enrollment*:

- Two-way text messaging service (reminders, customer service, etc.)
- Extended/adjusted hours of operation
- Providing transportation support
- Targeted, multilingual outreach to eligible non-participants
- Flexible and seamless scheduling and appointment management
- Confirming adjunctive eligibility during pre-screen
- Utilizing data to predict attrition
- Electronic document submission options
- Reciprocal referrals between SNAP, WIC, TANF, and Medicaid





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# Table 1. Review of Literature on Barriers to WIC Participation

Citation	Sample	Research Question	Methodology	Barriers	Strategies
Bess et al. (2010)	Four WIC agencies across Illinois	Provide an overview of program design, training, and evaluation.	N/A	Perceived value of the food package, busy lifestyles, access to other food benefits, multiple jobs/ looking for work, difficulty scheduling/rescheduling, wait times, paperwork, unwelcome clinic environment, staff judgment, difficulty using food instruments, negative interactions with cashiers and customers, unfamiliarity with WIC eligibility, transportation issues, unsupportive physicians and availability of food items.	<p><b>Agencies:</b> tailored messaging, sell WIC campaign, participant incentives, automated text reminders, "Get to Know WIC Staff" photo board, tailor education based on WIC experience, and waiting room videos.</p> <p><b>Community:</b> public education campaign, grocery delivery, mobile clinic, linkage with other services, and partner with healthcare and childcare providers.</p> <p><b>Vendors:</b> vendor training, WIC grocery store tour, Switch to EBT, and Improved WIC labeling.</p>
Tiehen & Jackowitz (2010)	10,700 children nationally representative of children born in 2001	Research factors that influence the dynamics of WIC participation	Analysis of administrative data	Approximately 33% of households that left the WIC program reportedly believed they were no longer eligible for WIC when they in fact were, implying that their early exit may have been due to confusion with eligibility criteria. Some households reported that the program requires too much effort and the benefits are not worth the time or that they have scheduling and transportation problems.	N/A
Geller et al. (2012)	Phone interviews: 2,538 WIC participants within the contiguous states  In-person interviews: 1,210 of the respondents from the first sample	Explore the characteristics and experiences of WIC participants	Phone and in-person interviews	Unfamiliarity, lack of knowledge about WIC or its services, perceived problems qualifying for benefits, and services "taking too long." Lack of transportation and inconvenient clinic hours were also mentioned. Most participants rated WIC benefits they receive as excellent in terms of offering foods that they like to eat. Some participants reported not buying certain WIC foods regularly, usually because of dislike of the particular food item, not being accustomed to a food, or not needing the item. Some participants reported that there was not enough milk offered. Language barriers were an important consideration in participant satisfaction. Participants valued money saved on groceries and vouchers for nutritious foods most.	N/A
Geller et al. (2012)	90 State WIC agencies	Provide information on the policies, procedures, operations and staff at State and local WIC agencies.	Surveys	In certification, half of the State agencies grant discretion to local agencies on income eligibility, but less than half permit any discretion of criteria for determining the family economic unit. When an infant turns 1 year old, the majority of the agencies consider the infant to be categorically ineligible and require recertification based on criteria for a child.	N/A

Citation	Sample	Research Question	Methodology	Barriers	Strategies
Huynh (2013)	70 WIC-eligible families in Minnesota	What barriers to participation exist across awareness, experience, access and outreach?	Focus groups and phone surveys	<p><b>Awareness:</b> Confusion about eligibility criteria and/or the full range of services provided by WIC.</p> <p><b>Experience:</b> Challenges scheduling and processing information from appointments. Some clinics were inconveniently located; others lacked dedicated spaces for children. Participants also faced challenges picking up vouchers because of work, childcare and transportation costs. Shopping experiences were challenging to participants because of the difficulty in finding the right items and the longer check-out process when using vouchers.</p> <p><b>Access:</b> Not knowing how to apply for the program; some prefer to apply online to clinic appointments. Language issues are a primary barrier for the non-English speaking WIC-eligible population. Some Latina families think they do not qualify because they (or family members) are not citizens and/or fear government services. Only a couple of former participants reported that transportation, work accommodations, or child care created barriers to their participation.</p> <p><b>Outreach:</b> The perception of need, or lack thereof, is strongly related to reasons why some former participants left the program, even when they were still eligible. Moderate stigma associated with use of the program, and government programs in general, was reported. Non-native English speakers had a hard time understanding what the program is based on outreach materials.</p>	<p><b>Awareness:</b> Improve communication around eligibility criteria and the program. Consider using email and/or text messages to update participants on their enrollment status and remind them of appointments and recertification.</p> <p><b>Experience:</b> Offer a variety of scheduling options. Allow workers to review records before meeting. Streamline and coordinate appointments by using the same staff member when possible. Increase capacity of culturally and linguistically diverse staff to increase access for eligible populations. Create areas for children. Work with grocery stores to improve labeling and store staff knowledge of WIC-approved products.</p> <p><b>Access:</b> Increase cultural responsiveness in nutrition education and clarify WIC policies/goals to address misconceptions during the first WIC certification visit. Continue exploring innovative service delivery models and leveraging technology to deliver WIC programs. Workshops, information fairs, and other partnerships with immigrant groups may be helpful.</p> <p><b>Outreach:</b> Partner with healthcare providers, hospitals and clinics, grocery stores, television and Facebook for outreach efforts. For messaging, use data to find compelling nutrition, feeding and breastfeeding information gained from WIC and participant quotes to provide snapshots of program value. Highlight services and benefits of program beyond food assistance more frequently. Dispel myths about program eligibility and explore ways to communicate more complicated areas such as conferred eligibility. Consider giving incentives to those who “refer a friend.”</p>
Bensley et al. (2014)	8,144 WIC clients in the western region in 2011	How do WIC participants currently use technology and what are their preferences for using new technologies?	Survey	Bilingual material is not sufficient to encourage internet programming. Latino WIC recipients face other barriers that include access to the internet and computer literacy.	Respondents were interested in video chat options, Facebook functions, checking EBT balances online and virtual appointment scheduling. However, the authors caution that areas served by WIC have varying levels of internet access, and thus adoption of technology should be commensurate with the needs of clients served by individual WIC clinics.
Hall, Cole-Lewis, & Bernhardt (2015)	89 unique studies related to text message interventions	How have mobile text messaging interventions improved public health and behavior change?	Literature review	N/A	Through a systematic review of the highest-quality reviews on text message interventions (TMI), the authors found that the majority of published TMIs were effective at addressing diabetes self-management, weight loss, physical activity, smoking cessation and medication adherence for antiretroviral therapy.

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Oliveira & Frazão (2015)	Various federal and state program managers, WIC researchers, representatives of WIC food manufacturers and members of WIC advocacy groups	How do WIC eligibility determination and the value of some WIC program benefits vary across geographic locations?	Interviews and Analysis of Administrative Data	A person who is eligible to participate in WIC in one geographic area may be deemed ineligible in another area due to variations in income eligibility. This is because State and local agencies have discretion in determining income eligibility, and because Medicaid and Supplemental Nutrition Assistance Program (SNAP) eligibility standards are different across States (participants in these programs are automatically income eligible for WIC).	N/A
Seth et al. (2015)	780 WIC staff and LA directors	What are best practices/ areas of concern for WIC agencies working with limited English proficiency clients?	Survey	Facilitating factors included cultural competency, material and translation resources, linguistic competency, professional development opportunities and rapport with clients. Challenges cited included linguistic challenges, lack of cultural competencies, issues related to the client–staff interaction and insufficient time, materials, and staffing.	Best practices inferred from the data relate to developing linguistic standards for bilingual staff, considerations for translating written materials, interpretation services, cultural competency and staff training.
California Department of Public Health (2016)	2010–12 data from California’s Maternal Infant Health Assessment survey	Why do eligible women not enroll in WIC?	Survey	Eligible nonparticipants reported the following reasons for not enrolling: not thinking they would qualify, perceived lack of need (overvaluing the economic benefits and undervaluing health benefits of WIC), did not know about WIC, could not get to WIC, application/telephone barriers and negative view of WIC.	Strengthen partnerships with Medicaid and SNAP, as well as private insurers, to educate potential participants. Educate prenatal care providers about the impacts of WIC and encourage them to provide information. Focus messaging on health benefits of WIC rather than the common notion that it is economic relief.
C. Liu & H. Liu (2016)	1,634 women from the New York City area	What are the psychosocial concerns and structural barriers to WIC participation?	Survey	WIC-eligible women reporting unplanned pregnancies and fewer social supports tend to participate in WIC, but those who experience more structural barriers (e.g., transportation, difficulties obtaining appointments, child care) are less likely to participate.	N/A
Jackson & Mayne (2016)	4,049 children in utero through 11 months (from 37,110 child-months), and 14,348 children 1–5 (from 155,854 child-months)	During the Great Recession, 1. Did children’s WIC enrollment increase alongside economic need, and 2. How widely distributed was increased nutritional safety net participation across demographic groups?	Analysis of Administrative Data	After the official end of the recession in June 2009, participation begins to decline among eligible children, contrasting with participation rates of SNAP, which suggests that WIC participation may be more sensitive to budgetary and administrative factors than SNAP, as WIC has more barriers to enrollment and has a shorter certification period. The distribution of WIC enrollment and participation were largely stable. Age differences in enrollment remained similar over time. Across socioeconomic status, not all eligible children shared equally in increased enrollment, and unequal distribution of benefits has remained highly persistent over time with the exception of children living in near-poverty, just above the poverty line, who become more likely to enroll than their poorest peers. Racial/ethnic differences in enrollment remained fairly steady, with consistently higher participation among eligible Hispanic children, particularly those with foreign-born mothers.	N/A



Citation	Sample	Research Question	Methodology	Barriers	Strategies
Grodsky, Violante, Barrows & Gosliner (2017)	Field observations and interviews with WIC stakeholders in San Jose, California	What are barriers to WIC participation and what strategies can be employed to overcome them?	Literature review/ field observations/ interviews	The authors find that personal referrals are more effective than institutional channels, that WIC eligible families near income cutoffs don't think they are eligible and that transaction costs of WIC appointments stifle participation. Appointments can be difficult to schedule; documents are easy to forget. Nutrition education classes could be more engaging and interactive. Some participants don't shop at the optimal stores for them and their shopping experience has room for improvement. They also fail to make full use of their benefits before they expire. Participants drop out (failure to recognize full benefits, lack of data sharing).	Leverage social networks for targeted outreach; frame WIC as health promotion; provide transportation supports and flexible hours and appointments; personalize classes; offer childcare; improve clarity of conflict of interests faced by WIC staff when giving shopping advice; use reminders to prompt voucher use and recertification; make pre-checkout EBT updates available; and develop targeted re-enrollment systems.
Panzer et al. (2017)	Direct observations at clinic sites	What are the barriers to food benefit retrieval?	Focus groups and touchpoints	Participants identified childcare, transportation issues, long waits, confusion regarding eligibility, problems scheduling appointments and stigma as barriers to their ability to retrieve food instruments.	N/A
Panzer et al. (2017)	All women enrolled in WIC in Kentucky from 2012–13	What characteristics predict discontinuing participation in WIC?	Analysis of administrative data	Presumptive eligibility for Medicaid was the strongest predictor of nonparticipation. Among those who were not presumptively eligible, women who were the only ones in their household enrolled in the program were at higher risk of nonparticipation. Outreach strategies at the point of enrollment or when presumptive eligibility for Medicaid is granted could mitigate further nonparticipation.	Authors recommend utilizing audience segmentation to enhance outreach strategies. Rather than seeking out all nonparticipants, targeting those likely to respond may yield participation gains at a low cost.
Power, Braun, & Bersamin (2017)	975 Randomly selected WIC participants in remote Alaska Native communities	How do Alaska Native communities use technology and is virtual nutrition education feasible?	Survey	Potential barriers to receiving nutrition information via media technologies included slow internet, no computer access and costly internet service.	Technology use was common among Alaska Native WIC participants, particularly smartphone use and texting. Respondents were less likely to have home computers and internet access. Respondents deemed it very useful to obtain nutrition information digitally. The most popular ways included email, online videos, Facebook and text message.
Vermont Department of Health (2017)	Vermont WIC participants from 2015–2016	What is the impact of automated text messages on WIC retention?	Difference in Differences	N/A	WIC sites that participated in the automated text program saw retention rates decline by 3 percentage points less than non-participating sites.
Whaley et al. (2017)	9,632 14-month-old California WIC participants	What factors are associated with higher retention rates after age 1?	Regression	Breastfeeding, online nutrition education, receiving WIC services in the months leading up to an infant's first birthday, redeeming at least 75% of WIC vouchers and Medicaid enrollment were positively associated with recertification. SNAP participation and interactive text messaging were unrelated.	Strategies to promote ongoing participation in the program include support for both breastfeeding and non-breastfeeding women, technology-based strategies and targeted outreach to pregnant women, participants who have missed benefits, and participants who have not redeemed their benefits.
GAO (2018)	National data and case studies of four states	What are barriers to access of food assistance programs by college students	Review of previous research, analysis of administrative data and interviews	Research and interviews identified a lack of knowledge of program availability and eligibility requirements among college women who are pregnant or postpartum as a barrier to accessing needed food assistance, including WIC.	Providing more complete information to students through designated campus offices could help bridge the gap in knowledge among eligible women.



Citation	Sample	Research Question	Methodology	Barriers	Strategies
National WIC Association (2018)	389 WIC staff members across the country	What activities are WIC agencies pursuing to increase coverage rates?	Survey	N/A	<p><b>Common strategies:</b> social media, phone calls or text messages to past participants and participants with unredeemed benefits, displays at community events and partner organizations and building relationships with community partners.</p> <p><b>Less common:</b> WIC appointments/certifications at partner organizations, mailers sent to past participants and other ENPs, unpaid media outreach, WIC clinic events, promotions on agency websites and hiring a dedicated outreach coordinator.</p> <p><b>Least used activities included:</b> WIC appointments and/or displays at grocery stores, paid media and social media outreach, online WIC applications, knocking on doors, promotional text messages and blogs.</p>
Chorniy, Currie, & Sonchak (2019)	All children born in South Carolina between 2004 and 2009	What are within-family determinants of WIC participation?	Analysis of administrative data	There are a number of factors that affect the likelihood of prenatal enrollment in WIC. Women who are carrying a male child are less likely to participate, which supports research that suggests greater paternal support when the expected child is male. Women are more likely to enroll if they are pregnant for the first time, which may reflect the idea that women with other children find it harder to get to WIC clinics. Women are also more likely to enroll if they have attended some college, if they are a non-smoker or have been diagnosed with diabetes and if they are in the lowest income category.	N/A
Dockray, Silas, Eppes, Machell, & Neuberger (2019)	WIC staff	What have early adopters of WIC digital tools learned?	Interviews	Participants miss appointments, unable to make or reschedule appointments, don't know what or whom to bring to appointments, fail to redeem all of their benefits and struggle to complete the enrollment process	Two-way text messaging; online and mobile tools to manage appointments and digital paperwork; video calling; digitized approved products lists, shopping assistance mobile apps.
Henchy (2019)	N/A	What are the strategies to improve WIC coverage and use?	Literature review/ case studies	Misconceptions about eligibility criteria, transportation costs, language and cultural barriers, negative clinic experiences, loss of time away from work, dissatisfaction with the children's food package and difficulty redeeming benefits.	<p><b>Outreach and promotion:</b> correct common misconceptions, multicultural and multilingual approach, social media</p> <p><b>Partnerships:</b> communication, coordination and referrals (health professionals, SNAP and social services, early care and education, nonprofit and community-based organizations, and businesses)</p> <p><b>WIC clinic experience:</b> accommodating hours, establish adjunctive eligibility via computer access to Medicaid and SNAP data, appointment and eligibility reminders, multiple languages, minimize required WIC visits, assist with transportation</p> <p><b>Reaching and serving special populations:</b> partner with agencies serving kinship caregivers, immigrant families, rural families, college student parents</p> <p><b>Technology:</b> websites, apps, and digital tools for appointment scheduling, benefits management and document submission</p>

Citation	Sample	Research Question	Methodology	Barriers	Strategies
Neuberger (2019)	WIC experts and WIC agency staff	What are strategies to streamline WIC eligibility and enrollment?	Interviews	N/A	<p>Five areas for streamlining:</p> <ol style="list-style-type: none"> <li>1. WIC clinic processes (flexible scheduling, more efficient documentation review, confirming adjunctive eligibility during pre-screen)</li> <li>2. Communicating with applicants and participants (SMS appointment reminders with two-way capability, email, online and mobile tools, video chat, online applications/linking to other programs)</li> <li>3. Policy flexibility (utilizing electronic documents, eliminating redundancies, extending certification periods)</li> <li>4. Data and reports (using data to track/identify ENPs, predict attrition)</li> <li>5. Collaboration and outreach (warm referrals from SNAP and/or Medicaid offices, collaboration with Head Start, 211, offsite enrollment)</li> </ol>