2019 - 2022 WIC Special Project Innovation Grant

Final Report to the U.S. Department of Agriculture Food and Nutrition Service

Colorado Special Supplemental Nutrition Program for Women, Infants and Children Program
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COLORADO
Department of Public Health & Environment

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Acknowledgements

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The Gretchen Swanson Center for Nutrition

USDA FNS Mountain Plains Regional Office

Healthy Together

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COWIC Project Team:
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Executive Summary

Introduction and Background

WIC enrollment and participation are declining nationwide as client perceptions and experiences fail to live up to their expectations. There are a variety of reasons that people decide the value of the program is not worth the time and effort it demands for participation, including many related to the outdated regulatory requirements and habits of transacting all portions of the certification process in person, face to face, in the clinic. The frustration of not having the right paperwork on top of the time taken away from work or home, potential transportation challenges, social stigma, managing small and/or multiple children in a clinic setting, and other issues of daily life can build up for clients and ultimately drive them away from the program and its inherent benefits. With participation declining, the project intended to discover how to increase the value of the client experience by adopting a more agile approach and digital interoperability by building sustainable business operations at the state and local levels and interactive customer tools for greater engagement. The targeted population was the adult participants in the Colorado WIC Program (COWIC) who are responsible for the administrative tasks associated with participation for themselves and the children in their care and the approximately 400 local agency staff providing direct services statewide.

Project Overview

The goals of the project included improvements to the customer experience, focusing particularly on steps for certification and recertification, as well as strategies and tools to increase automation and efficiency, freeing up staff resources for direct customer service rather than manual administrative data input and transfer. This would be accomplished through implementation of a Customer Relationship Management (CRM) system to interface with the existing MIS and databases, building a client portal to collect digital signatures and create a way for clients to upload certification documents remotely, and improving communication between clinic staff and clients with two-way messaging. The original timeline was March 2021 to September 2022 and was extended to April 2023.

Key Findings

Unfortunately, there are no key findings to report at this time, as the project has not yet launched. If the product can be successfully cleared through state security compliance, then two pilot agencies will implement the tool and use it for a period of at least three months to allow for adjustment of training resources and operational processes before releasing it statewide. There is no impact in the local context to report as this project has not yet been launched in local agencies.

Project Conclusions and Lessons Learned

This project was hindered significantly by staff turnover, protracted procurement and contracting processes, an initial lack of technical business requirements and knowledge, extended time needed for development and testing, unanticipated need to augment the contractor's training materials, and an extended data security review process. Many significant lessons were learned during this project related to time and team management, important questions to ask when designing and implementing a technology project, and communication improvements.

Applying Lessons to Future Projects

Once the portal was functional in the test environment, it was perceived to improve efficiencies and reduce time spent on administrative tasks which indicates that the concept for this project was sound and holds promise, with refinement, for future enhancements. Future projects will benefit from learning the importance of change management and clear communication planning, more realistic timelines, and the incorporation of additional technical experts to supplement the WIC subject matter expertise on project teams.

Section 1: Introduction

1.1 Background

The Colorado WIC Program (COWIC) has a long history of innovation, including early adoption of eWIC and WICShopper, the use of texting for outreach, automated and centralized referral management systems, and an online referral form that can be embedded into medical records systems. To continue this legacy and serve the families of Colorado as a streamlined and efficient program, a "digital roadmap" was completed in December 2020. This process resulted in a five-year strategic plan for technology investment to improve customer service, enhance the certification process, and encourage ongoing participation in WIC using innovative approaches that support modern families. The WSPI grant was the first step in implementing this plan under the Enhancement Opportunity 1: *Adopt policies, practices, and/or technologies that enable participants to initiate and complete allowable portions of certification procedures online.*

COWIC served 131,810 individuals in FY20, a slight decrease from prior years. About 40% of participants were children (age 1-4), 30% were infants, and 30% were women (pregnant, post-partum and/or breastfeeding). Caseload in December 2020 was 79,043. The voluntary exit rate was 66%, meaning two-thirds of the people leaving the program are still eligible but leaving by choice, and there was a net loss of 4415 enrollments in December 2020. With nearly 3,000 referrals coming to the program and corresponding high levels of certifications each month, there was clearly a huge opportunity to reduce barriers and improve customer service to keep people in the program for as long as they are able.

As discussed in the 2020 "WIC Tech: A Matter of Equity" report by the California WIC Association, "...electronic tools that are or can be used for WIC program administration and service delivery to clients can reduce inequities that prevent access to the program by offering more ways to engage participants and meet diverse needs." COWIC heard the same feedback directly from clients during a series of regional tours in 2018, when focus group participants indicated that the most challenging parts of the program were bringing the right documents to the clinic and buying authorized foods at the store. Even staff polled during the tours recognized this issue with one saying, "For us, one of every six or seven [WIC applicants] bring everything right the first time."

Modern parents grew up in a digital age and have high expectations for 24/7 accessibility to services via their smartphone, tablet, or laptop. COWIC has had a very positive client response to text appointment reminders and the WICShopper app, and the goals for retention and enrollment depend on meeting clients "where they are" rather than forcing them to conform to processes that feel outdated, inefficient, confusing, and inaccessible.

The previously-mentioned Roadmap resulted from work with Forum One, a digital solutions agency, in Fall 2020 to guide strategic, client-focused technology investments in COWIC for the next five years. The plan addresses the platforms, processes, and people needed to meet the goals of modernizing clients' digital experience and a shift from a singular focus on compliance. This approach is rooted in several key principles:

> *Client-centered:* A digital ecosystem designed around the client experience utilizing resources for intentional innovation with perceived value for all current and potential clients.
>
> *Integrated:* Break down the silos of information that currently prevent streamlined client journeys and efficient internal workflows.
>
> *Accessible:* Provide client access to tools and information empowering them to get the maximum value out of the COWIC program in environments where clients feel safe and valued. Staff have access to timely reports to make data-informed decisions.
>
> *Flexible:* Technical infrastructure needs to provide a flexible and future-proof foundation as client needs, technology, and the program evolve over time.
>
> *Scalable:* Plan for organizational and operational growth that does not require complete restructuring of existing systems.
>
> *Secure:* Safeguards to protect the large amounts of personal information handled by program staff and giving clients the ability to manage consent for sharing their information.

A thorough assessment of the current state of COWIC technology identified many inefficiencies and highlighted the technical reasons that many new ideas are challenging, mostly due to system silos that require a lot of manual staff work-arounds to extract and combine data. The MIS used for program compliance and reporting is not designed for client-facing interaction and is difficult to connect to other systems. The texting platform is completely separate from all other systems and is clumsy to operate which leads to delays in responsiveness and lack of specificity in direct-to-customer messaging. Methods for clients to submit documentation for eligibility are not integrated into Compass or other data systems, require manual transfer, and cannot be managed by participants. Appointment self-scheduling is not feasible because the functionality is buried within the MIS and not external facing. Reimagining the COWIC digital ecosystem to be client-centered would lay the foundation for a more nimble and responsive program for years to come.

1.2 Goals and Objectives

In addition to the above, COWIC identified other key data points and barriers that aligned with the goals of WSPI to improve customer experience. These included:

- Challenges with retention indicated by a voluntary exit rate of 66%, meaning two-thirds of people leaving the program were still categorically eligible for benefits.
- High numbers of provisional certifications, partly due to the complexity and extent of documentation that must be provided by clients at the time of their appointments.
- Feedback from staff, clients, and partners that the administrative burden during appointments takes time away from opportunities for nutrition education, breastfeeding support, referrals, explanation of benefits, and relationship building.

> *"The frustration of not having the right paperwork on top of the time taken away from work or home, potential transportation challenges, social stigma, managing small and/or multiple children in a clinic setting, and other issues of daily life can build up for clients and ultimately drive them away from the program and its inherent benefits." - COWIC clinic staff*

The results of a COWC client survey in 2019 reflected similar opinions about the use of technology, including these answers to the question, "*Do you agree or disagree that any of the following technology options would make it easier for you to be on WIC?"*

- Texting clinic staff if I need to schedule an appointment or have a question:
    - English respondents: 77% Agree
    - Spanish respondents: 85% Agree
- Making or changing appointments online:
    - English respondents: 71% Agree
    - Spanish respondents:78% Agree
- Filling out some paperwork online to shorten my time in the clinic:
    - English respondents: 74% Agree
    - Spanish respondents:72% Agree
- Accessing next appointment information online:
    - English respondents: 83% Agree
    - Spanish respondents:82% Agree
- Getting information via email rather than handouts:
    - English respondents: 71% Agree
    - Spanish respondents:76% Agree
- I would not want more technology options:
    - English respondents: 50% Disagree, 30% Not Sure/No Opinion, 20% Agree.
    - Spanish respondents: 47% Disagree, 32% Not Sure/No Opinion, 21% Agree.

The goals of the project as part of the COWIC digital transformation effort were to create improvements to the client experience, focusing particularly on steps for certification and recertification, as well as strategies and tools to increase automation and efficiency, and freeing up staff resources for direct customer service rather than manual administrative data input and transfer. By modernizing the digital experience for clients without diminishing the value of in-person engagement, the traditional clinic experience could be revitalized while maintaining the program's proven efficacy. It would also meet the goals of COWIC to become a more efficient organization with increased system interoperability.

The technologies planned to meet these goals were:

- *Implementation of a customer relationship management (CRM) system:* Although designed primarily for sales, the features of a CRM consolidate client information into a single repository so users can better organize and access data, automate common reports, and monitor communication more effectively.
- *Creation of a client portal:* A portal empowers participants to manage elements of their own experience while also relieving burdensome tasks for state and local agency staff.
- *Addition of integrated and two-way messaging:* Texting has proven to be a successful outreach tool for clients, but current platforms limit flexibility and speed. By adopting a modern, centralized messaging platform connected in real time and with an easy-to-use interface, staff can more easily communicate with clients.

The measurable outcomes to measure whether these goals were achieved were:

- Greater client satisfaction with the program, resulting in a higher retention rate, lower rates of early exits for eligible participants, and increased participation and caseload.
- Increased time spent on nutrition education counseling, breastfeeding support, and referrals to other services due to reduced time needed for manual administrative tasks like scheduling, gathering proofs, and entering basic client information into the MIS.
- Reduced time spent on manual data management tasks for state staff.
- Coordinated and personalized messaging to support ongoing program participation and leading to decreased appointment cancellations/no-shows.
- Increased staff productivity and satisfaction.

These tools empower clients throughout their COWIC journey and shift the technology system focus to greater customer service and support. By increasing the value of the client experience, COWIC hoped to build an even more equitable, accessible, and scalable program for families.

Section 2: Project Implementation

2.1 Project Timeline

Date	Activity	Key Staff	Notes
3/21 - 4/21	Grant kickoff meeting; Project Manager (N. Huebler) hired	H. Hoffman M. Mize	
4/21 - 6/21	Discovery (Agency, Client Engagement) & Request for Information (RFI) Released	COWIC Project Team (S. Reed, V. Hodack, M. McCloskey, J. Gonzales, V. Jimenez, M. George-Nichols, B. Boyd, C. Padilla), N. Huebler	Responses to the RFI were utilized to prepare a realistic scope and budget for future RFP.
7/21 - 8/21	Requirements Gathering & Baseline Metrics	Project Team, N. Huebler	
9/21 - 10/21	Request for Proposals (RFP) Released	K. Gasowski, H. Hoffman, N. Huebler, Project Team	
12/21 - 4/22	Vendor Selected; Contracting Process	K. Gasowski, H. Hoffman, N. Huebler, Project Team	Few responses to RFP (several citing budget constraints) resulted in the decision to choose the vendor proposing a custom-built product. The impact of this decision on timeline and technical burden placed on the Project Team was underestimated. Also, features were modified due to misunderstanding about “messaging”

Date	Activity	Key Staff	Notes
			versus “texting” requirement (resulting in need for additional sub-contractor to provide texting services).
5/22 - 9/22	Development & Data Use Agreement	Project Team, N. Huebler	Took longer than anticipated, primarily due to discovery that the business requirements lacked technical detail. As a result, this process had to be re-done in partnership with the vendor.
10/22 - 12/22	Data Sharing & User Acceptance Testing for Portal, Document Uploads, and Client Forms; Texting	Project Team, M. Bailey (replaced N. Huebler)	UAT by state office staff using “dummy” family data. Local agencies were not engaged due to timing concerns.
1/23 - 3/23	Security Compliance Review; Training Development; Request for Grant Period Extension	Project Team, M. Bailey, K. Gasowski, H. Hoffman	Security review by the state Office of Information Technology (OIT) was an unforeseen process/delay due to earlier omissions of critical security “gating” steps. Training materials in development with COWIC staff.
4/23	Planned Release to Pilot Agencies (delayed)	Project Team, M. Bailey	Decision to release as a pilot to two

Date	Activity	Key Staff	Notes
			select local agencies was informed by the need for real-world testing before broad release. Release delayed substantially (until time of final reporting) due to extended security compliance review/response period.

2.2 Key Actions Taken to Implement Project

As noted above, this project has been delayed until the time of final reporting due to an extended security review and response. It is unclear at this time whether or not an "authority to operate" (ATO) will be granted to allow usage of the product. Therefore, implementation actions have not been taken at this time.

2.3 Project Budget and Expenses

The total cost of this project was $819,083. Expenses totaled 77% of the March 2021 revised budget, primarily due to the project stalling before it could be implemented.

Personnel $220,765

This covered the Data & Evaluation Specialist (0.4 FTE), Systems Manager (0.1 FTE), Fiscal Manager (started at 0.2 FTE, reduced to 0 in budget revision), Director (0.1 FTE), Project Manager (contract, no fringe benefits).

Operating Expenses $468,774

This included computer equipment, travel, contracts, and training. The majority was the contract with the vendor, Healthy Together, for $468,774 which was slightly over the budget due to the need for an additional subcontractor to provide texting services and a longer project period that was unanticipated.

Administrative Costs $120,543

This represents the departmental indirect rate which decreased during the project period and resulted in savings.

Complete budget spreadsheets are included in the Appendix.

2.4 Project Transferability

There are valuable lessons from this project that may be useful for other WIC agencies in terms of project management, working with vendors, and strategic investments in technology.

Managing a complex project as a state WIC agency has unique challenges. The deep subject matter expertise of many staff is required for an extended period of time. Often, however, this needs to be coupled with additional technical expertise from outside the program (which may or may not be available) to ensure that operational specifications are augmented with the language and communication style of non-WIC vendors. This project experienced several challenges due to misunderstandings such as using “texting” and “messaging” interchangeably; once the technical details were understood, it became apparent that these are two very different methods of communication that have distinct operational and technology implications. The impact of the workload on the core members of the Project Team was underestimated and then multiplied exponentially when the timeline was extended. There were prolonged periods of development and testing that were also underestimated in the project timeline and in the impact to workloads. The training materials provided by the vendor required extensive rework to meet COWIC standards and formats. The length of procurement and contracting processes were seriously underestimated in the project timeline, although there were also new requirements implemented at the time of this contract that staff had never done before which was unanticipated. The project manager was hired as a contractor who left the organization before the end of the project (again, due to timeline extensions), resulting in the need to pause the project and onboard another project manager with no previous WIC experience. There were critical documentation and procedural elements that were missed during this transition which had a negative impact on the outcome, the most significant of which was a required security review by the state information technology team that was not initiated until the last stages of the project. As a result, many questions and requirements were raised that could and should have been addressed earlier. It is unclear at the time of this writing whether or not the project will be cleared for release through this process.

An after-action review was conducted with COWIC staff to clarify specific strengths and opportunities for improvement in future projects. The primary lessons included:

- Vendor was committed and very easy to work with.
- Need for clear roles/expectations/time commitment.
- Poor communication about due dates or when deadlines were changed.

- Scope creep: As time went on, it felt like we lost sight of the goal and ended up with a different product than originally thought.
- Need for more technical expertise on the team.
- Timeline did not allow for local agency input.
- Need for more intentional change management. Buy-in for the project wasn't there from the beginning for all team members.
- Staff feel more confident in knowing to ask more clarifying questions and explanations to ensure the contractor understands the ask/need and the team is getting what they want.

Section 3: Evaluation Design & Methods

3.1 Evaluation Design and Setting

A RE-AIM framework (included in the Appendix) guided the evaluation and data collection efforts for this project. The settings/locations and dates of data collection were not utilized due to the incomplete nature of the project. A set of administrative data was collected as a baseline:

● Number of total monthly referrals to the WIC program before implementation via COWIC referral system in June 2021.

● Client satisfaction via NWA participant survey in March 2021.

3.2 Data Sources and Measurement Tools

The primary sources of data to measure the impact of the innovation were planned to be a client baseline (pre) survey and staff and client satisfaction (post) surveys.

The staff survey was designed to assess satisfaction with the new portal as well as whether or not they perceived having more time to spend on nutrition education counseling, breastfeeding support, and referrals to other services compared to before implementation. Questions included:

- Overall, what is your satisfaction with the new client portal?
- Agree or disagree with the following statements?
    - The new client portal makes my work more efficient.
    - I have more time to spend on client-focused activities such as nutrition education, breastfeeding
    - support and referrals.
    - Compared to the previous system, I spend less time on manual administrative tasks (such as
    - scheduling, gathering proofs, etc).
    - I feel confident using the new client portal.
    - The training I received prepared me well to use the new client portal.
- Is there any other feedback about the new system that you would like to share with us? (Write-in)

The participant questions were included as part of the annual National WIC Association participant satisfaction survey; baseline questions were asked in March 2021 and planned for June 2023 for post-implementation assessment.

3.3 Participants and Recruitment

A total of 4,270 COWIC participants responded to the 2021 NWA Participant Satisfaction Survey with 3,239 indicating English as their preferred language and 1,031 indicating Spanish. The eligibility criteria were to have recently enrolled or recertified on WIC. Respondents were asked which methods (email, text, drop-off, mail, fax, video) they had used to provide required documentation and to rate their comfort on a scale of 1 (uncomfortable) to 4 (comfortable) with the methods they had used to share their personal information with WIC. Results were as follows:

WIC Enrollment or Recertification Documentation during the COVID-19 Pandemic in Colorado and All States, National WIC Association Participant Survey, 2021.

	English (n=3239)	Spanish (n=1031)	State Total (n=4270)	All States (n=22642)
Method of providing documents, n (%)				
Email	1581 (72.8)	334 (50.4)	1915 (67.5)	7668 (58.9)
Text	924 (42.5)	517 (78.0)	1441 (50.8)	4683 (36.0)
Dropped off at WIC site	463 (21.3)	197 (29.7)	660 (23.3)	4648 (35.1)
U.S. mail	160 (7.4)	127 (19.2)	287 (10.1)	1687 (13.6)
Fax	83 (3.8)	73 (11.0)	156 (5.5)	1035 (8.0)
Video	50 (2.3)	60 (9.0)	110 (3.9)	438 (3.7)
Comfort providing documents, mean	3.58	3.69	3.60	3.64
Comfortable	1478	499	1977	9604)
Somewhat comfortable	504	126	630	2605
Somewhat uncomfortable	161	32	193	794
Uncomfortable	30	6	36	238

Results indicated a very high level of acceptance by COWIC clients for utilizing alternate processes or technologies to provide personal information required for certification. This supports the strategy of introducing innovative methods such as a portal to securely transmit this documentation to enhance participant satisfaction with their program experience.

3.4 Evaluation Variables

Adoption:	None.
Implementation:	Self-reported staff satisfaction and time assessment via survey.
	Assessment of increased operational efficiency (method TBD).
	Staff uptake of new innovation.
Reach:	Total monthly referrals to the WIC program before and after implementation of the innovations (number of certifications will be the numerator during that same time frame).
Effectiveness:	Client satisfaction via NWA participant survey (pre 2021, post 2023).
Maintenance:	None.

3.5 Analysis Approach

Data were not analyzed since the project was not initiated as of the time of this writing.

Section 4: Project Findings

There are no key findings to report as the project has not yet launched. If the product can be successfully cleared through security compliance, then two pilot agencies will implement the tool and use it for a period of at least three months to allow for adjustment of training resources and operational processes before releasing statewide.

Section 5: Project Conclusions & Lessons Learned

5.1 Conclusions and Next Steps

As noted above, this project has been delayed until the time of final reporting due to an extended security review and response. It is unclear at this time whether or not an "authority to operate" (ATO) will be granted to allow usage of the product.

If ATO is granted, the project team will resume with completion of the training materials and the pilot with two local agencies. At the end of the pilot period, any needed adjustments to policy and training will be made prior to releasing the portal statewide. This will be accompanied by a robust promotion of the portal to clients to encourage uptake. It is anticipated that the additional functionality will be very helpful as COVID-19 waivers expire and clients and staff alike are getting used to a new operational model. It may encourage clients to stay engaged with the COWIC program since they can do some of the certification process in the comfort of their own homes and enjoy shorter and/or more substantive appointments as a result.

If the ATO is not granted by the end of the contract period, the portal will not be usable. Although the COWIC team has learned a lot of important lessons from this project that can be applied to future endeavors, it would be a deeply disappointing outcome after the investment of so many resources.

It is unclear at this point if there will be opportunities to refine this innovation, which aspects of it are sustainable versus which ones are not, or exactly which next steps to build on the portal will be possible.

5.2 Lessons Learned

This project was negatively impacted by staff turnover, protracted procurement and contracting processes, lack of technical business requirements and knowledge, extended staff time needed for development and testing due to building a product from scratch, unanticipated need to augment the contractor's training materials, and an extended data security review process. Other lessons learned by COWIC throughout the course of this project were to plan for a pilot release with a limited number of local agencies to test the efficacy of training materials before introducing statewide, and to have clearer discussions about the expectations and time requirements needed for user acceptance testing and development of training materials to ensure that workloads can accommodate this demand. This should be reassessed anytime the project timeline is adjusted.

The top three best practices to recommend to other WIC agencies seeking to implement similar enhancements are:

- Additional project time and technical expertise is required if developing a product from scratch versus "off the shelf" to ensure that business requirements are detailed enough for implementation.
- Stability of project management and leadership is crucial; if turnover is unavoidable, it is very important to ensure that new team members are supported and brought up to speed with detailed documentation to avoid decisions or steps being missed.
- Substantial time is needed in the project timeline to allow for technical contract review and approval by all parties as well as stronger lines of communication for awareness about new internal review processes and contract requirements.

In 20/20 hindsight, decisions and actions that would be done differently include:

- Adjust workloads to accommodate staff time needed for the development of training materials and participation in multiple rounds of user acceptance testing.
- Invest in more technical support and expertise to develop business requirements.
- Allocate more time to internal processes, review, and unforeseen delays.
- Engage more guidance and support for contract requirements and approval processes.
- Choose a commercial off-the-shelf (COTS) product already in use versus building from scratch to reduce development time and need for training design.
- Invest in more substantive change management efforts at the beginning of the project to build enthusiasm and investment from all staff in a successful outcome.

End of Project Updates

July 7, 2023

Status of Project

The project funded with the WSPI grant continues to be in a holding pattern due to the ongoing discussions between the contractor and the state's Office of Information Technology (OIT) regarding security and documentation concerns. The Authority to Operate (ATO) has not been issued for the product at this time. The contractor has worked in good faith to provide additional documentation and clarifications to assure OIT that the standards for user data safety have been met. All requested information has been provided and is now under review. It is anticipated that OIT will render a verdict by the end of the month as to whether COWIC will be allowed to use the product or not.

Project Funding

Unfortunately, some grant funds that would have been utilized for training and implementation activities will have to be returned as they have not been expended as of the end of the no-cost extension on June 30, 2023. Close-out documentation will be submitted by the COWIC fiscal team. Given the uncertainty of the situation, it was decided that another extension would not be requested.

Implementation Plans

If the product receives an ATO, COWIC state staff will need to decide if, when, and how to roll out the tool to local agency staff and clients. It is unfortunate that the portal was not available in time to incorporate into hybrid operations guidance issued recently to address the requirements of new USDA-FNS waivers, as it would have been a useful way for clients to upload documents in preparation for appointments, including anthropometric information from visits with their health care provider. It is hoped that this functionality will eventually be available to COWIC staff and clients at some point in the future.

Clarification Regarding Product Testing

The product testing that occurred during the timeline of this project was user acceptance testing (UAT) and was used throughout development to ensure that functionality was working as intended. A database of "dummy" family data was created so file transfers, document uploads,

and participant details utilized for UAT were not exposing actual client information to potential risk or loss. The COWIC project team contributed their time and expertise to this process. The original project plan was to also invite local agency staff (likely from a standing LA Training Advisory Committee) to help with UAT, but this was put on hold when the security concerns interrupted the project. The testing process was iterative and informed the contractor as to the adjustments that were needed to ensure smooth operation of the portal; it also helped COWIC staff to envision the training needs and questions that would likely arise from local agency staff and clients after implementation. As noted in the "Lessons Learned" section of this document, the entire period of development and building for this product was highly informative and provided insights about the limitations of the COWIC MIS system, the intricacies of real-time data access, the pros and cons of specific requirements, and, ultimately, the realistic expectations for what a stand-alone tool could accomplish.

Section 6: Appendices

A. Budget & Tracking Spreadsheets

B. One-page Introduction to Project

C. RE-AIM Matrix

D. Local Agency Staff Survey

E. Client Baseline Survey

F. Client Satisfaction Survey

G. Staff Training Template

H. Colorado WIC State Report (NWA Survey, 2021)

Updated: 06.05.2023

FFY2021 WIC Special Projects Initiative (WSPI) Grant

	Federal Fiscal Year 2021					
	Q3 Budget	Q3 Expended	Q4 Budget	Q4 Expended	FFY21Totals Budget	FFY21 Totals Expended
State Costs		4/2021 - 6/2021		7/2021 - 9/2021		
		(10, 11, 12)		(01, 02, 03)		
Personnel Costs:						
Data & Evaluation Specialist (.4 FTE)	$ 8,400.00		$ 8,400.00		$ 16,800	$ -
NSB Systems Manager (.1 FTE)	$ 3,177.00		$ 3,177.00		$ 6,354	$ -
Fiscal Manager (.2 FTE)	$ 6,385.00		$ 6,385.00		$ 12,770	$ -
WIC Director (.1 FTE)	$ 3,696.00		$ 3,696.00		$ 7,392	$ -
Project Manager (Contract - No fringe)	$ 32,000.00	$ 27,080.41	$ 32,000.00	$ 21,506.96	$ 64,000	$ 48,587
SUB- TOTAL PERSONNEL	**$ 53,658.00**	**$ 27,080.41**	**$ 53,658.00**	**$ 21,506.96**	**$ 107,316**	**$ 48,587**
savings					**$ 43,316**	
TOTAL PERSONNEL					**$ 64,000**	**$ 48,587**
Operating Expenses:						
Computer/Equipment	$ 2,500.00		$ -		$ 2,500	$ -
Travel	$ -		$ -		$ -	$ -
Contracts			$ 150,000.00		$ 150,000	$ -
					$ -	$ -
TOTAL OPERATING EXPENSES	**$ 2,500.00**	**$ -**	**$ 150,000.00**	**$ -**	**$ 152,500**	**$ -**
Administrative Costs:					$ -	$ -
TOTAL INDIRECT COSTS	**$ 24,157.00**	**$ 5,307.76**	**$ 24,732.00**	**$ 3,742.22**	**$ 48,889**	**$ 9,050**
FFY21 Total	**$ 80,315**	**$ 32,388**	**$ 228,390**	**$ 25,249**	**$ 308,705**	**$ 57,637**

	Federal Fiscal Year 2022/2023											
	Q1 Budget	Q1 Expended	Q2 Budget	Q2 Expended	Q3 Budget	Q3 Expended	Q4 Budget	Q4 Expended	Q1 - FY2023 Budget	Q1 - FY2023 Expended	FFY22/23 Totals Budget	FFY22/23 Totals Expended
State Costs		10/2021 - 12/2021		1/2022 - 3/2022		4/2022 - 6/2022		7/2022 - 9/2022		10/2022 - 12/2022		
		(04, 05, 06)		(07, 08, 09)		(10, 11, 12)		(01, 02, 03)		(04, 05, 06)		
Personnel Costs:												
Data & Evaluation Specialist (.4 FTE)	$ 8,400.00	$ 94.52	$ 8,400.00	$ 187.25	$ 8,400.00	$ 66.71	$ 8,400.00	$ 127.41	$ 8,400.00	$ 49.05	$ 42,000	$ 524.94
NSB Systems Manager (.1 FTE)	$ 3,177.00		$ 3,177.00		$ 3,183.00	$ -	$ 3,183.00	$ -	$ 3,183.00	$ 357.80	$ 15,903	$ 358
Fiscal Manager (.2 FTE)	$ 6,385.00		$ 6,385.00		$ -	$ -	$ -	$ -	$ -	$ -	$ 12,770	$ -
WIC Director (.1 FTE)	$ 3,696.00		$ 3,696.00		$ 3,292.00	$ -	$ 3,292.00	$ -	$ 3,292.00	$ 4,153.39	$ 17,268	$ 4,153
Project Manager (Contract - No fringe)	$ 32,000.00	$ 31,473.65	$ 32,000.00	$ 20,982.40	$ 32,000.00	$ 51,406.88	$ 32,000.00	$ 21,506.96	$ 32,000.00	$ 20,982.40	$ 160,000	$ 146,352
												$ -
SUB- TOTAL PERSONNEL	**$ 53,658.00**	**$ 31,568.17**	**$ 53,658.00**	**$ 21,169.65**	**$ 46,875.00**	**$ 51,473.59**	**$ 46,875.00**	**$ 21,634.37**	**$ 46,875.00**	**$ 25,542.64**	**$ 247,941**	**$ 151,388**
savings											**$ 43,075**	
TOTAL PERSONNEL											**$ 204,866**	**$ 151,388**
											\	
Operating Expenses:												
Computer/Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Travel	$ -	$ -	$ -	$ -	$ 2,500.00	$ -	$ -	$ -	$ -	$ -	$ 2,500	$ -
Contracts	$ 150,000.00	$ -	$ 150,000.00	$ -	$ 150,000.00	$ 119,000.00	$ -	$ 157,500.00	$ -	$ 192,273.89	$ 450,000	$ 468,774
Training	$ -	$ -	$ 5,000.00	$ -	$ 5,000.00	$ -	$ -	$ -	$ -	$ -	$ 10,000	$ -
TOTAL OPERATING EXPENSES	**$ 150,000.00**	**$ -**	**$ 155,000.00**	**$ -**	**$ 157,500.00**	**$ 119,000.00**	**$ -**	**$ 157,500.00**	**$ -**	**$ 192,273.89**	**$ 462,500**	**$ 468,774**
Administrative Costs:												
TOTAL INDIRECT COSTS	**$ 24,732.00**	**$ 5,492.86**	**$ 24,732.00**	**$ 25.46**	**$ 24,732.00**	**$ 33,320.69**	**$ 24,732.00**	**$ 18,709.80**	**$ 24,732.00**	**$ 41,765.96**	**$ 123,660**	**$ 99,315**
FFY22 Total	**$ 228,390**	**$ 37,061**	**$ 233,390**	**$ 21,195**	**$ 229,107**	**$ 203,794**	**$ 71,607**	**$ 197,844**	**$ 71,607**	**$ 259,582**	**$ 791,026**	**$ 719,477**

	Federal Fiscal Year 2022/2023					
	Q1 Budget	Q1 Expended	Q2 Budget	Q2 Expended	FFY22/23 Totals Budget	FFY22/23 Totals Expended
State Costs		01/2023 - 03/2023		04/23-06/2023		
		(07, 08, 09)		(10, 11, 12)		
Personnel Costs:						
Data & Evaluation Specialist (.4 FTE)		$ 198.57			$ -	$ 198.57
NSB Systems Manager (.1 FTE)					$ -	$ -
Fiscal Manager (.2 FTE)					$ -	$ -
WIC Director (.1 FTE)		$ 6,136.32		$ 816.21	$ -	$ 6,953
Project Manager (Contract - No fringe)		$ 13,638.56			$ -	$ 13,639
						$ -
SUB- TOTAL PERSONNEL	**$ -**	**$ 19,973.45**	**$ -**	**$ 816.21**	**$ -**	**$ 20,790**
savings						
TOTAL PERSONNEL						**$ 20,790**
Operating Expenses:						
Computer/Equipment	$ -	$ -		$ -	$ -	$ -
Travel		$ -		$ -	$ -	$ -
Contracts		$ -		$ -	$ -	$ -

Training		$ -		$ -		$ -	$ -
TOTAL OPERATING EXPENSES		**$ -**		**$ -**		**$ -**	**$ -**
Administrative Costs:							
TOTAL INDIRECT COSTS		**$ 11,507.34**		**$ 671.17**		**$ -**	**$ 12,179**
FFY22 Total	**$ -**	**$ 31,481**	**$ -**	**$ 1,487**		**$ -**	**$ 32,968**

	Project Totals Budget	Project Totals Expended	% Expended	
State Costs				**Original Budget**
Personnel	$268,866	$220,765	82%	$268,290
Operating Expenses	$615,000	$468,774	76%	$615,000
Indirect Expenses	$172,549	$120,543	70%	$173,125
Project Total	**$1,056,415**	**$810,083**	77%	$1,056,415

TOTAL WSPI Grant	**$1,056,415**
Total Projected Expenses	
TOTAL Unspent Funds	**$246,332**

WSPI Grant Budget_Colorado - REVISED Feb 19, 2021

March 1, 2021 - June 30, 2022				
Personnel	*FTE*	*Salary*	*Fringe*	*Total*
Data & Evaluation Specialist	0.4	$31,230.00	$10,770.00	$42,000.00
Project Manager (Contract - No fringe)	1	$160,000.00	$0.00	$160,000.00
NSB Systems Manager	0.1	$11,680.50	$4,204.50	$15,885.00
Fiscal Manager	0.2	$24,576.00	$7,344.30	$31,920.30
WIC Director	0.1	$13,677.00	$4,807.50	$18,484.50
Total Personnel		$241,163.50	$27,126.30	**$268,289.80**
**Fringe is approximately 26% of Salary*				
Total Travel (for closeout meeting)				**$2,500.00**
Total Equipment				**$0.00**
Supplies				
Computer - Project Manager			$2,500.00	
Total Supplies				**$2,500.00**
Contractual (Proposed Projects/Technologies)				
Client CRM			$250,000.00	
Digital Signatures			$50,000.00	
Texting Integration			$100,000.00	
Client Portal - Design			$200,000.00	
Training for New Technologies			$10,000.00	
Total Contractual				**$610,000.00**
Subtotal				**$883,289.80**
Indirect				$173,124.80
PROJECT TOTAL				**$1,056,414.60**

WSPI Grant Budget_Colorado - REVISED Mar 21, 2022

March 1, 2021 - December 31, 2022					
Personnel	*FTE*	*Salary*	*Fringe*	*Total*	*Change*
Data & Evaluation Specialist	0.31	$16,791.00	$8,650.00	$25,441.00	39% decrease
Project Manager (Contract - No fringe)	1.00	$224,000.00	$0.00	$224,000.00	40% increase
NSB Systems Manager	0.08	$6,112.00	$3,438.00	$9,550.00	40% decrease
Fiscal Manager	0.00	$0.00	$0.00	$0.00	100% decrease
WIC Director	0.06	$6,420.00	$3,457.00	$9,877.00	82% decrease
Total Personnel		$253,323.00	$15,545.00	**$268,868.00**	
**Fringe is approximately 26% of Salary*					
Total Travel (for closeout meeting)				**$2,500.00**	
Total Equipment				**$0.00**	
Supplies					
Computer - Project Manager			$2,500.00		
Total Supplies				**$2,500.00**	
Contractual (Proposed Projects/Technologies)					
Client CRM			$250,000.00		
Digital Signatures			$50,000.00		
Texting Integration			$100,000.00		
Client Portal - Design			$200,000.00		
Training for New Technologies			$10,000.00		
Total Contractual				**$610,000.00**	
Subtotal				**$883,868.00**	
Indirect				$172,547.00	
PROJECT TOTAL				**$1,056,415.00**	

Colorado WIC Special Project Innovation Grant (WSPI)

Modernizing the COWIC experience.

The U.S. Department of Agriculture Food and Nutrition Service partnered with The Council of State Governments to offer special project grant awards to six select state and local agencies that administer the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). The Colorado WIC Program (COWIC) received $1.1M in March 2021 to develop, implement, and evaluate interventions to improve customer service in clinics and enhance the certification process. These activities are funded through June 2022.

In response to the COVID-19 Public Health Emergency, COWIC agencies adapted quickly and efficiently to continue providing high-quality services to families across the state. This experience showed how important it is to strengthen the use of technology while upholding program integrity and meeting the needs and expectations of modern families.

Modernizing the COWIC Experience

With nearly 3000 online referrals coming into the program each month, there is a huge opportunity to reduce barriers and improve customer service to keep people in the program for as long as they are eligible. In order to place the needs of clients at the center of program technology, while also optimizing administrative efficiency and keeping an eye towards sustainability and growth, COWIC is prioritizing the development of online client tools, greater automation and efficiency of data systems, and consistent participant feedback mechanisms. To ensure program success, training will be provided to all staff. COWIC values personal contact between participants and staff and seeks to enhance the traditional in-person service delivery model. The lived experiences of COWIC staff and families will inform the design of these online tools. Throughout the grant, COWIC will engage with staff and clients in a meaningful way to ensure the modernization is useful and accessible.

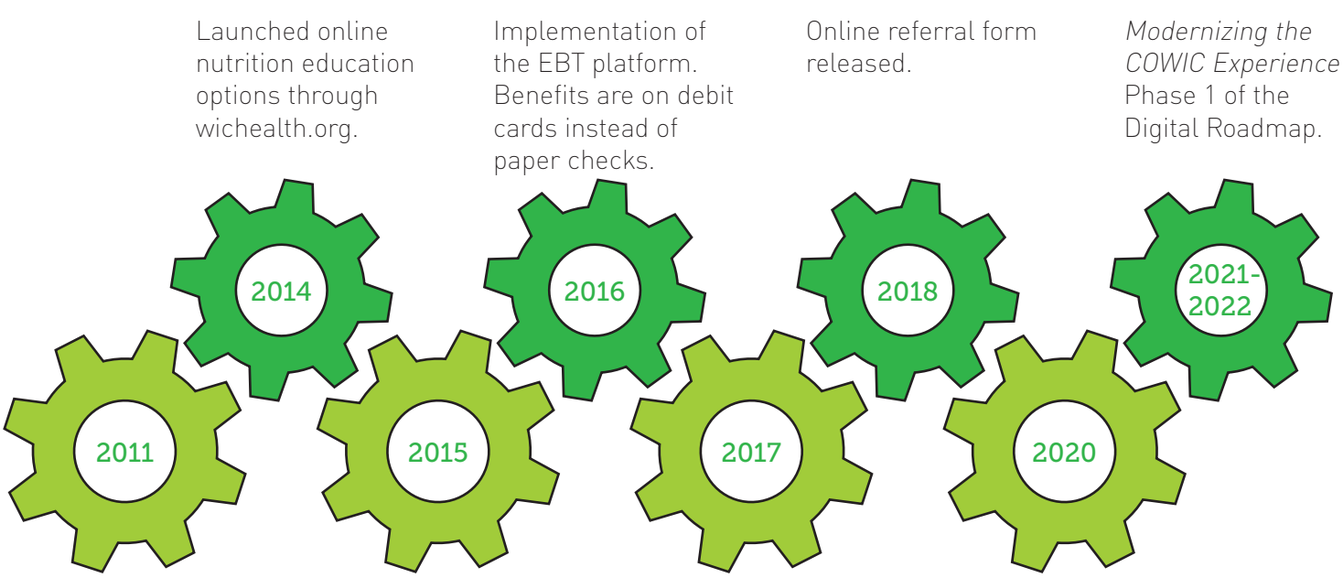
Current Technology

Prior to the COVID-19 Public Health Emergency, most COWIC services were completed through in-person appointments. A considerable amount of the certification and recertification appointment time was spent on reviewing required documentation and other administrative duties which left less time for client support, relationship building, and nutrition education, which is the heart and soul of the program. This traditional approach also limited clients to weekday business hours for services which can be challenging for busy, working families.

New Technology

As COWIC modernizes the client experience, the goals are to:

- Create a secure, online database for clients to upload required documents prior to appointments, allowing COWIC clients the opportunity to submit paperwork at their convenience.
- Allow clinic and phone appointments to be more client-centered and less administratively burdensome on staff. COWIC staff will be able to collect and review information ahead of time rather than during the appointment.
- Integrate texting, appointment requests, and other systems for efficiency and enhanced customer service to create a sustainable and efficient base for future technology improvements.



2011: Updated management information system, Compass, goes live.

2014: Launched online nutrition education options through wichealth.org.

2015: Automated client text messaging begins, including notifications on appointment reminders and "out of benefits."

2016: Implementation of the EBT platform. Benefits are on debit cards instead of paper checks.

2017: WICShopper App released. The app allows clients to access their food benefit balance and scan items to see if they are authorized for purchase.

ColoradoWIC.gov website updated.

2018: Online referral form released.

2020: COWIC Digital Roadmap (five-year plan) designed for transformation of client services and staff support.

2021-2022: *Modernizing the COWIC Experience:* Phase 1 of the Digital Roadmap.

RE-AIM Component	Evaluation Question	Metric/Measure	Person or Data Source	Date & Data Collection Frequency	Updated Timeline and Details Based on Extension/Pilot instead of full rollout *(Feb 2023)*	Respondent Sampling and Recruitment	Person Responsible for Data Collection	Data Analysis Plans/Methods	General Comments /Questions	Requested as Part of Overarching Evaluation	Measure Category	Measure Definitions (if needed)	Instrument Question(s) (if applicable)	Numerator (if applicable)	Denominator (if applicable)	Pre Data	Method for Submitting Data to GSCN
Reach	What are the total monthly referrals to the WIC program before and after implementation of the innovations? (# of certifications will be the numerator during that same time frame)	Total number of monthly referrals	MIS, Referral Systems	Baseline: June 2021 Post-implementation: June 2022*	COWIC will provide these numbers for the local agency that participates in the pilot. Referral numbers and the conversion of referrals to enrollment data is available the 2nd month after data (ie April data available in June to give time for certifications to happen), so COWIC can provide data from April and May in early July 2023. The pilot is scheduled to roll out in April, but it may take a bit of time, so 2 months of data will hopefully allow for a fuller picture of impact. Colorado confirms that they will provide baseline data for the pilot agency as well.	Census	Morgan M (in coordination with Shelly R)	Pre/post comparison analysis, including significance testing		X	Number of participants reached	None	N/A			X Timeframe: monthly starting a year back from when project is implemented Due to GSCN: next 2 months (summer 2022)	GSCN SharePoint site
Implementation	Local agency staff satisfaction	Self-reported staff satisfaction with the new innovations (5-point Likert satisfaction scale)	Local agency staff survey	TBD (after innovations have been rolled out and staff has been trained, given time to actually utilize)	The staff at the pilot local agency (n=3) will be asked to complete this survey in April. Colorado will provide the survey results by mid-May at the latest (likely sooner, depending on when staff complete the survey.	Census	Morgan M to develop survey questions; multiple team members implement (TBD)	Descriptive statistics and thematic analysis of any open-ended questions	Q3	X	Staff satisfaction	None	See tab for copy of instrument.	N/A	N/A	N/A	GSCN SharePoint site
Implementation	Do local agency staff perceive that they have more time to spend on impactful work (nutrition education counseling, breastfeeding support, referrals to other services, etc.) compared to before the innovation was implemented?	Self-reported time assessment (i.e., compared to before the new systems, how much time do you have available to spend on nutrition education/BF support/referrals? Likert scale of less to more time	Local agency staff survey	TBD (after innovations have been rolled out and staff has been trained, given time to actually utilize)	The staff at the pilot local agency (n=3) will be asked to complete this survey in April.	Census	Morgan M to develop survey questions; multiple team members implement (TBD)	Descriptive statistics and thematic analysis of any open-ended questions	Q4	X	Staff efficiency	None	See tab for copy of instrument.	N/A	N/A	N/A	GSCN SharePoint site
Implementation	Do local agency staff perceive that they spend less time on manual administrative tasks (scheduling, gathering proofs, inputting basic client information) compared to before the innovation was implemented?	Self-reported staff time assessment (i.e., compared to new system, how much time do you spend on manual admin tasks? Likert scale of less to more time)	Local agency staff survey	TBD (after innovations have been rolled out and staff has been trained, given time to actually utilize)	The staff at the pilot local agency (n=3) will be asked to complete this survey in April.	Census	Morgan M to develop survey questions; multiple team members implement (TBD)	Descriptive statistics and thematic analysis of any open-ended questions	Q4	X	Staff efficiency	None	See tab for copy of instrument.	N/A	N/A	N/A	GSCN SharePoint site
Effectiveness	How do WIC clients feel about their experience?	Multiple items related to WIC client experience (comfort related to sharing documents, client satisfaction, etc.)	WIC client satisfaction survey	Baseline: March 2021 (NWA survey) Post: June 2022 (key questions from NWA survey will be asked again to assess changes in satisfaction)	Not possible with updated timeline. However, there will be a relatively small pool of clients within the timeline, so we are hopeful that GSCN's interviews with participants can accomplish this objective in place? We do plan to participate in NWA's 2nd round of this survey, but that will not be complete in time. Colorado confirms that it is good for GSCN to add these questions to the interview guide for comparison. Colorado can provide the baseline data (statewide, we do not have any way to stratify that data by location) along with the other survey results - or sooner if that would be preferable for GSCN.	Census invited to participate; N=4000 completes for baseline survey	Morgan M to analyze baseline survey results (in coordination with NWA); Morgan M to lead effort on post-implementation survey in June 2022	Descriptive statistics and thematic analysis of any open-ended questions	WICSERV, page 10-11; Q6-8;10	X	Participant satisfaction	None	See tab for copy of instrument.	N/A	N/A	X Timeframe: Due to GSCN: next 2 months (summer 2022)	GSCN SharePoint site
Implementation	**Short Term Outcomes** Do the new innovations result in increased operational efficiency?	Time spent on various administrative tasks for local and state agency staff	TBD (once CRM system is chosen, will determine if this is possible to estimate) This would be an objective estimate (vs subjective question in C7/C8). Still finalizing contracting details to determine if this is possible.	TBD at beginning of implementation phase	Working with the contractor to determine if it is possible for them to establish an objective number for the amount of time spent on various administrative tasks.	Census	Niko/Morgan/vendor	Descriptive statistics		X	Staff efficiency	None	See tab for copy of instrument.	N/A	N/A	N/A	GSCN SharePoint site
Implementation	**Short Term Outcomes** Have local agency staff implemented the new innovation?	Attendance at trainings; possible other metric if system allows for tracking of use of new features across agencies	GSCN staffing training template	COWIC will utilize GSCN staffing template for all trainings conducted at the state level. It is likely that other training will happen more one-on-one (less formal), so that will not be able to be assessed at the local level	COWIC will utilize the GSCN staffing template for the training conducted with the pilot agency local staff (n=3), which will occur in late March. As soon as training is completed, Colorado will send the training template to GSCN, so estimate providing this by the first week in April.	Census	Niko/Morgan/vendor	Descriptive statistics	COWIC will utilize the GSCN staffing training template to track training.	X	Staff training on innovation	None	See tab for copy of instrument.	N/A	N/A	N/A	GSCN SharePoint site
Effectiveness	**Short Term Outcomes** Are clients utilizing the newly available features?	Number of clients using each newly available feature (out of total number of clients)	TBD (once CRM system is chosen, will determine if/how this can be assessed)	Assessed at multiple points to understand uptake; 1 month, 3 months, 6 months after implementation	We are happy to provide the total numbers of clients within the pilot agency who used the system in early July along with the referral numbers. Because of the nature of the portal (clients will be exposed to it only as new clients or as they have recertification appointments, etc) it will take some time for it to reach a wider audience, so we are unlikely to be able to report data from any wider use beyond the pilot agency in time.	Census	Niko/Morgan/vendor	Descriptive statistics		X	Number of participants reached	None	N/A	Number of clients using each newly available feature	Total number of clients	N/A	GSCN SharePoint site

Date sent to GSCN/version date:	**2/11/2022**
File name:	**WSPI Grant Satisfaction Surveys Draft**

See green text for questions to be submitted to GSCN as part of the overarching evaluation.

Local Agency Staff Survey

1. Which region of Colorado do you work in? (drop down response options)

2. How long have you worked for WIC? (drop down categories)

3. Overall, what is your satisfaction with the new client portal?
   a. Very satisfied
   b. Satisfied
   c. Neither satisfied nor dissatisfied
   d. Dissatisfied
   e. Very dissatisfied

4. How much do you agree or disagree with each of the following statements?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
The new client portal makes my work more efficient					
Compared to the previous client portal, I have more time to spend on client-focused activities such as nutrition education, breastfeeding support and referrals					

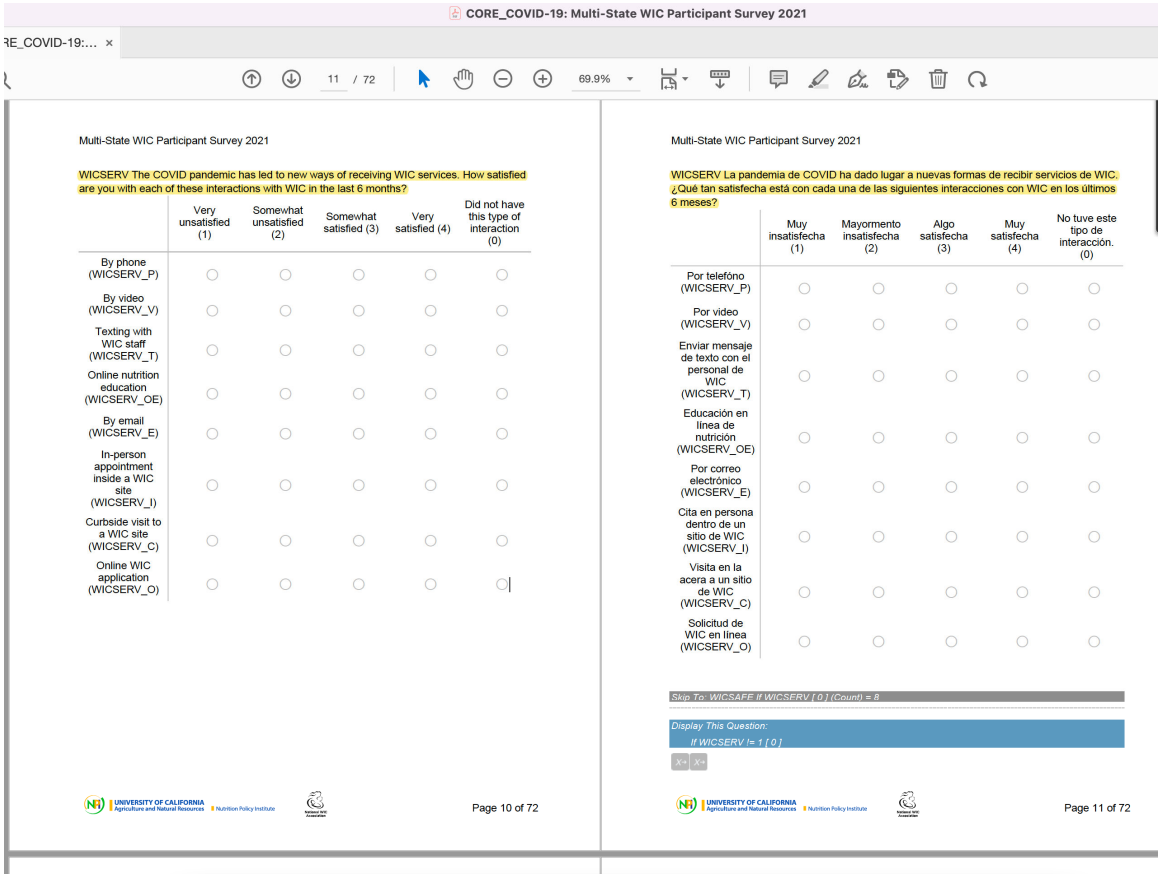
Compared to the previous system, I spend less time on manual administrative tasks (such as scheduling, gathering proofs, etc)

I feel confident using the new client portal

The training I received prepared me well to use the new client portal

5. Is there any other feedback about the new system that you would like to share with us? (Write-in)

Date sent to GSCN/version date:
File name: CORE_COVID-19: Multi-State WIC Participant Survey 2021; excerpt of pages 10-11
See screenshot below for questions to be submitted to GSCN as part of the overarching evaluation.



CORE_COVID-19: Multi-State WIC Participant Survey 2021

RE_COVID-19:... ×

11 / 72 69.9%

Multi-State WIC Participant Survey 2021

WICSERV The COVID pandemic has led to new ways of receiving WIC services. How satisfied are you with each of these interactions with WIC in the last 6 months?

	Very unsatisfied (1)	Somewhat unsatisfied (2)	Somewhat satisfied (3)	Very satisfied (4)	Did not have this type of interaction (0)
By phone (WICSERV_P)	○	○	○	○	○
By video (WICSERV_V)	○	○	○	○	○
Texting with WIC staff (WICSERV_T)	○	○	○	○	○
Online nutrition education (WICSERV_OE)	○	○	○	○	○
By email (WICSERV_E)	○	○	○	○	○
In-person appointment inside a WIC site (WICSERV_I)	○	○	○	○	○
Curbside visit to a WIC site (WICSERV_C)	○	○	○	○	○
Online WIC application (WICSERV_O)	○	○	○	○	○

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Multi-State WIC Participant Survey 2021

WICSERV La pandemia de COVID ha dado lugar a nuevas formas de recibir servicios de WIC. ¿Qué tan satisfecha está con cada una de las siguientes interacciones con WIC en los últimos 6 meses?

	Muy insatisfecha (1)	Mayormento insatisfecha (2)	Algo satisfecha (3)	Muy satisfecha (4)	No tuve este tipo de interacción. (0)
Por telefóno (WICSERV_P)	○	○	○	○	○
Por video (WICSERV_V)	○	○	○	○	○
Enviar mensaje de texto con el personal de WIC (WICSERV_T)	○	○	○	○	○
Educación en línea de nutrición (WICSERV_OE)	○	○	○	○	○
Por correo electrónico (WICSERV_E)	○	○	○	○	○
Cita en persona dentro de un sitio de WIC (WICSERV_I)	○	○	○	○	○
Visita en la acera a un sitio de WIC (WICSERV_C)	○	○	○	○	○
Solicitud de WIC en línea (WICSERV_O)	○	○	○	○	○

Skip To: WICSAFE If WICSERV [0] (Count) = 8

Display This Question:
If WICSERV != 1 [0]

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Date sent to GSCN/version date: 2/11/2022
File name: WSPI Grant Satisfaction Surveys Draft
See green text for questions to be submitted to GSCN as part of the overarching evaluation.

Participant Survey

Overall WIC satisfaction questions (follow-up from questions administered previously in March 2021)

1. How long have you been on WIC? (drop down categories)

2. Number and type of people in family on WIC?

3. Since [implementation date], did you have to provide WIC with documentation of your income, address and/or identification through email, text,
   a. Yes
   b. No

4. If yes, how did you provide documents showing income, address, and/or identification?
   a. Text
   b. Fax
   c. Email
   d. Mail
   e. Video
   f. Dropped it off at WIC site
   g. Uploaded to portal

5. How comfortable were you providing documents with WIC this way?
   a. Uncomfortable
   b. Somewhat uncomfortable
   c. Somewhat comfortable
   d. Comfortable

6. Since the pandemic, there have been new ways of receiving WIC services. How satisfied are you with each of these interactions with WIC in th

Staff Training on Intervention

Instructions: Enter each training provided on a separate row. If different types of staff are trained during the same training, indicate this when entering the number of staff trained. In the "Data Notes section please indicate if the training was tailored to a certain staff type and notes why there may be differences in the number of staff planned to be trained compared to the number of staff that were trained. See the example below for further clarification. Please include trainings provided to new staff that join after implementation and any re-trainings that are provided.

Type of Grant-funded Training	Date(s) of Training	Number of Staff Planned to be Trained by Staff Type	Number of Staff Actually Trained by Staff Type	Mode/Type of Instruction	Duration	Number of Sessions	Barriers and Challenges	Data Notes and Other Context
Example: New Intervention 101	*Example: August 1-2, 2021*	*Example: 3 clerks, 5 nutritionists, 2 managers*	*Example: 1 clerk, 5 nutritionists, 2 managers*	*Example: teleconference (remote due to COVID restrictions)*	*Example: 2 hours each session (8 hours total)*	*Example: 4 sessions*	*Example: not all staff were available on the same day so the training was split into two half days*	*Example: The two managers received an extra session to learn how to oversee and provide support to staff* *2 clerks were not available during the training session days.*
[enter text here]	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*
[enter text here]	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*
[enter text here]	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*
[enter text here]	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*
[enter text here]	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*
[enter text here]	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*	*[enter text here]*

Multi-State WIC Participant Satisfaction Survey: Learning from Program Adaptations during COVID

Results for: Colorado

Date: November 2021

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National WIC Association

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Introduction

The purpose of this project was to survey WIC participants in multiple states on their experiences and satisfaction with interactions and appointments with WIC, shopping for WIC foods, and using the WIC Card and App during the COVID-19 pandemic in 2020 to inform future policy and operational decisions, when remote services may no longer be necessary to mitigate the spread of COVID-19. This report summarizes survey responses from WIC participants from Colorado and all 12 states that participated in the project. Separate reports summarize responses from WIC participants in other states involved in the project (Connecticut, Inter-Tribal Council of Arizona, Louisiana, Maine, Minnesota, Nevada, New Hampshire, New Mexico, North Carolina, Ohio, and West Virginia). Variable names are included in red to facilitate states further exploration of the data. State-level data are not shown for survey questions a state chose not to ask. A comprehensive report, including details on the methods used and project strength and limitations, summarizes findings from all WIC participants combined across all 12 states.

Survey Respondents

Survey respondents in Colorado (n=4,270) and all states (n=26,642) were asked questions about their age, race/ethnicity, education, employment and/or school status, change in household income since the pandemic started in March 2020, and duration and family members on WIC (**Table 1**). Respondents also were asked about household food insecurity in the year prior to the pandemic and during the year of the pandemic, use of additional sources of free food besides WIC, and changes in their physical and mental health since the pandemic began.

Table 1. Survey Participant Characteristics for Colorado and All States[1]

	English (n=3239)	Spanish (n=1031)	State Total (n=4270)	All States (n=26642)
Age in years, n (%) [AGE]				
Under 18	26 (0.8)	22 (2.1)	48 (1.1)	240 (0.9)
18-24	441 (13.6)	84 (8.1)	525 (12.3)	3503 (13.1)
25-29	727 (22.4)	206 (20.0)	933 (21.9)	5752 (21.6)
30-34	843 (26.0)	169 (16.4)	1012 (23.7)	6784 (25.5)
35-39	658 (20.3)	376 (36.5)	1034 (24.2)	5848 (22.0)
40-50	414 (12.8)	149 (14.5)	563 (13.2)	3315 (12.4)
Over 50	118 (3.6)	6 (0.6)	124 (2.9)	872 (3.3)
Race/Ethnicity, n (%) [race_r]				
American Indian/Alaskan Native	51 (1.6)	2 (0.2)	53 (1.2)	722 (2.7)
Asian	113 (3.5)	0 (0.0)	113 (2.6)	864 (3.2)
Black	210 (6.5)	0 (0.0)	210 (4.9)	4145 (15.6)
Latinx	867 (26.8)	970 (94.1)	1837 (43.0)	6311 (23.7)
Native Hawaiian/other Pacific Islander	16 (0.5)	0 (0.0)	16 (0.4)	88 (0.3)
White	1453 (44.9)	14 (1.4)	1467 (34.4)	11333 (42.5)
Multiple	336 (10.4)	24 (2.3)	360 (8.4)	1731 (6.5)
Other	66 (2.0)	1 (0.1)	67 (1.6)	407 (1.5)
Education level, n (%) [EDU]				
No formal schooling	5 (0.2)	22 (2.1)	27 (0.6)	145 (0.5)
8th grade or less	25 (0.8)	125 (12.1)	150 (3.5)	580 (2.2)
Some high school	232 (7.2)	220 (21.3)	452 (10.6)	2376 (8.9)
High school	868 (26.8)	341 (33.1)	1209 (28.3)	7820 (29.4)
Some college	1434 (44.3)	113 (11.0)	1547 (36.2)	10285 (38.6)
College graduate	461 (14.2)	91 (8.8)	552 (12.9)	3291 (12.4)
Post graduate degree	131 (4.0)	12 (1.2)	143 (3.3)	997 (3.7)
Employment or school, n (%) [WORK]				
Not currently	1663 (51.3)	667 (64.7)	2330 (54.6)	12912 (48.5)
Full-time	718 (22.2)	72 (7.0)	790 (18.5)	6868 (25.8)
Part-time	622 (19.2)	105 (10.2)	727 (17.0)	4479 (16.8)
Change in household income since pandemic began,[2,3] n (%) [INCOME]				(n=22773)
Decreased	1681 (51.9)	748 (72.6)	2429 (56.9)	11859 (52.1)
Unchanged	1060 (32.7)	216 (21.0)	1276 (29.9)	7626 (33.5)
Increased	208 (6.4)	8 (0.8)	216 (5.1)	1405 (6.2)

	English (n=3239)	Spanish (n=1031)	State Total (n=4270)	All States (n=26642)
Duration of family on WIC, n (%) [WICTIME]				
3 or more years	1510 (46.6)	524 (50.8)	2034 (47.6)	13068 (49.1)
1-2 years	852 (26.3)	259 (25.1)	1111 (26.0)	7221 (27.1)
Less than 1 year	852 (26.3)	224 (21.7)	1076 (25.2)	6022 (22.6)
Family member(s) on WIC,[4] n (%) [WICPPT]				
Pregnant woman	346 (10.7)	110 (10.7)	456 (10.7)	2919 (11.0)
Breastfeeding woman	734 (22.7)	204 (19.8)	938 (22.0)	4266 (16.0)
Other postpartum woman	223 (6.9)	38 (3.7)	261 (6.1)	1897 (7.1)
Infant <12 months old	1108 (34.2)	302 (29.3)	1410 (33.0)	8354 (31.4)
1 year old child	822 (25.4)	224 (21.7)	1046 (24.5)	6706 (25.2)
2 year old child	716 (22.1)	216 (21.0)	932 (21.8)	6312 (23.7)
3 year old child	704 (21.7)	202 (19.6)	906 (21.2)	5667 (21.3)
4 year old child	616 (19.0)	219 (21.2)	835 (19.6)	5211 (19.6)
Used for food in past 30 days, n (%) [FOODSUP]				
SNAP	1352 (41.7)	239 (23.2)	1591 (37.3)	11481 (43.1)
School meals/school meal distribution site	923 (28.5)	416 (40.3)	1339 (31.4)	7706 (28.9)
Local food panty/food bank/religious organization	799 (24.7)	444 (43.1)	1243 (29.1)	6112 (22.9)
Food from family/friends	928 (28.7)	209 (20.3)	1137 (26.6)	6881 (25.8)
Pandemic-EBT[5]	778 (24.0)	202 (19.6)	980 (23.0)	7799 (30.9)
Any one of the above	2425 (74.9)	758 (73.5)	3183 (74.5)	20441 (76.7)
None of the above[6]	814 (25.1)	273 (26.5)	1087 (25.5)	6201 (23.3)
Household food insecurity,[7] n (%)				
During year prior to pandemic [HHFSP][2]	1549 (47.8)	596 (57.8)	2145 (50.2)	12374 (46.4)
During year of pandemic [HHFS][2]	1924 (59.4)	760 (73.7)	2684 (62.9)	15176 (57.0)
Perspective on change in health since pandemic began,[2,8] n (%)				
Physical health [PHEALTH]				(n=16568)
Unchanged	1929 (59.6)	689 (66.8)	2618 (61.3)	10324 (62.3)
Worse	818 (25.3)	117 (17.2)	995 (23.3)	3651 (22.0)
Better	251 (7.7)	38 (3.7)	289 (6.8)	1204 (7.3)
Mental health [MHEALTH]				(n=16568)
Unchanged	1689 (52.1)	749 (72.6)	2438 (57.1)	9297 (56.1)
Worse	1023 (31.6)	126 (12.2)	1149 (26.9)	4595 (27.7)
Better	194 (6.0)	27 (2.6)	221 (5.2)	908 (5.5)

1. Sample size may vary due to incomplete surveys or preference to not answer survey questions. Data presented in the 'All States' column are the averages of each state's average. Percentages may not add up to 100% as participants were able to select 'prefer not to answer' as a response option. Abbreviations: EBT, Electronic Benefits Transfer; SNAP, Supplemental Nutrition Assistance Program. Respondents marking Hispanic/Latinx were included in that category only, regardless of whether they marked other racial groups.
2. Start of pandemic referenced as March 2020.
3. Question not asked of ITCA and OH WIC participants.
4. Currently or at any time in prior year (since March 2020).
5. Response option not available to ME and WV WIC participants.
6. Respondents marked 'no' to all response options.
7. Based on 2 questions from the USDA Food Security Module, asked about the prior 12 months from present and 12 months from March 2019 when the pandemic began.
8. Question not asked of ITCA, NC and OH WIC participants.

WIC Enrollment or Recertification Documentation

Survey respondents who had enrolled or recertified on WIC during the pandemic were asked which methods they had used to provide the required documentation (e.g., income, address, identification) to determine program eligibility (**Table 2**). They also were asked to rate their comfort (on a scale of 1=uncomfortable to 4=comfortable) with the method(s) they had used to share their personal information with WIC.

Table 2. WIC Enrollment or Recertification Documentation during the COVID-19 Pandemic in Colorado and All States[1]

	English (n=3239)	Spanish (n=1031)	State Total (n=4270)	All States (n=22642)
Method of providing documents,[2] n (%) [WICDOC2]				
Email[3]	1581 (72.8)	334 (50.4)	1915 (67.5)	7668 (58.9)
Text[3]	924 (42.5)	517 (78.0)	1441 (50.8)	4683 (36.0)
Dropped off at WIC site	463 (21.3)	197 (29.7)	660 (23.3)	4648 (35.1)
U.S. mail[4]	160 (7.4)	127 (19.2)	287 (10.1)	1687 (13.6)
Fax[3]	83 (3.8)	73 (11.0)	156 (5.5)	1035 (8.0)
Video[4,5]	50 (2.3)	60 (9.0)	110 (3.9)	438 (3.7)
Comfort providing documents, Mean (SD)[6] [WICDOC3]	3.58 (0.69)	3.69 (0.61)	3.60 (0.67)	3.64 (0.08)
Comfortable	1478 (68.0)	499 (75.3)	1977 (69.7)	9604 (72.5)
Somewhat comfortable	504 (23.2)	126 (19.0)	630 (22.2)	2605 (19.7)
Somewhat uncomfortable	161 (7.4)	32 (4.8)	193 (6.8)	794 (6.0)
Uncomfortable	30 (1.4)	6 (0.9)	36 (1.3)	238 (1.8)

1. Sample size may vary due to incomplete surveys. Data presented in the 'All States' column are the averages of each state's average.
2. Respondents could select all that apply.
3. Response option not available for NM WIC participants
4. Response option not available for LA WIC participants.
5. Response option not available for NH WIC participants.
6. For the method(s) listed above (if included in their state survey) that the participant reported using. Scored as follows: Comfortable=4, Somewhat comfortable=3, Somewhat uncomfortable=2, Uncomfortable=1.

Nutrition Education and Other WIC Interactions

Survey respondents were asked about the ways in which they had received nutrition education and other interactions (e.g., enrolling or recertifying) with WIC during the COVID-19 pandemic. They also were asked to compare their satisfaction with their most recent phone, video, online nutrition education or curbside visit (on a scale of 1=very unsatisfied to 4=very satisfied), as well as the overall quality of WIC service during the pandemic compared to in-person interactions that were typical before the pandemic (on a scale of 1=worse to 3=better). Respondents who had interacted with WIC by phone, video, online nutrition education or curbside were also asked to select among a list of possible advantages and disadvantages of remote compared to in-person interactions with WIC (**Table 3**). Finally, respondents were asked about their preferences for in-person WIC services in the future when safe to return to WIC sites in-person (**Table 4**).

Table 3. Nutrition Education and Other Interactions with WIC during the COVID-19 Pandemic in Colorado and All States [1]

	English (n=3239)	Spanish (n=1031)	State Total (n=4270)	All States (n=26642)
Method(s) of interaction in last 6 months,[2] n (%) [WICSERV]				
Phone	3217 (99.3)	1006 (97.6)	4223 (98.9)	26046 (97.8)
Online nutrition education[3]	1510 (46.6)	525 (50.9)	2035 (47.7)	13397 (50.3)
In-person appointment[4,5]	992 (30.6)	476 (46.2)	1468 (34.4)	9748 (40.9)
Curbside[4,5]	606 (18.7)	415 (40.3)	1021 (23.9)	7735 (36.1)
Video[5-7]	573 (17.7)	405 (39.3)	978 (22.9)	5043 (21.4)
None of the above[8]	11 (0.3)	14 (1.4)	25 (0.6)	114 (0.4)
Satisfaction with interaction(s) in last 6 months (average score and distribution)[9] [WICSERV]				
Phone, Mean (SD)	3.42 (1.07)	3.38 (1.12)	3.41 (1.1)	3.40 (1.08)
Very satisfied, n (%)	2328 (71.9)	726 (70.4)	3054 (71.5)	18951 (71.1)
Somewhat satisfied, n (%)	351 (10.8)	89 (8.6)	440 (10.3)	2652 (10.0)
Somewhat unsatisfied, n (%)	90 (2.8)	38 (3.7)	128 (3.0)	679 (2.5)
Very unsatisfied, n (%)	448 (13.8)	153 (14.8)	601 (14.1)	3764 (14.1)
Did not have this type of interaction, n (%)	22 (0.7)	25 (2.4)	47 (1.1)	596 (2.2)
Had this type of interaction and satisfied, n (%)	2679 (83.3)	815 (81.0)	3494 (82.7)	21603 (82.9)
Online nutrition education,[3] Mean (SD)	3.34 (1.07)	3.33 (1.10)	3.34 (1.1)	3.40 (0.09)
Very satisfied, n (%)	994 (30.7)	351 (34.0)	1345 (31.5)	9221 (34.6)
Somewhat satisfied, n (%)	256 (7.9)	74 (7.2)	330 (7.7)	1912 (7.2)
Somewhat unsatisfied, n (%)	46 (1.4)	20 (1.9)	66 (1.5)	425 (1.6)
Very unsatisfied, n (%)	214 (6.6)	80 (7.8)	294 (6.9)	1839 (6.9)
Did not have this type of interaction, n (%)	1729 (53.4)	506 (49.1)	2235 (52.3)	13245 (49.7)
Had this type of interaction and satisfied, n (%)	1250 (82.8)	425 (81.0)	1675 (82.3)	11133 (83.1)
In-person appointment,[4,5] Mean (SD)	3.34 (1.09)	3.43 (1.03)	3.37 (1.07)	3.39 (0.11)
Very satisfied, n (%)	665 (20.5)	342 (33.2)	1007 (23.6)	6790 (28.5)
Somewhat satisfied, n (%)	144 (4.4)	53 (5.1)	197 (4.6)	1199 (5.0)
Somewhat unsatisfied, n (%)	36 (1.1)	25 (2.4)	61 (1.4)	361 (1.5)
Very unsatisfied, n (%)	147 (4.5)	56 (5.4)	203 (4.8)	1398 (5.9)
Did not have this type of interaction, n (%)	2247 (69.4)	555 (53.8)	2802 (65.6)	14113 (59.1)
Had this type of interaction and satisfied, n (%)	809 (81.6)	395 (83.0)	1204 (82.0)	7989 (82.0)

	English (n=3239)	Spanish (n=1031)	State Total (n=4270)	All States (n=26642)
Curbside,[4,5] Mean (SD)	3.19 (1.15)	3.29 (1.12)	3.23 (1.14)	3.37 (0.14)
Very satisfied, n (%)	365 (11.3)	273 (26.5)	638 (14.9)	5478 (25.6)
Somewhat satisfied, n (%)	99 (3.1)	56 (5.4)	155 (3.6)	862 (4.0)
Somewhat unsatisfied, n (%)	37 (1.1)	20 (1.9)	57 (1.3)	283 (1.3)
Very unsatisfied, n (%)	105 (3.2)	66 (6.4)	171 (4.0)	1112 (5.2)
Did not have this type of interaction, n (%)	2633 (81.3)	616 (59.7)	3249 (76.1)	13671 (63.9)
Had this type of interaction and satisfied, n (%)	464 (76.6)	329 (79.3)	793 (77.7)	6340 (82.0)
Video,[5-7] Mean (SD)	3.15 (1.17)	3.26 (1.13)	3.20 (1.2)	3.20 (0.08)
Very satisfied, n (%)	333 (10.3)	258 (25.0)	591 (13.8)	3104 (13.2)
Somewhat satisfied, n (%)	100 (3.1)	64 (6.2)	164 (3.8)	797 (3.4)
Somewhat unsatisfied, n (%)	34 (1.0)	15 (1.5)	49 (1.1)	240 (1.0)
Very unsatisfied, n (%)	106 (3.3)	68 (6.6)	174 (4.1)	902 (3.8)
Did not have this type of interaction, n (%)	2666 (82.3)	626 (60.7)	3292 (77.1)	3.42 (0.05)
Had this type of interaction and satisfied, n (%)	433 (75.6)	322 (79.5)	755 (77.2)	3901 (77.4)
Assessment of most recent interaction compared to past in-person appointments (average and distribution)[10] [SERV]				
Phone, Mean (SD)	2.44 (0.57)	2.57 (0.51)	2.47 (0.56)	2.47 (0.06)
Better, n (%)	1232 (38.3)	480 (47.7)	1712 (40.5)	11275 (43.3)
Same, n (%)	1243 (38.6)	357 (35.5)	1600 (37.9)	9677 (37.2)
Worse, n (%)	108 (3.4)	4 (0.4)	112 (2.7)	611 (2.3)
Not sure, n (%)	80 (2.5)	20 (2.0)	100 (2.4)	978 (3.8)
Have not had in-person appointment yet, n (%)	554 (17.2)	145 (14.4)	699 (16.6)	3505 (13.5)
Had this type of interaction and rated as better or same, n (%)	2475 (92.9)	837 (97.2)	3312 (94.0)	20952 (93.0)
Online nutrition education,[3] Mean (SD)	2.37 (0.53)	2.58 (0.51)	2.43 (0.53)	2.41 (0.08)
Better, n (%)	425 (28.1)	229 (43.6)	654 (32.1)	4421 (33.7)
Same, n (%)	625 (41.4)	161 (30.7)	786 (38.6)	5055 (38.6)
Worse, n (%)	25 (1.7)	2 (0.4)	27 (1.3)	198 (1.5)
Not sure, n (%)	167 (11.1)	21 (4.0)	188 (9.2)	1351 (10.3)
Have not had in-person appointment yet, n (%)	268 (17.7)	112 (21.3)	380 (18.7)	2083 (15.9)
Had this type of interaction and rated as better or same, n (%)	1050 (84.5)	390 (94.4)	1440 (87.0)	9476 (86.0)
Curbside,[4,5] Mean (SD)	2.33 (0.54)	2.59 (0.51)	2.44 (0.54)	2.41 (0.09)
Better, n (%)	123 (20.3)	170 (41.0)	293 (28.7)	2773 (35.9)
Same, n (%)	205 (33.8)	112 (27.0)	317 (31.0)	2710 (35.0)
Worse, n (%)	12 (2.0)	3 (0.7)	15 (1.5)	192 (2.5)
Not sure, n (%)	117 (19.3)	41 (9.9)	158 (15.5)	781 (10.1)
Have not had in-person appointment yet, n (%)	149 (24.6)	89 (21.4)	238 (23.3)	1279 (16.5)
Had this type of interaction and rated as better or same, n (%)	328 (71.8)	282 (86.5)	610 (77.9)	5483 (84.9)
Video,[5-7] Mean (SD)	2.36 (0.54)	2.55 (0.51)	2.45 (0.53)	2.38 (0.13)
Better, n (%)	108 (18.8)	135 (33.3)	243 (24.8)	1288 (25.5)
Same, n (%)	165 (28.8)	108 (26.7)	273 (27.9)	1374 (27.2)
Worse, n (%)	8 (1.4)	1 (0.2)	9 (0.9)	71 (1.4)
Not sure, n (%)	134 (23.4)	29 (7.2)	163 (16.7)	957 (19.0)
Have not had in-person appointment yet, n (%)	158 (27.6)	132 (32.6)	290 (29.7)	1353 (26.8)

	English (n=3239)	Spanish (n=1031)	State Total (n=4270)	All States (n=26642)
Had this type of interaction and rated as better or same, n (%)	273 (65.8)	243 (89.0)	516 (75.0)	2662 (72.1)
Advantages of most recent WIC appointment,[11] n (%) [WICAPT_adv]	(n=987)	(n=473)	(n=1460)	(n=10500)
Helped protect family health and safety during COVID[12]	895 (90.7)	460 (97.3)	1355 (92.8)	9781 (93.2)
Felt safe and comfortable with WIC's COVID precautions[12]	892 (90.4)	458 (96.8)	1350 (92.5)	9711 (92.5)
Easier not to have to take children[12]	826 (83.7)	419 (88.6)	1245 (85.3)	9020 (85.9)
Saved time and money as no travel[6,12]	810 (82.1)	406 (85.8)	1216 (83.3)	7502 (82.9)
Liked using measurements from doctor[12,13]	664 (67.3)	308 (65.1)	972 (66.6)	4738 (60.0)
Did not have to miss work/school[6,12]	646 (65.5)	228 (48.2)	874 (59.9)	5885 (65.0)
None of the above[8]	1 (0.1)	1 (0.2)	2 (0.1)	21 (0.2)
Disadvantages of most recent WIC appointment,[11] n (%) [WICAPT_dis]	(n=987)	(n=473)	(n=1460)	(n=10500)
Missed seeing WIC staff in-person[12]	416 (42.1)	285 (60.3)	701 (48.0)	4178 (39.8)
Inadequate time to talk with WIC staff[12]	90 (9.1)	210 (44.4)	300 (20.5)	1656 (15.8)
Concerned about privacy[12]	123 (12.5)	37 (7.8)	160 (11.0)	1318 (12.6)
Hard to hear[12]	56 (5.7)	29 (6.1)	85 (5.8)	584 (5.6)
Phone call or video connection dropped[12]	38 (3.9)	17 (3.6)	55 (3.8)	389 (3.7)
None of the above	217 (22.0)	51 (10.8)	268 (18.4)	2273 (21.6)
Overall quality of services during COVID,[14] Mean (SD) [WICQUAL]	2.43 (0.75)	2.49 (0.60)	2.45 (0.72)	2.34 (0.09)
Better, n (%)	687 (21.2)	371 (36.0)	1058 (24.8)	8607 (32.3)
Same, n (%)	1511 (46.7)	485 (47.0)	1996 (46.7)	11347 (42.6)
Worse, n (%)	132 (4.1)	8 (0.8)	140 (3.3)	931 (3.5)
Not sure, n (%)	285 (8.8)	39 (3.8)	324 (7.6)	1959 (7.4)
Didn't come to WIC before pandemic, n (%)	624 (19.3)	128 (12.4)	752 (17.6)	3798 (14.3)
Came to WIC before pandemic and rated as better or same, n (%)	2198 (84.1)	856 (94.8)	3054 (86.8)	19954 (87.3)

1. Sample size may vary due to incomplete surveys or because not relevant to answer question. Data presented in the 'All States' column are the averages of each state's average.
2. Respondents could select all that apply.
3. Nutrition education in CO was provided via wichealth.org.
4. Response option not available for CT WIC participants.
5. Response option not available for NM WIC participants.
6. Response option not available for LA WIC participants.
7. Response option not available for NH WIC participants.
8. Respondents marked 'no' to all response options.
9. Scored as follows: Very satisfied=4, Somewhat satisfied=3, Somewhat unsatisfied=2, Very unsatisfied=1.
10. n (%) includes any respondent who had phone, video, online nutrition education or curbside interaction with WIC. Scored as follows: better=3, same=2, worse=1.
11. n (%) only includes the subset of respondents who marked one of the listed advantages or disadvantages and had phone, video, online nutrition education or curbside interaction with WIC. Percentages may not add up to 100% as participants were allowed to select 'not applicable or not sure' as a response option.
12. Response option not available for OH WIC participants.
13. Response option not available for ITCA WIC participants.
14. Scored as follows: better=3, same=2, worse=1.

Table 4. Preferences for In-person WIC Services after Resolution of the COVID-19 Pandemic in Colorado and All States[1]

	English (n=3239)	Spanish (n=1031)	State Total (n=4270)	All States (n=26642)
Protections when in-person WIC visits initially resume,[2] n (%) [WICSAFE]				
Have sufficient masks for family	2704 (83.5)	841 (81.6)	3545 (83.0)	17245 (82.8)
WIC staff wear masks	2383 (73.6)	958 (92.9)	3341 (78.8)	17255 (82.9)
Remote education, counseling and paperwork so in-person only for measurements	2469 (76.2)	823 (79.8)	3292 (77.1)	16679 (80.1)
Sites set up for social distancing	2234 (69.0)	923 (89.5)	3157 (73.9)	16318 (78.4)
Limits on number of people inside with others waiting outside	2104 (65.0)	834 (80.9)	2938 (68.8)	15526 (74.6)
WIC participants wear masks	1615 (49.9)	803 (77.9)	2418 (56.6)	13049 (62.7)
None of the above[3]	28 (0.9)	2 (0.2)	30 (0.7)	99 (0.5)
Ways to receive in-person WIC services after the pandemic, n (%) [WICREC]				
Measurements taken	1943 (60.0)	749 (72.6)	2692 (63.0)	14617 (54.9)
Pick up items at site (e.g. WIC card, breast pump)[4]	1605 (49.6)	625 (60.6)	2230 (52.2)	10087 (43.9)
One on one counseling with WIC staff	1327 (41.0)	704 (68.3)	2031 (47.6)	11176 (41.9)
Breastfeeding support[5]	1350 (41.7)	585 (56.7)	1935 (45.3)	9610 (36.1)
Classes with other participants[6]	653 (20.2)	345 (33.5)	998 (23.4)	4486 (18.8)
None of the above[3]	242 (7.5)	17 (1.6)	259 (6.1)	2919 (11.0)
Frequency of in-person visits,[7] n (%) [WICFREQ]				
Continue remote WIC services	1392 (43.0)	249 (24.2)	1641 (38.4)	9518 (45.4)
Every 3 months	667 (20.6)	329 (31.9)	996 (23.3)	4094 (19.5)
Every 6 months	579 (17.9)	265 (25.7)	844 (19.8)	3761 (17.9)
Every year	301 (9.3)	63 (6.1)	364 (8.5)	1548 (7.4)
Every month	88 (2.7)	82 (8.0)	170 (4.0)	716 (3.4)
Not sure	212 (6.5)	43 (4.2)	255 (6.0)	1341 (6.4)

1. Sample size may vary due to incomplete surveys. Percentages may not add up to 100% as participants were able to select 'not sure' as a response option. Data presented in the 'All States' column are the averages of each state's average.
2. Question not asked of MN and OH WIC participants.
3. Respondents marked 'no' to all response options.
4. Response option not available to ITCA and OH WIC participants.
5. All respondents were able to respond to this question, not just those that were prenatal or breastfeeding participants, which may explain the low number of participants that selected this service.
6. Response option not available to MN WIC participants.
7. Question not asked of LA, NM and OH WIC participants as offline WIC Cards must be loaded every 3 months.
8.

Shopping for WIC Foods

Because of disruptions in the food retail supply chain during the pandemic that limited stock in some grocery retailers, the USDA granted states a waiver to expand WIC-eligible food lists. In states that were implementing these waivers at the time of the survey (CT, LA, ME, NC, NH, NM, NV, OH), survey respondents were asked if they were aware of the expanded food options (data not collected in Colorado). Respondents in Colorado and all states were asked about changes in their shopping experiences in the 6 months prior to survey completion and reasons for not buying all of their WIC foods (**Table 5**). Respondents in some states (CT, ITCA, LA, ME, MN, NC, NH, NM, NV, OH, WV) were asked about several shopping options they would use if available (data not collected in Colorado).

Table 5. Shopping Experiences for WIC Foods during the COVID-19 Pandemic in Colorado and All States[1]

	English (n=3239)	Spanish (n=1031)	State Total (n=4270)	All States (n=26642)
Shopping experiences in the 6 months prior to survey completion, n (%) [FOODEXP]				
Shopped more at stores with self-checkout[2]	1637 (60.6)	361 (39.1)	1998 (55.1)	7231 (42.4)
Shortage of WIC foods	1600 (57.4)	450 (46.6)	2050 (54.6)	11819 (50.8)
Difficulty finding childcare	1229 (45.8)	364 (37.4)	1593 (43.6)	9040 (39.4)
Purchased *more* WIC foods	864 (35.7)	288 (32.7)	1152 (34.9)	7382 (35.6)
Concerned for safety	907 (30.9)	247 (25.5)	1154 (29.5)	6820 (28.0)
Purchased *fewer* WIC foods	502 (21.1)	137 (15.7)	639 (19.7)	4213 (20.5)
Difficulty finding transportation	331 (12.7)	197 (21.6)	528 (15.0)	2991 (13.8)
None of the above[3]	424 (13.3)	195 (19.1)	619 (14.7)	4121 (15.8)
Reasons families did not buy all their WIC foods n (%) [BUYREAS]				
Did not find WIC foods at store	1553 (53.7)	539 (57.0)	2092 (54.5)	11447 (48.7)
Online shopping for WIC foods unavailable[4]	1605 (64.3)	109 (14.8)	1714 (53.0)	10561 (52.6)
Curbside pick-up for WIC foods unavailable[4]	1461 (60.8)	106 (15.5)	1567 (50.8)	10098 (51.2)
Do not like some WIC food choices	1247 (46.3)	422 (51.8)	1669 (47.6)	9204 (42.1)
Did not feel safe at store due to COVID	1011 (34.8)	404 (44.4)	1415 (37.1)	8495 (36.5)
Lack of transportation	369 (14.0)	446 (51.8)	815 (23.3)	4081 (18.8)
Did not receive WIC card in time[5]	151 (6.1)	382 (47.2)	533 (16.3)	1634 (12.7)
Did not need WIC as much due to SNAP	287 (14.4)	118 (17.1)	405 (15.1)	2944 (16.6)
Did not need WIC as much due to food pantries/meal distribution sites	275 (12.4)	181 (22.0)	456 (15.0)	2365 (12.2)
None of the above[3]	484 (15.3)	124 (12.2)	608 (14.5)	4695 (18.1)

1. Sample size may vary due to incomplete surveys. Data presented in the 'All States' column are the averages of each state's average. Percentages may not add up to 100% as participants were able to select 'not sure' or 'not applicable' as response options.
2. Response option not available to NC WIC participants.
3. Respondents marked 'no' to all response options.
4. Response option not available to ITCA WIC participants.
5. Response option not available to NC, NM and OH WIC participants.

Use of WIC Card and WIC App

Although not related specifically to changes due to the pandemic, most states chose to ask optional questions on the use of the WIC Card (CO, CT, LA, ME, MN, NC, NH, NM, NV, WV) and all states opted to ask optional questions on the use of their state agency's WIC App (**Table 6**). Additional questions were asked of all respondents about preferences for changes to the WIC App and to rate their satisfaction with the WIC Card and WIC App (on a scale of 1= very unsatisfied to 4 =very satisfied).

Table 6. Use of WIC Card and WIC App in Colorado and All States[1]

	English (n=3239)	Spanish (n=1031)	State Total (n=4270)	All States (n=26642)
Satisfaction with WIC Card,[2,3] Mean (SD) [CARDSAT]	3.43 (1.02)	3.20 (1.22)	3.37 (1.1)	3.46 (0.09)
Very satisfied, n (%)	2175 (67.9)	662 (65.0)	2837 (67.2)	15931 (70.2)
Somewhat satisfied, n (%)	459 (14.3)	108 (10.6)	567 (13.4)	2986 (13.2)
Somewhat unsatisfied, n (%)	94 (2.9)	29 (2.8)	123 (2.9)	631 (2.8)
Very unsatisfied, n (%)	378 (11.8)	215 (21.1)	593 (14.0)	2770 (12.2)
Have not used, n (%)	99 (3.1)	4 (0.4)	103 (2.4)	388 (1.7)
Satisfaction with WIC App,[2] Mean (SD) [APPSAT]	3.38 (1.00)	3.23 (1.22)	3.34 (1.06)	3.35 (0.14)
Very satisfied, n (%)	1960 (61.2)	637 (62.6)	2597 (61.5)	15130 (57.4)
Somewhat satisfied, n (%)	578 (18.0)	43 (4.2)	621 (14.7)	3867 (14.7)
Somewhat unsatisfied, n (%)	150 (4.7)	60 (5.9)	210 (5.0)	1180 (4.5)
Very unsatisfied, n (%)	336 (10.5)	181 (17.8)	517 (12.2)	2853 (10.8)
Have not used, n (%)	181 (5.6)	97 (9.5)	278 (6.6)	3309 (12.6)
Desired changes in WIC App,[4] n (%) [APPCHANGE]				
Share re/certification documents[5,6]	2088 (69.5)	696 (76.2)	2784 (71.1)	10504 (74.8)
Add chat feature[6]	1881 (62.6)	545 (59.7)	2426 (62.0)	9556 (67.0)
Find stores that offer self-checkout[6]	1745 (58.1)	650 (71.2)	2395 (61.2)	9743 (68.3)
Prevent from crashing or make run faster[5,7,8]	1779 (59.2)	561 (61.4)	2340 (59.8)	8968 (58.7)
Access online nutrition education[5,7,9]	1746 (58.1)	593 (65.0)	2339 (59.7)	7619 (67.0)
Add feature to save pictures of receipts[10]	1656 (55.1)	516 (56.5)	2172 (55.5)	2172 (55.5)
Make log in easier[5,7-9]	1232 (41.0)	563 (61.7)	1795 (45.8)	7436 (49.4)
Any one of the above	2884 (96.0)	884 (96.8)	3768 (96.2)	19749 (98.0)
None of the above[11]	119 (4.0)	229 (3.2)	148 (3.8)	409 (2.0)
Reasons for not using WIC App,[12] n (%) [APPUSE]	(n=178)	(n=95)	(n=273)	(n=3266)
Do not need to use the App	58 (32.5)	23 (24.2)	81 (29.7)	486 (14.9)
Do not have phone while shopping	38 (21.3)	41 (43.2)	79 (28.9)	780 (23.9)
Did not know about the App	63 (35.4)	15 (15.8)	78 (28.6)	1445 (44.2)
Do not own smartphone	33 (18.5)	45 (47.4)	78 (28.6)	808 (24.7)
Do not know how to use App	50 (28.1)	23 (24.2)	73 (26.7)	833 (25.5)
Cellular data or WiFi not available at grocery store	41 (23.0)	21 (22.1)	62 (22.7)	898 (27.5)
Do not know how to download App	30 (16.9)	27 (28.4)	57 (20.9)	559 (17.1)
App takes up too much space on my phone	38 (21.3)	14 (14.7)	52 (19.0)	454 (13.9)
Cannot remember how to log in[7]	28 (15.7)	14 (14.7)	42 (15.4)	375 (11.5)
App keeps crashing or is too slow	12 (6.7)	14 (14.7)	26 (9.5)	221 (6.8)
None of the above[11]	2 (1.1)	1 (1.1)	3 (1.1)	81 (2.5)

1. Sample size may vary due to incomplete surveys. Data presented in the 'All States' column are the averages of each state's average.

2. Scored as follows: Very satisfied=4, Somewhat satisfied=3, Somewhat unsatisfied=2, Very unsatisfied=1.
3. Question not asked of ITCA and OH WIC participants.
4. Question not asked of NH and OH WIC participants. Percentages may not add up to 100% as participants were able to select 'not sure' as a response option.
5. Response option not available to CT WIC participants.
6. Response option not available to ITCA WIC participants.
7. Response option not available to MN WIC participants.
8. Response option not available to NM WIC participants.
9. Response option not available to NC WIC participants.
10. This question was only asked of Colorado WIC participants
11. Respondents marked 'no' to all response options.
12. Only asked of respondents that said they had not used the App when asked about satisfaction with the App. Percentages may not add up to 100% as participants were able to select 'not sure' as a response option.