**Process for Developing Text Message Campaign**

Educational Messaging System

An Educational Messaging System (EMS) is a texting platform that supports drip marketing campaigns. In other words, an EMS sends programmed messages to selected groups at selected dates and times. For this project, the local WIC agency team developed the messages, selected the groups and scheduled the message release times.

The intention of the texting campaign was to automatically send age and language appropriate (English or Spanish) messages to the local agency WIC participants. The age groups selected for this intervention were infants (12 months or younger), one-year-olds, and children two to five. The team selected the groups based on the developmental milestones experienced during these time periods as well as the similarity WIC food packages for these groups.

The WIC program chose to offer messages in both English and Spanish, due to the large number of Spanish-speaking WIC clients. Offering the intervention in Spanish also allowed the program to assess the effectiveness of the messaging to Spanish-speaking clients and tailor messaging to this population.

The EMS was structured to release four pre-scheduled messages monthly. Messages were programmed to go out at 6pm. After the mid-intervention survey, based on client feedback, time was set to 10am.

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| Monthly Message Release Schedule |
| Week 1 | General Message |
| Week 2 | C1 (One Year Olds) |
| Week 3 | Infant |
| Week 4 | C2-4 (Child, two to five years old) |
| Week 5 | Possible ad hoc message |

Selecting Clients for the Intervention

As part of an intake visit, WIC staff asked clients if their primary number is a cell phone and, if so, were they willing to receive text messages at that number. The majority of clients agreed to accept text messages and requested to be set up in the automated text appointment reminder system. The team opted-in all clients that consented to receive texts from WIC into the intervention. This was permissible as long as in each message, clients were given instructions on how to opt themselves out of the intervention. For that reason, “Text Stop to stop receiving messages” was added to each message.

Creating a submission for EMS of Active WIC clients

* The local WIC agency asked for a report in an Excel format from the state department of health of families who opted-in to receive text messages. The report included the following client variables:
	+ Family ID #
	+ Authorized Representative’s Name
	+ Client ID #
	+ Client Name
	+ WIC Category
	+ Phone Number
	+ Primary Language
	+ Date of Birth
* Certification End Date
* The master dataset was then divided into subsections using the following list of predetermined criteria:
	1. WIC Categories:
		1. Infant (IFF, IPN, IPN+, IEN)
		2. 1 – 2-year-olds (C1)
		3. 2 – 5-year-olds (C2, C3, C4)
		4. Pregnant Women (PG1, PG2)
	2. Language Categories:
		1. Spanish
		2. All other languages
* In order to subset the master list, the data were filtered using the appropriate age category identifiers and language to create a single subset list.  For example, for 1-2-year-olds with Primary Language of ‘Spanish,’ clients with Age Category of ‘C1’ and Primary Language of ‘Spanish’ were filtered and copied into a new spreadsheet. This process was repeated for each combination of Age/Language categories (eight combinations in total).
* Each worksheet was clearly labeled with the appropriate age/language identifier in order to be imported into the age- and language-appropriate EMS message campaign.

Preparing Client Data to Upload to Education Messaging Systems (EMS)

* Client identifiable information not needed to associate them with the age- and language-appropriate message campaign, including WIC ID numbers and last names, were removed prior to sharing the datasets with the EMS. Six variables (labeled ‘Key Words’ by the EMS) were retained: Authorized Representative’s first name, child’s first name, child’s WIC category, child’s date of birth, certification end date and Authorized Representative’s phone number.
* Datasets (Excel spreadsheet format) were emailed securely to the EMS.
* The project’s dedicated EMS representative uploaded the prepared datasets into the EMS platform, ensuring that the clearly labeled age- and language-appropriate datasets were matched to the corresponding message campaigns.

Rules for editing client data

The WIC team understood that families with multiple children in different age categories could receive up to four messages per month. It was important to ensure that families would not receive the same message multiple times. The team together with EMS partners programmed messages to ensure that participants did not receive duplicate messages.

* If a phone number had more than one child listed in the same WIC category:
	+ The oldest child in infant and one-year-old categories was kept.
	+ In the 2-5-year-old category the youngest was kept.
* If 2 households had the same phone number,
	+ The project coordinator confirmed the phone number in the client’s MIS file and updated the phone number when possible.
	+ Otherwise, the oldest child in the infant and one-year-old categories was kept.
	+ In the 2-5-year-old category the youngest was kept.

Text “Intervention” to ##### to Opt-in

The WIC team worked with the EMS to set up an opt-in system for WIC clients interested in participating in the intervention that were not enrolled in the intervention at the time of the initial launch. WIC clients would be asked by WIC staff to opt-in to the intervention at their scheduled WIC appointments. Also, promotional materials, including posters, fliers, and oven mitts with the intervention logo indicated to clients that they could text the name of the intervention to a five-digit number to opt themselves in.

The team worked with the EMS to create a welcome message for clients that opted into the program as well as an algorithm that would help the client get into the correct age group for their child. (See client self-opt-in under the messaging section below).

Required Opt-out Option

By law, individuals must be able to opt themselves out of a text marketing campaign. Therefore, included in each message was the phrase, “Text Stop to stop receiving messages”. If a client texted “stop”, the EMS system was set up to remove them from the list of recipients, and they would no longer receive messages. The phone numbers that chose to opt out were included in an opt-out report provided by EMS.

*Message Development*

A group of WIC Registered Dietitians and Internationally Board-Certified Lactation Consultants held a retreat to brainstorm possible messaging. Their instructions were to create messages for the caregivers of infants, one-year-olds and 2–5-year-olds that participate in the WIC program. The messages could be about feeding, infant and child growth and development, WIC foods, and WIC program information, whose knowledge of, would add value to the WIC client experience. After the retreat, the group sent more than 50 possible messages to be used in the intervention.

The messages were first edited and organized by appropriate age category by the local WIC agency staff. The messages were then screened by the local health department communications team for appropriate reading level, cultural competency and clarity of message. The messages were translated to Spanish by local WIC agency staff and then sent to the health department’s certified Spanish-language interpreter for edits and final review. Lastly, the messages were sent to the USDA Food and Nutrition Service (FNS) for review. The FNS sent questions and edits and requested that links given in messages be to government sites. Links were updated.

Calendared Messages

The intervention was scheduled for 12 months. The project team reviewed the approved list of messages and organized the messages by month that they would be sent, taking into account the season of the year, cultural events and recognized health observances over the course of the intervention.

Bitly Links

Bitly is a URL shortening, managing and analyzing service. The project team included relevant links to online resources in several messages. Due to the fact that links can be lengthy and messages have a limited character count of 255 characters per text message, the use of Bitly in this intervention is essential. Not only do the links provide additional resources to participants they also serve as a measure of client engagement in the texting intervention by tracking the number of texting participants that click on a given link.

Welcome Messages and Grouping

Initial Mass Opt-In Welcome Message

* English

<Texting campaign name> is starting soon! You'll receive monthly messages from your WIC office on topics like nutrition, parenting, links to recipes, family-friendly events and how to get the most from WIC. Text STOP to receive no more messages.

* Spanish

*¡<Nombre de la campaña de mensajes de texto> está comenzando pronto! Recibirá mensajes mensuales de su oficina de WIC sobre temas como nutrición, crianza de los hijos, enlaces a recetas, eventos familiares y cómo aprovechar al máximo de WIC.* *Para no recibir mensajes text STOP*.

Client Self-Opt-in Algorithm

Welcome to <name of texting campaign>! *¡Bienvenidos a <el nombre de la campaña de mensajes de texto>!* For English messages text 1 *Para español* text 2

* English

You’ll soon start to receive monthly messages from your WIC office on topics like nutrition, parenting, links to recipes, family-friendly events and how to get the most from WIC. Text STOP2end

Some messages are age specific, would you like to receive a message for an infant age 0-11 months? Text 1 for yes or 2 for no.

Would you like to receive a message for a child age 12months to 23 months? Text 1 for yes or 2 for no.

Would you like to receive a message for a child age 2 years to 5 years? Text 1 for yes or 2 for no.

Thank you for your participation!

* Spanish

*Recibirá mensajes mensuales de su oficina de WIC sobre temas como nutrición, crianza de los hijos, enlaces a recetas, eventos familiares y cómo aprovechar al máximo de WIC.* Text STOP2end

*Algunos mensajes son específicos de la edad. ¿Le gustaría recibir un mensaje para un bebé de 0-11 meses?*

*¿Le gustaría recibir un mensaje para un niño/a de 12 meses a 23 meses?*

*¿Le gustaría recibir un mensaje para un niño/a de 2 años a 5 años?*

*¡Gracias por su participación!*

Ad hoc Messages

The WIC team piloted sending ad hoc messages to texting participants. Ad hoc messages were assessed based on potential benefit relative to potential costs. The selected ad hoc messages were about food resources for the holidays (Thanksgiving Turkey Giveaway), rental assistance for those affected by COVID-19, and information about the newly available WIC self-check-out at various grocery stores.

In-message Feedback

Midway through the project, the WIC team added a request for feedback into the messages. The request said to “Rate this message with a thumbs up or thumbs down.”

*Use of Educational Messaging System Reports in Texting Campaign Management*

Bounce Back Report

A ‘bounce back’ refers to a message that was undeliverable to the phone number on file after several attempts. The project coordinator reviewed the Bounce Back report the day after a message is released. If a phone number appears on the Bounce Back report, the coordinator verified the client information in the state WIC MIS database and updated the phone number in EMS, if there was a new number on file.

From Bounce Back pulled for end of day of launch date, phone numbers were verified in each file in the MIS database:

* If welcome message was sent to the secondary phone number, phone number in our Master Database was updated and new welcome message was sent to current primary phone number.
* If the phone number in the client’s file had changed, phone number in our Master Database was updated and new welcome message was sent to current primary phone number.
* If no new number was on file, documented in clients’ file in the MIS for phone number to be verified.
* Welcome message sent out to updated phone numbers.

Other reports the project coordinator reviewed at the end of each month included: incoming messages, outgoing messages, reminders (this includes which message was sent on which day to how many people), opt-out report, opt-in report and how many people clicked on any Bitly links during the month.

From Opt-Out Report pulled for end of day of launch date, phone numbers were verified in each file in HANDS:

* If welcome message was sent to the secondary phone number, phone number in our Master Database was updated and new welcome message was sent to current primary phone number.
* If the phone number in the client’s file had changed, phone number in our Master Database was updated and new welcome message was sent to current primary phone number.
* Welcome messages sent out to updated phone numbers.

*Implementation Training Materials*

The WIC texting campaign staff training began with the introduction of the innovation at an all-staff meeting. A description of the project and its purpose was given. Discussion of what type of text messages could be sent and the brainstorming for the title of the innovation as made, this is how the drip marketing campaign was named.

At subsequent local WIC agency staff meetings, texting campaign training and discussions continued. The discussions included brainstorming of WIC topics to be used in the text messages, what sort of incentives could be used to promote the campaign, logo improvements and progression of the intervention. PowerPoint presentations were made to include messages to be used, images of posters and how to opt-in to the intervention.

*Innovative Tool Adaptation and Pre-Test*

Adaptation of the innovative tool began with the development of English and Spanish-language messaging focused on increasing the perceived value of the WIC program for parents and guardians of children in the program. Some of the messages were shared with parents and guardians of all children, while nutrition messages were developed specifically for defined age categories. The categories were birth to age one, ages one to two and two through four. Local and state agency WIC staff created a variety of messages to best target the audience and retain clients in both the texting campaign and WIC.  The last step in the message approval process was receiving the approval from USDA/FNS.

Local agency WIC staff worked with EMS to develop the text messaging platform. Local WIC staff also worked with the state office to compile a list of all WIC clients with infants or children up to age five. Once messages were developed and uploaded onto the EMS platform, all local agency WIC clients within this category were opted into the texting campaign, with the option to opt out at any time.

Several messages were tested in a pilot group comprising local agency WIC staff. Staff were asked to opt into the texting intervention and received two to three messages. Staff provided feedback on the potential of these messages to improve participation, redemption, and retention.

*Text Message Testing*

The testing of the delivery of text messages using the Educational Messaging Services (EMS) platform took place in several steps.

In order for the project coordinator to become familiar with uploading client information into EMS using an Excel spread sheet, an Excel spread sheet was created with the names and cell phone numbers of five local agency WIC staff. This data was then uploaded into EMS to create a pilot test group. This group was utilized not only to help understand how to upload clients but also to test several messages in both English and Spanish, test Bitly links, and test the opt-in and opt-out features in EMS.

Once uploaded, each member of this pilot group received the pre-programmed welcome message as expected. The welcome message used in this testing period was the following:

“Welcome to <name of texting intervention>. Thank you for your participation in helping us develop our project. To opt out text STOP”

Several other messages were programed to be delivered over the course of the next few days and weeks. This enabled the coordinator to become familiar with the message programing features of the platform and the selection of specific dates and times for message release The test messages included messages selected to be utilized in this drip text messaging campaign. These messages also included Bitly links in order to test their functionality and the analytics function offered through the Bitly links Application.

The following English messages were tested during the testing and development of WICBuzz:

“Did you know WIC has over 13,500 eligible WIC foods? Which are your favorites? Use the EzWIC app to check your benefits and scan foods to see if they are WIC approved.”

“Got milk? WIC offers a variety of milk alternatives including goat's milk, soy milk, dry milk and lactose-free milk. Ask your WIC clinic if you are interested in switching to a different milk type.”

“Don't have a crusty day! Good food fuels your body and mind! Use your WIC benefits to buy whole wheat bread to make toast for breakfast or a healthy sandwich for lunch.”

“ABC's are important! Apples to zucchini, learning about different foods is an important part of childhood. Try to eat a fruit or veggie for each letter of the alphabet. It's a fun way for your kids to practice their ABC's and to build healthy habits.”

The following Spanish messages were tested during the testing and development of WICBuzz to test length and the addition of accents:

“¿A tu pequeño no le gusta beber agua? Pruebe agua divertida, agregue frutas como fresas, arándanos o rebanadas de limón o jugo a agua mineral o agua con gas.”

“¿Sabías que el brócoli construye huesos? Las verduras de hoja verde como el brócoli, las espinacas y la col rizada contienen calcio.”

“Los bebés lloran por muchas razones, no solo porque tienen hambre. Antes de darles de comer, juegue al detective para ver si hay alguna otra razón por la que su bebé podría estar llorando.”

“WIC está aquí para su hijo desde la infancia hasta los 5 años. Si tiene preguntas, podemos ayudarlo a ser el mejor padre que pueda ser. ¡Háganos saber cómo podemos ayudar!”

These messages were received correctly, all within one text message (not spilling into two or more), and accents used in the Spanish language were appropriate in their placement and context. There was consensus among the test group, and the project team moved forward with program implementation.

To test opt-outs and opt-ins, several of the local agency WIC Staff were directed to opt themselves out of the text messaging campaign by responding STOP. These members were successfully opted-out and received the following message:

“Textline Chat: You have successfully unsubscribed. You will not receive any more messages. For more info visit <https://www.preventionpaystext.com/policies/>”

This message was programmed by EMS and sent in response to receipt of the text “stop”.

After successfully opting themselves out of the campaign, the local WIC staff test group members were also asked to opt themselves back in to test whether clients who had opted out would be able to once again join the campaign. These members were successful in opting back into the campaign.

The tool was further refined using participant feedback gathered through a pre-implementation survey and a mid-implementation survey. The mid-implementation survey asked participants for feedback about the overall texting campaign, the messages received so far, and potential content, timing, and frequency of future messages. The survey was administered in both English and Spanish.