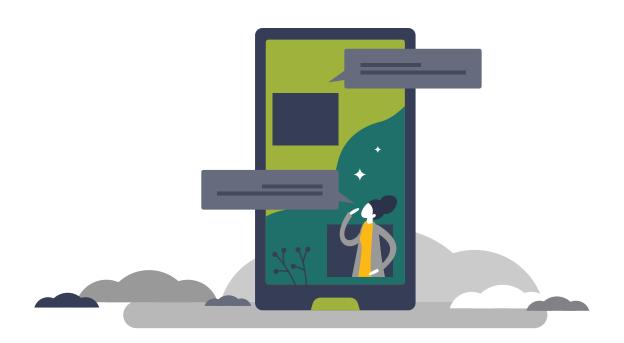# COLORADO BLUEPRINT
TO END HUNGER

COUNTY CONSIDERATIONS WHEN DESIGNING AND IMPLEMENTING AUTOMATED MESSAGING PROGRAMS FOR HUMAN SERVICES PROGRAMS

NOVEMBER 2020

Acknowledgments

The Colorado Blueprint to End Hunger is grateful for the ongoing support of an array of partners and would like to acknowledge its gratitude for the many county human services departments, state administrators, and anti-hunger advocates who generously shared their insights, innovations, and feedback to support the development of these resources to improve the use of technology in Colorado anti-hunger programs.

- Adams County Human Services
- Arapahoe County Human Services
- Benefits Data Trust
- Boulder County Human Services
- Centura Health
- Colorado Department of Health Care, Policy, & Finance
- Colorado Department of Human Services
- Colorado Department of Public Health and Environment
- El Paso County Human Services
- Hunger Free Colorado
- Mesa County Human Services
- The Office of Information Technology

About the Colorado Blueprint to End Hunger

The Colorado Blueprint to End Hunger is a multi-year plan to end hunger for all Coloradans. It was developed, with funding from the Colorado Health Foundation, by individuals and organizations from across the state who are working on or experiencing hunger in their own homes and communities. Key elements of the plan include efforts to maximize enrollment of income-eligible Coloradans in both the Supplemental Nutrition Assistance Program (SNAP) and the Woman, Infants and Children Food and Nutrition Service (WIC), which focuses on mothers, infants, and children under five years of age. The Blueprint also calls for boosting participation in Federal Child Nutrition programs and expanding the number of Coloradans who can access the food they need through community-based organizations.

Principal Author: Joël McClurg, The Colorado Blueprint to End Hunger.

For more information visit http://endhungerco.org or contact jmcclurg@endhungerco.org

Purpose: To provide options and considerations for counties interested in implementing an automated messaging system that helps address client inquiries as well as reducing technician workloads.

Introduction

Automated messaging, such as by email or text, is a low-cost and effective way of communicating with clients by sending reminders and other information to a client electronically. Over 95 percent of Americans own a cell phone with texting capabilities, and 4 out of 5 Americans own an internet and e-mail enabled smartphone, which presents an enormous opportunity to use automated messaging to help fulfill client needs.[1] Automated messaging can provide real-time information to a client regarding their case status and next steps, and can reduce churn and customer service interactions for county technicians.

Some Colorado human services departments have identified a number of opportunities to leverage technology to improve how services are provided to clients. Clients often reach out to local offices with similar questions, such as the time and date of their next appointment and the status of paperwork they had previously submitted. The complex requirements of benefits programs, including appointments and paperwork deadlines, sometimes result in clients losing access to benefits. Automated messaging can make it easier for individuals and families to interact with their human service department, keep track of program requirements, and ultimately obtain and retain the services to support themselves and their families.

How it Works

Agencies may use a contracted service or capabilities within their own systems to send clients automated messages at key points during their application or renewal process. Web-based interfaces allow you to send messages to many people at one time and to track those messages. SMS vendors generally provide the interface for a fee, and they make sure your text messages get to the recipient.

How Well it Works

- Arapahoe County has been texting clients for over three years to remind them about upcoming SNAP interviews for intake and RRRs[2]. Prior to implementing their texting program, their NOMI[3] rate was 37 percent. Since implementing their texting program, Arapahoe's NOMI rate has fallen to less than 10 percent.

- Adams County has also reported a decrease in missed interviews since initiating their automated bulk messaging program with interview reminders in late 2018/early 2019.

- A number of other counties (Denver, El Paso) have also begun automated messaging pilots, but data collection regarding their efficacy is not complete and has been complicated by the COVID-19 pandemic and required social distancing measures. Data collection and evaluation are ongoing, however, and these pilots are described in greater detail in the "County Examples" section of this document.

1   https://www.pewresearch.org/internet/fact-sheet/mobile/
2   'RRR' is what re-certifications are called in Colorado
3   'Notice of Missed Interview': A notice that is automatically generated in the Colorado Benefits Management System (CBMS) when a household fails to attend their SNAP interview

Designing Your Automated Message Program

Begin by asking yourself "what client barrier are we attempting to address?" and design your program accordingly. Maybe you want to use automated messaging to reduce NOMI rates, or to provide verification receipts to clients, or to reduce RRR churn by reminding clients when their RRRs are due. The technology and basic design of each goal will be relatively similar, but your approach, timing, and messaging will differ. It is best to begin small with a very focused pilot on one barrier and solution to learn how the technology and process will flow into your normal office operations. Once you have successfully implemented automated messaging to address this barrier, you can begin to develop a new intervention to address a new problem. Prioritize the problems in order of need, and focus on successfully addressing the most emergent problem first before you begin to move down the list.

Engage your target audience to help you determine how you should prioritize your automated messaging program. It is important for you to do some audience research of your own to answer questions specific to your program, so if possible consider holding focus groups, interviewing key informants, and/or distributing and analyzing a brief survey to your clients to learn what their needs are. For example, Denver human services interviewed and shadowed staff and clients to gain a deeper understanding of client needs and pain points in accessing benefits, as well as to understand clients' access to and comfort with technology. To capture a broad range of perspectives, they focused on finding interview participants through different entry points, including those coming into physical buildings, those reaching out by phone, and even through outreach workers at homeless shelters.

Determine what automated messaging program best suits the needs identified by your office and its clients. It will also be helpful to consider what information sources you will be using to support your texting program and how frequently they can be pulled. For example, will you be relying on state reports that are available monthly, or reports from your work management system that can be provided daily?

Denver human services has suggested thinking about messaging programs as falling into three different categories:

1. One-way automated messaging (e.g. an e-mail or text as an appointment reminder for an upcoming SNAP interview that functions similar to a notice with no opportunity for a reply)

2. Two-way automated systems (e.g. an e-mail or text encouraging a client to complete their RRR packet, and encouraging the client to respond with any questions that a technician can answer through the message platform). Two-way texting necessitates having a workforce that can multi-task on other activities while periodically responding to inquiries or requests as they arise.

3. Custom messages to individual clients with personalized information (e.g. a message is sent to a client notifying them that their application is still missing a form of income verification that must be provided to complete the application)

Consider what tools and strategies you will need to successfully implement your automated messaging program. Automated messaging programs generally require the following components:

1. A web-based platform capable of sending automated messages, with a vendor as necessary

2. Staff to both design and distribute messages, *as well as to be able to respond to them* (e.g. if the texts encourage clients to call your office's call center, the call center must be appropriately staffed to handle the surge in call volume)

3. A budget to be able to support the automated messaging program (the 'County Examples' portion of the document includes budget examples)

4. A marketing plan to inform clients of the program and help them 'opt-in' if your county decides to follow that option (see the 'Getting clients to participate' section to learn more about opting-in versus opting-out)

5. An evaluation plan with pre and post metrics to help you weigh whether the program has been successful in addressing your prioritized obstacle

There are a number of other considerations from other automated messaging programs as well. Other counties and states across the country have engaged in similar programs, and have identified best practices that should be mirrored based on their experiences:

- To avoid suspicion or being viewed as spam, the first message an agency sends to a client should include the agency's name. It should also explain how the client can opt out of receiving any further messages.

- Make text messages concise. Messages exceeding 140 characters become more than one text and are less successful.

- Use plain text instead of rich text or HTML text so clients without smartphones, fast internet, or those with limited data plans can receive the messages as intended.

- Where possible, include a telephone number or website for next steps when action is needed.

- Do not use text messaging to send information that is not time-sensitive or does not require action.

- Be prepared to respond to any reply messages. If no staff are assigned to monitor and respond to messages, replies from clients should generate a standard, automatic response referring the client to a customer service number.

- Evaluate privacy and security considerations if collecting clients' personal information via two-way messaging.

Crafting Messages

There are a number of ways to maximize the value that your clients will get from your automated messages.[4]

1. Offer immediate value. Give the end user the information they want as soon as possible. Before you text, ask yourself, "Why does this matter? Who cares?"

2. Avoid abbreviations or "textese." Use proper grammar and punctuation when possible.

3. Use a link shortener to make room for other important information. Two options are bit.ly or tinyurl. Instructions are found at each site.

4. Use engaging writing devices to draw the user in. Ask rhetorical questions, invite responses (when possible), and explain how to do something. For example: "Did you know you have to recertify for SNAP every six months or you will lose your $140 in monthly benefits? Recertify here [link]".

When implementing client-facing technology, agencies can benefit from behavioral economics research and design the product to help "nudge" clients to act on a request or to take action. Health and human service agencies can apply behavioral economics by:

1. Encouraging action by reminding clients of what they might lose if they do not act rather than just providing a due date. For example, a SNAP renewal form could include the actual benefit amount the client will lose if they fail to renew.

2. Sending notices requiring action with sufficient time for clients to act. Send reminders/notices about completing a renewal before benefits are about to end. Clients may be overwhelmed and mentally unable to prioritize submitting paperwork at its deadline.

Budgeting for Automated Messaging

Different factors affect the total cost of your automated messaging program, but you may be surprised at how affordable they are. Generally, since these programs are built on economies of scale and are web-based so they use your pre-existing office equipment, the cost to implement these programs is fairly manageable.

Costs to consider are: the vendor and platform you chose; FTE necessary to maintain and manage your automated messaging program; the cost of equipment to use automated messaging; any marketing materials you want to create to promote the program; the cost per message that you wish to send; whether you have chosen a one-way or two-way program to fit your needs.

Adams County, for instance, reports that they currently spent about $670 per month for their automated texting platform, which includes 14 separate lines and the ability to send both bulk and custom messages. Denver County pays $0.0075 per text with their vendor, Twilio (or ¾ of a cent per text).

[4] http://www.nwcphp.org/docs/sms-toolkit/messages/index.htm

There are a few different options when it comes to choosing the appropriate platform and interface for your automated messaging needs. Generally, there are three different routes your office can navigate when adopting the technology necessary to support automated messaging:

1. **Use a fully hosted vendor solution**. Typically, you will be provided with a web-based interface that you and your program administrators can use to input and manage subscriber lists, and schedule and send text messages. There is less customization but it is fast and easy to stand up this option. When considering a vendor, there are a number of helpful questions (http://www.nwcphp.org/docs/sms-toolkit/technology/ChoosingVendorGuide.pdf) to ask from a human services perspective.

2. **Commercial Off-the-Shelf (COTS) solution.** Your agency purchases an application, and subsequently develops or modifies the user interface and hosts the database. Your office would house the physical infrastructure and servers needed to support the COTS application. This option requires professional services to customize the database, and internal resources to maintain the database, but there is a greater degree of flexibility in making the system do what you want.

3. **Develop in-house SMS application.** This solution requires internal resources to develop and maintain the recipient database. You own the user interface and database, and contract with an aggregator to transport messages to the carriers. This option requires sophisticated IT development and is unlikely to be worth the investment. This is very high cost, high reward since it takes so many resources to implement but you have complete control over the outcome.

Evaluation Planning

Evaluation is an important component of your program, as it will help you weigh whether you were successful in addressing the obstacle you identified. Be sure to identify evaluation metrics prior to implementing your program, as pre and post data will help you measure the impact of the intervention. Ask yourself "how will we know if we have improved the experience for clients and for our staff," and determine how you will measure the change. It can be as simple as client surveys, but it can be helpful to balance those qualitative experience data against harder, more quantitative data such as Arapahoe's NOMI rates. COGNOS[5] may have reports to support your efforts, and it could be worth reaching out to the State to see what metrics they recommend tracking for your program.

Getting Clients to Participate

There are a number of ways you can get clients to participate in your automated messaging program. The first consideration is whether you want an "opt-in" or an "opt-out" model.

Opting-in means you give clients the opportunity first and foremost to select whether they want to receive automated messages. This gives clients more control and autonomy in the process, but it means that your automated messaging will reach far fewer clients, and you must be much more proactive in marketing these communications. Denver, for example, has created an opt-in model due to the guidance from their legal team, where they ask client permission prior to sending messages.

---

[5] An interface that generates useful reports for Colorado human services offices based on data in its benefit management system

Denver emailed or texted the consent form to over 6,900 clients. Over 2,700, or about 40 percent of those who have received the link, signed up for the notifications program. Opting-in also typically requires the client to 're-up' after a certain time.

Opting-out means that you automatically enroll every eligible client into automated messaging, and they must take steps to unenroll from your program if they desire. Some clients may be upset that they did not give their consent to receive messages, but the reach of your program will be substantially higher. Adams County and Arapahoe County run "opt-out" models, and Adams County noted that only 25 numbers have blacklisted their automatic messaging this past year, and Arapahoe has only had one confirmed opt-out in three years of generating automatic messages to their ~100,000 applications per year. Regardless, it is a good practice to always refrain from messaging any Personal Health Information (PHI) due to privacy concerns.

Be sure to market your automated messaging on any county created documents pertinent to these programs. The awareness will help build trust in clients so that they are more likely to act when they receive a message, and it will also help increase your opt-in rates should your county decide to pursue that model.

Pilot and Expand Your Program

As previously mentioned, it is a good idea to smart small with a target sample group and a very specific and manageable goal in mind. This allows your office to adjust accordingly and be responsive to ongoing needs or speed bumps as they arise. It will also allow your office to develop a very clear sense of what success means, and how you measure it. Denver piloted a text messaging program with one of its workforce development programs, selected for the program's small participant size and high frequency of required appointments. Denver then obtained permission from the workforce development program participants to send text messages and gathered feedback from participants about the text messages to improve the notifications.

Once you feel comfortable about the design and functionality of your program, you can scale it out to address other barriers, programs, and populations. The hardest part is identifying a vendor and getting your automated messaging program off the ground in its initial pilot. Once its efficacy is proven, and your office has adapted operations to accommodate the program, it will become much easier to scale the program out to other areas.

County Examples

Adams County currently utilizes automated messaging for their intake and ongoing public assistance teams, as well as their child support department and their Colorado Child Care Assistance Program (CCCAP) team. Adams County uses a hybrid of both mass one-way texting and customized texting to support clients. The messages include information such as appointment reminders, RRR reminders, correspondence with clients, and general updates such as building closures. Adams currently sends out about 3,700 automated messages per month.

Arapahoe County sends automated, one-way texts as appointment reminders to clients for all programs that require an interview, both at intake and RRR. Arapahoe manages an 'opt-out' model and has only had one client opt-out in over three years of automated messaging. Arapahoe reports that their NOMI rate previously was 37 percent, but has fallen to between 5 and 10 percent since implementing their automated messaging program. Arapahoe uses a third-party vendor to facilitate their messaging program that is currently integrated with an Access database, but they are migrating to a new and more stable database in the near future (Appointment Plus).

Denver County has developed a texting program to make it easier for families to keep track of appointments, deadlines, and paperwork to maintain their benefits in Colorado Works. Denver determined that lobby visits and call center inquiries were really simple, 'transactional' requests versus more complex conversations. The target focus was to make the simple requests easier to provide to clients and to free eligibility worker time from these requests. As of June 2020, Denver Human Services has emailed or texted their automated messaging consent form to over 6,900 clients, with over 2,700 (or about 40 percent) of those who received the link signing up for the messages. Automated messages consist of information such as "You have an appointment tomorrow morning at 9am." Denver is monitoring outcomes from the pilot, but preliminary anecdotes from clients have been very positive. Denver human services noted that: "Texting was both cheap to build and also reaches a broad swath of clients." Denver will scale up its project to other programs in the fall of 2020.

El Paso County is partnering with Hunger Free Colorado (HFC) to send out reminder text messages to SNAP clients who have not returned their RRRs. HFC will coordinate with the State to receive a list of clients who have an RRR due the following month, who have not returned that RRR by a specific point in time in the current month. The client will receive a text message stating "On behalf of El Paso County, HFC is reaching out to let you know your RRR is due on [DATE]. Please go to https://coloradopeak.secure.force.com/ to complete your paperwork as soon as possible to prevent a delay in your benefits." Similarly, HFC will send out a text at the beginning of the month when the RRR is due that says "Your paperwork is due this month for your benefits ending in [MONTH]. Please go to https://coloradopeak.secure.force.com/ to complete your paperwork as soon as possible to prevent a delay in your benefits." El Paso will weigh the efficacy of these messages, and once their IT department feels comfortable adopting the program they will bring the automated messaging program in-house.