mPulse
mobile

CONVERSATIONAL AI CASE STUDIES

Activating Healthy Behavior Change in Medicaid & Safety Net Populations

Table of Contents

Conversational AI Case Studies: Activating Medicaid & Safety Net Populations

Patient activation describes an individual's skill, confidence and willingness to manage their own health. Higher levels of patient activation are associated with improved health outcomes and lower healthcare costs.[1] Activated individuals understand their health better, they take the effort to seek appropriate care and support services, and make sensible lifestyle decisions.

Today's healthcare costs and health outcomes of Medicaid populations reflect low levels of activation: high prevalence of chronic conditions and poor utilization of health services. Healthcare organizations serving the Medicaid population have adopted consumer engagement strategies to try and address these areas, but changing behavior is a complex and multi-faceted challenge. Despite considerable investment, traditional health engagement approaches have struggled to activate members for a range of reasons:

- Traditional outreach channels, such as mailers and robo-calls, have significant reach and engagement limitations

- One-size-fits-all outreach doesn't address the unique needs of each individual

- Behavior change is tied to complex psychographic factors, which must be understood and addressed

- Trained staff can call individual members to engage them on key topics, but cost and phone reach rates prevent scalability

- A large number of critical health topics need to be addressed

Significant change to the status quo is needed to address these areas. Medicaid plans must understand the specific individual challenges of their members, and then tailor support and services to help them take action on their health. To achieve this efficiently, effective communication channels, tailored outreach and efficient scalability is necessary.

In this paper, we define Conversational AI as the solution that addresses these challenges and demonstrate multiple success stories of plans using it for improved outcomes.

Conversational AI for Medicaid

Conversational AI provides a new approach to engage members in the pursuit of driving healthy behavior change. Conversational AI is the capability to have automated, dynamically tailored conversations with consumers directly through their mobile phone. The conversations uncover crucial insights about a member's current activation level, such as health beliefs and confidence levels

Mobile Phone Adoption by Low-Income Populations

Mobile phone ownership continues to rise among the Medicaid population and is at equivalent levels to the overall US adult population. Smartphone ownership rates are slightly lower than overall rates at 67% compared to 77% for the adult US population overall.[2] A recent survey demonstrated lower income segments view their phones as an important tool for managing their health, and their use of technology for health purposes is generally similar to that of individuals with employer and exchange coverage.[3] However, care must be taken to meet the diversity and complexity of member populations. Many Medicaid organizations leverage text messaging as it is widely adopted, content can easily be translated into different languages and nearly all mobile phone plans include unlimited texting so cost is not a barrier to use.

A foundational step for any text messaging program is to establish a robust database of member mobile phone numbers. Tools exist to validate mobile numbers within a broader list of numbers. Plans that invest in this area, report having more effective and efficient outreach, which enables them to drive member health engagement in a much more strategic way.

for tackling health-related tasks. These patient-generated psychographic insights, together with socioeconomic and health status data, allow organizations to deliver individualized mobile dialogues to the right person at the right time to drive healthy behavior change. Conversations are delivered through text messaging, which is widely adopted by all demographics and follows the trend of the mobile phone being the primary technology used by lower income segments (see inset: Mobile Phone Adoption by Low Income Populations).

Some organizations serving Medicaid populations cite TCPA regulation and HIPAA compliance as barriers to the use of text messaging to engage their members. In reality, large numbers of Medicaid organizations are demonstrating that these programs can be highly impactful and meet all compliance and regulatory requirements. Best practices for health-related mobile messaging can be found in mPulse Mobile's Essential Guidebook for Healthcare Mobile Messaging. Request a copy of this document at info@mpulsemobile.com.

Case Studies of Successful Behavior Change with mPulse Mobile Conversational AI Programs

mPulse Mobile is the leading provider of Conversational AI solutions for healthcare. Through partnerships with over 70 healthcare organizations and with over 150 million mobile conversations delivered annually, mPulse drives improved health outcomes and business efficiencies by engaging individuals with tailored and meaningful dialogue.

This compendium of program outcomes includes case studies where mPulse's Conversational AI solutions have been used by leading Medicaid organizations to orchestrate health engagement programs across a broad range of priority topics to drive healthy behavior change.

Onboarding & Navigation

Challenge

The Managed Care Organization (MCO) provides health coverage to 1.2 million members and is one of the fastest growing health plans in the nation. The plan's recently enrolled members demonstrated low levels of understanding and awareness of health services.

Solution

The MCO partnered with mPulse to deliver a New Member Onboarding & Navigation Solution that used Conversational AI to understand new members' health activation levels and then tailor conversations to address their health needs. 17,000 newly enrolled members participated in the study and their knowledge of plan services was compared before and after engaging in the program. The program focused on assessing members' understanding of health services and their ability to get needed care. The program allowed the plan to ask questions and gather key insights at scale. These insights were then used to dynamically tailor conversations to improve outcomes. For example, members with low activation levels received dialogues focused on building knowledge and awareness, while members with higher activation received dialogues to increase motivation and action. The study included speakers of both English and Spanish.

Results

Members who received the New Member Onboarding & Navigation Solution had significantly improved knowledge of health services. Prior to the program, 59% of members were unsure how to get the care that they needed. This figure fell to just 11% of members after completing the program.

A focus area was improving health services understanding to reduce overutilization of the emergency department (ED). The solution used automated conversations to understand members' likelihood of using the ED. Those with the highest likelihood received tailored conversations to activate them to utilize alternative services, such as the nurse helpline and urgent care, as well as drive them to select a family physician. Following the conversational outreach, member likelihood to use the ED for a minor condition reduced from 11% to 4%.

86% of members reported the program increased overall knowledge of health services. Additionally, 91% reported they found the messages either useful or very useful, which in addition to the low program opt out rate, demonstrates a positive impact on member experience.

MEMBERS UNSURE HOW TO GET THE CARE THEY NEED
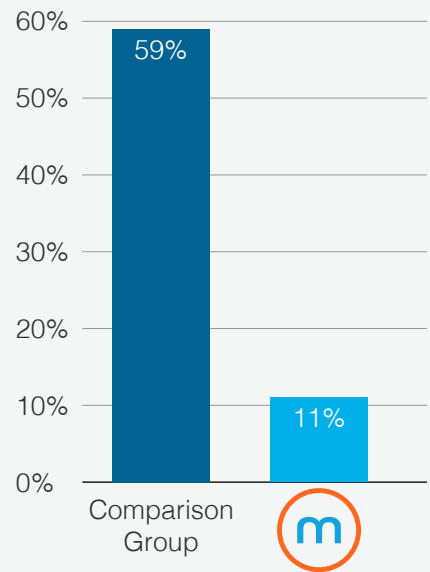
LIKELIHOOD OF MEMBER TO USE ED FOR MINOR CONDITION
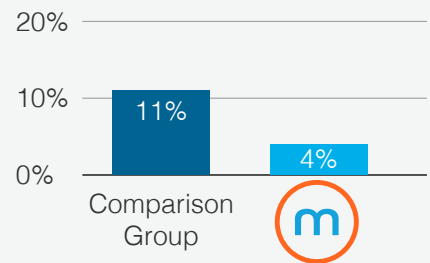
Behavioral Health Program Adoption

Challenge

Adult Medicaid enrollees are more likely to have mental health disorders than the privately insured.[4] The higher rate of behavioral issues impacts outcomes and healthcare costs as these individuals are associated with higher rates of chronic conditions and more regular use of the ED. Adding to the challenge, nearly half of individuals with mental health issues do not receive necessary treatment. A world-leading digital health company (contracted by a State Medicaid Program) needed to identify at-risk individuals for mental health issues to drive adoption of its digital mental health therapy solution.

Solution

The company used mPulse's Program Adoption solution to deliver interactive text dialogues to identify statewide Medicaid members at risk for mental health issues and direct them to appropriate online clinical support resources. The program was designed to reach large populations and engage vulnerable members of the state's Medicaid population. Texts were automatically personalized and interactive, offering additional details if members asked for more information. Members who were interested in the therapy program could click a trackable link to take them directly to a dedicated site to start the self-referral process. The organization had previously used a range of outreach channels including, mail, phone, online advertising and social.

Results

The program was delivered at scale, with over 400,000 Medicaid members reached across the state. After launch of the program, the text channel was responsible for over 80% of referrals to the organization's digital therapy services. The program was able to engage significant numbers of the population, with over 6% of members taking to steps to address their behavioral health needs.

ONLINE THERAPY SIGN-UPS BY OUTREACH CHANNEL

mPulse mobile
82%

Physician Referrals, FaceBook Ads and Word of Mouth
18%
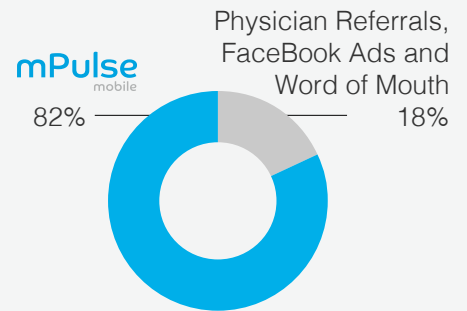
Gaps in Care

Challenge

Care Gaps indicate an individual is not getting important care that they need, which can lead to worsening of health outcomes over time. Key HEDIS measures address common care gaps, such as flu vaccinations, preventive screenings and child wellness visits. Many different factors influence why individuals miss getting the care that they need. Some, such as forgetting or lack of awareness, can be addressed by straightforward reminder programs and nudges. However, many reasons are impacted by more complex factors such as social determinants of health and psychographics. In these instances, conversational programs are highly effective at uncovering the key issues and tailoring conversations to address these barriers. The following case studies highlight key Gaps in Care solutions implemented by two separate MCOs.

Midwest Medicaid Plan: Well-Child and Adolescent Well-Care Visits

Solution

Members who were opted in to the text programs received programmatic messages about the importance of Well-Child and Adolescent Well-Care visits. The visit rate of the population who received the mPulse program was compared to the general population that had received standard mail and phone outreach.
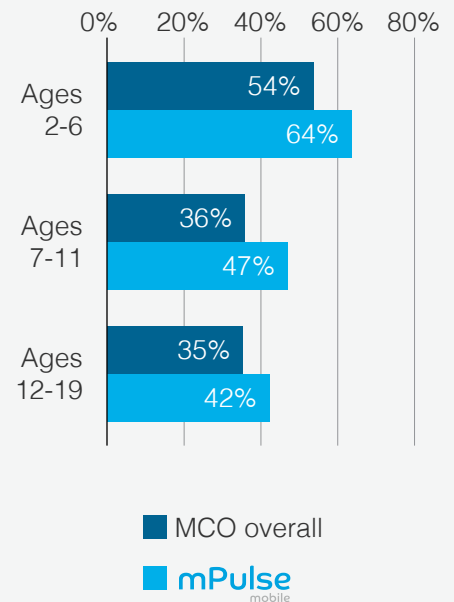
Results

17,208 members who received text messages from mPulse had significantly higher visit rates than the comparative group:

- For 2-6 year child wellness checks, the text program achieved a 63.7% completion rate compared to 53.8% for the general population

- For 7-11 year child wellness checks, the text program achieved a 47.0% completion rate compared to 35.9% for the general population

- For adolescent annual well visits, the text program achieved a 42.3% completion compared to 35.4% for the general population

The program results were achieved without any additional incentives.

CHILDREN AND ADOLESCENTS WHO HAD A PCP VISIT IN THE LAST YEAR

Ages 2-6	MCO overall: 54% / mPulse: 64%
Ages 7-11	MCO overall: 36% / mPulse: 47%
Ages 12-19	MCO overall: 35% / mPulse: 42%

■ MCO overall

■ mPulse mobile

**SCREENING COMPLETION
RATE FOR PREVIOUSLY
UNENGAGED POPULATION**

48%

Midwest MCO with 300,000 Members: Screenings

Solution

The mPulse Gaps in Care solution targeted 11,225 members that had not completed key screenings in response to mail, phone and advertising efforts. The messaging programs focused on HbA1c tests, lead screenings and mammograms. Message content referenced available incentives to further drive screening completions. The solution connected members to key plan resources, including a gift card incentive, transportation assistance, and live agent phone calls to schedule appointments.

Results

5,343 screenings were completed across the 3 quality areas, representing a 48% completion rate for a previously unengaged population.

*Midwest MCO with 300,000 Members:
Well-Child and Adolescent Well-Care Visits*

Solution

The same MCO also focused on Adolescent Well-Care and Well-Child visits. The targeted population of 4,124 members had not scheduled clinic visits despite previous phone and direct email outreach. The program sent automated text messages to encourage them to complete visits, with information on visit incentive programs.

Results

The program achieved 18% and 17% visit completion for the child and adolescent wellness visits, respectively. This represented a total of 2,011 additional visits through the mPulse solution.

Redetermination

Challenge

When individuals fail to renew their Medicaid coverage, they miss important care and support services. At the same time, Medicaid organizations must devote additional administrative resources to reach and drive re-enrollment with members who have lost coverage. Efficient redetermination improves Medicaid plan performance as well providing stability to eligible households. Timely action by members whose coverage is up for renewal is vital to the redetermination process. Members who are slow to renew, and most at risk of churning, are frequently those that are hardest to reach and engage. To activate these member segments, leading health organizations are leveraging interactive redetermination programs to provide resources and support to drive action.

***Midwest MCO with 300,000 Members***

Solution

The redetermination program targeted 6,000 members with conversational outreach. The conversations asked the members to confirm if they had completed the renewal process to help identify members who needed additional support. Those who responded no or did not respond received additional tailored follow-up. Additionally, the program asked questions to uncover common objections and concerns for those members.

Results

The redetermination rate for all members was 14.4 percentage points higher after implementation of the program. With the conversational text program, the redetermination rate averaged 66.5% over the 2 full months after launch which compared to 52.1% over the preceding period.

REDETERMINATION RATES BEFORE AND AFTER PROGRAM

Bar chart showing Comparison Group at 52% and the mPulse program at 67%.
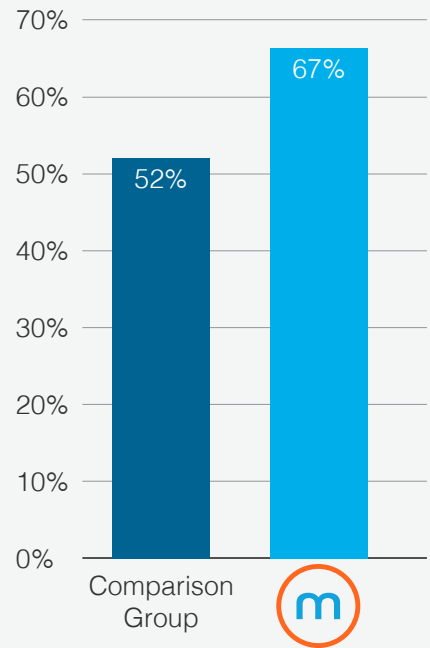
Washington DC-Based Plan with 31,000 Members

Solution

The initial program targeted 1,800 members who had not recertified for coverage after mail and phone outreach. Text messages were sent at 90 days from their recertification deadline and then at 60 and 30 days to members who did not complete the process. The messages included a link to the recertification page.

Results

The program drove 5-10% increases in overall recertification over 3 months. Messages with links generated a 20% click through rate, and 93% of members who clicked the link completed the recertification.

Mid-Atlantic MCO with 250,000 Members

Solution

The program targeted 5,500 members who had not yet acted to renew coverage following mail and phone reminders. These members were compared with 9,000 members who had to renew over the same time period but did not receive the mPulse program. The conversational program targeted English- and Spanish-speaking members and addressed common objections and concerns, such as change of address, income change and explaining why recertification is necessary.

Results

Members who received the redetermination program were significantly more likely to remain covered than the comparison group, with a 9-percentage point increase in redetermination rates. The coverage termination rate was 29.7% for the mPulse group, compared to 38.7% overall rate for the month.

RECERTIFICATION COMPLETION AMONG MEMBERS WHO ENGAGED WITH REDETERMINATION TEXT MESSAGING PROGRAM

93%

Program Governance

Challenge

The MCO covers over 250,000 lives, with 213,000 aged 18 and under and 96% benefitting from the Temporary Assistance for Needy Families program. The plan's members had lower utilization of key health services—48% had not had a PCP visit in the preceding 12 months and 56% did not have a dental visit history on record—but comparatively high usage of the Emergency Department, with 50% having visited in the preceding 12 months. To address these challenges, the organization needed to engage its member population across a broad range of health topics. The breadth of health topics and individual member needs made traditional outreach approaches using mailers and IVR impossible.

Solution

The MCO deployed mPulse's Program Governance solution to reach and engage members at scale across more than 40 different health topics such as preventative health services, infant vaccinations, pregnancy services, how to find a PCP, infant dental care etc. 17,000 members received automated conversations over a 12 month period from a library of over 100 dialogues. The Conversational AI solution orchestrated the delivery of conversations to ensure individuals received the most impactful messages based on their health status, previous engagement and the MCO's engagement priorities.

Results

The solution created an average of 60 new touchpoints per member per year. Member engagement with the dialogues was high; of the ~300,000 dialogues sent across the 40 different health topics, the average member response rate was 25%. The majority of these topics are areas the MCO would otherwise not have been able to engage members about. Retention of members in the messaging program was very high given the high frequency of touchpoints, with 85% of members remaining opted-in to the program after a year of text engagement. High retention rates indicate members find the program valuable, and demonstrates member engagement using tailored conversations is a positive member experience.

AVERAGE RESPONSE RATE TO PROGRAM DIALOGUES

25%

MEMBERS STILL OPTED-IN TO PROGRAM AFTER ONE YEAR

85%

Operational Efficiencies

Across a broad range of messaging programs, mPulse Mobile's Conversational AI solutions demonstrate the ability to engage member populations effectively and drive specific behavior change-related outcomes. In addition, Medicaid organizations leveraging Conversational AI have reported the following key areas of operational efficiency:

• Conversational AI solutions require minimal manual involvement, which means large portions of the population can be engaged at scale without live staff support.

• Programs generate large amounts of data due to their interactive nature, which provides insights about the member population and solution effectiveness. For example, a New Member Navigation program encouraging urgent care use had high levels of negative sentiment within a specific geographic area. An analysis of the member responses revealed a lack of urgent care facilities in the members' area. This allowed the MCO to adapt messaging and explore adding a facility to the area.

• Text programs are highly configurable and can be implemented quickly to support specific events and initiatives. For example, text outreach is an effective way to notify members within a specific area about mobile clinics and services, and many healthcare organizations use text messaging to provide updates and information on resources to consumers during disaster situations.

• Text messaging can support a broad range of health engagement topics and can be used in parallel with other motivational strategies, such as incentives. Medicaid organizations use text messages to deliver information on incentives, and/or can target incentives to specific members that need to complete key actions.

Conclusion

These case studies demonstrate how Conversational AI delivers automated, dynamically tailored conversations to drive behavior change related to key health engagement challenges. Across the different programs highlighted, member engagement is consistently high, the sentiment of member responses is strongly positive and program opt-out rates are low, in the range of 5-12%. Together these key indicators demonstrate member preference for receiving this type of tailored conversational messaging.

Many organizations start their Conversational AI deployments by focusing on one (or a small number) of key engagement pain points that have a significant impact on their business. Next, after demonstrating positive outcomes results and the feasibility of the channel, additional programs are added to address more challenges. The efficiency of Conversational AI means these programs can be scaled with minimal additional resources, and multiple programs can be coordinated by leveraging program governance capabilities. A Medicaid organization delivering at least one tailored conversation a week per member will have an additional 50 meaningful conversations with each member over the course of a year. This level of engagement has the potential to make significant improvements in health activation and drive better outcomes across a broad range of health areas.

References
1. https://www.healthaffairs.org/doi/10.1377/hlthaff.2012.1061 or the Hibbard article: Hibbard, J. H., Stockard, J. , Mahoney, E. R. and Tusler, M. (2004), Development of the Patient Activation Measure (PAM): Conceptualizing and Measuring Activation in Patients and Consumers. Health Services Research, 39: 1005-1026.
2. Pew Mobile Factsheet 2018
3. Deloitte 2018 Survey of US Health Care Consumers
4. https://www.kff.org/medicaid/issue-brief/medicaids-role-in-financing-behavioral-health-services-for-low-income-individuals/

Notes

About mPulse Mobile

mPulse Mobile, the leader in Conversational AI solutions for the healthcare industry, drives improved health outcomes and business efficiencies by engaging individuals with tailored and meaningful dialogue. mPulse Mobile combines behavioral science, analytics and industry expertise that helps healthcare organizations activate their consumers to adopt healthy behaviors.

With over a decade of experience, 100+ healthcare customers and more than 300 million conversations annually, mPulse Mobile has the data, the expertise and the solutions to drive healthy behavior change.

To ask a question or request a call, go to: mpulsemobile.com/contact

mpulsemobile.com