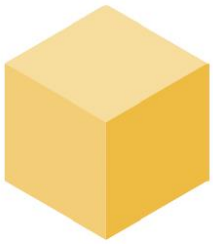


MEMOTEXT

Literature Summary 2025

March 4th, 2025

Version	Contributors	Date
5.0	Keerthana Mundlapudi BHSc., Amos Adler M.Sc.	February 2025
4.0	Samuel Njau, Univ of Guelph MPH student, Amos Adler M.Sc.	July 2023
3.0	Nimrit Dhillon, Univ. of Waterloo Biomedical Engineering Student Intern, Amos Adler M.Sc.	July 2022
2. 0	Gillian Drukmaler MMI, Amos Adler M.Sc., Charles Yoon PhD., Wenjia Zhou MHI	November 2020
1.0	Mareena Mallory MHI, Amos Adler M.Sc.	May 2018

Table of Contents

Introduction

Since its launch in 2012, MEMOTEXT® has evolved from a basic SMS reminder tool into a proven, clinical-grade platform for data-driven digital health engagement. Initially used to deliver simple prompts for medication adherence and motivation, early user data revealed a critical insight: generic reminders alone were not effective. To achieve long-term impact, engagement needed to be relevant, responsive, and meaningful.

Now recognized as a leader in Just-In-Time Adaptive Interventions (JITAIs), MEMOTEXT's platform delivers support that adjusts in real time, sending personalized SMS text messages, notifications, interactive voice prompts, in-app content and driving conversational experiences. These adaptive touchpoints are triggered by a combination of user-reported inputs, clinical milestones, behavioral patterns, and various health data such as wearable or claims data ensuring every interaction is relevant, well-timed, proactive and grounded in evidence.

Today, MEMOTEXT stands as a comprehensive data-driven platform, adaptive toolkit, and growing marketplace for digital health engagement. Designed for co-creation, MEMOTEXT enables clinicians, researchers, and commercial partners to rapidly build, validate, and scale evidence-based interventions across diverse populations and care settings. The MEMOTEXT Marketplace offers a curated suite of pre-validated, ready-to-deploy digital engagement programs. Programs and apps are built to an 80% completion based on proven outcomes across conditions like diabetes, ADHD, mental health, and more.

Today, MEMOTEXT partners with academic institutions, healthcare providers, insurers, and pharmaceutical companies to co-create, validate, and deploy digital patient engagement solutions that meet both regulatory and ethical standards. Our mission is to 'make health data useful', harnessing and leveraging health data to deliver equitable and efficacious digital health communication programs.

MEMOTEXT has iterated on its approach, evolving into a flexible, enterprise-grade platform with secure, multi-site infrastructure across Canada and the U.S., HIPAA, PIPEDA, and PHIPA compliant and built to power dynamic, data-driven interventions tailored to each individual's context.

In that time, MEMOTEXT has participated in or supported at least 70 named digital health programs, most of which are associated with:

- Academic clinical trials
- Pharmaceutical and pharmacy adherence programs
- Public, population and employer health initiatives
- AI and LLM powered tools and predictive modelling projects
- Co-commercialization projects

Many of these interventions were conducted in partnership with institutions such as The Centre for Addiction and Mental Health (CAMH), Vanderbilt University, University of British Columbia, Johns Hopkins University, UCSD, UCSF, Massachusetts General, and others. Several have been published in peer-reviewed journals or presented at academic conferences (e.g., JAMA Ophthalmology, JMIR, BMJ Open, APSARD, PQA) often with documented outcomes such as prescription refill persistence, HbA1c reduction, adherence improvements, or readmission reduction initiatives.

Methodology of Review

The platforms chosen for this literature summary focus on research and programs completed by or in collaboration with the MEMOTEXT team. Posters, documents, presentations, and publications from MEMOTEXT initiatives were reviewed both internally and externally by various commercial and academic groups.

To streamline navigation and enhance clarity, the organizational structure of this literature summary has been simplified. Programs have now been categorized into five main areas:

1. Mental Health Programs
2. Patient Support and Self-Management Programs
3. Care Coordination Programs
4. Adaptive and Data-Driven Adherence Programs
5. Health Literacy & Education Programs

This updated structure (2025) facilitates easier access, improved readability, and efficient identification of relevant interventions and outcomes.

Findings of Review

Mental Health Programs

The Centre for Addiction and Mental Health (CAMH): A4i

The App4Independence (A4i) is a Joint Venture between the Centre for Addiction and Mental Health (CAMH) and MEMOTEXT. A4i is Canada's first digital therapeutic with a regulatory pathway for complex behavioural health. A4i's premier indication is to provide support, isolation-reduction and relapse-risk identification in schizophrenia and psychosis spectrum illnesses. We have brought together the expertise of Dr. Sean Kidd, Chief-Psychology Division and Senior Scientist at CAMH, Associate Professor of Psychiatry at the University of Toronto and Amos Adler M.Sc., the CEO of MEMOTEXT Corp. a leading innovator in personalization of validated digital therapeutics and strong advocate for evidence and empathy based digital patient engagement solutions.

A4i is a response to the gaps in the current system of care for individuals with schizophrenia-spectrum illnesses. Treatment and provider engagement are challenging areas in schizophrenia care. Challenges in schizophrenia-spectrum illness include poor community-based supports, care-transitioning, medication adherence and dissatisfaction with clinical care. These challenges contribute to frequent, lengthy, and costly hospital readmissions, low QOL, high levels of distress and difficulties engaging in community roles. Digital engagement is a promising but largely unexplored and under-studied resource in schizophrenia care compared to advances in areas such as mood and anxiety disorders. They are particularly salient given their reach, low cost, and increasing relevance to younger schizophrenia populations most of whom use mobile technologies.

The co-commercialized provider-innovator partnership has been iterating and testing the feasibility of a mobile intervention called App4Independence (A4i). A4i is an (iOS/Android) intervention to help reduce isolation, improve care coordination and support and validate models towards predictive insights into relapse risk. The patient co-designed app personalizes engagement using a data-driven (social) feed, notifications and messaging based on an evidence-informed intake portal, responses to notifications and ambient phone data (sleep/activity data and objective usage/digital phenotypes). Personalization manifests in peer-to-peer, evidence-based and ADL feed and notification content tailored to the individual. The app also provides symptom based 'toolkit' elements such as a patent pending ambient sound detector to help patients determine the difference between ambient noise and auditory hallucinations.

A feasibility randomized controlled trial (RCT) of A4i randomized 91 participants with schizophrenia-spectrum disorders to A4i plus treatment as usual (TAU) or TAU alone over six months. While engagement objectives were not fully met, the intervention was received positively by users, with satisfaction ratings and qualitative feedback highlighting increased communication with clinicians, enhanced goal setting, and improved structure of clinical consultations (Kidd et al., 2024). Implementation was challenged by pandemic-related restrictions, but clinician and peer support were key facilitators. Median user interactions over 90 days reached 354 and 362 in outpatient settings with clinical support, significantly higher than those in more self-guided environments (Sequeira et al., 2023). Overall, the trial underscored strong feasibility with consistent retention and highlighted contextual strategies for future scaling.

Outcomes**:** Across three implementation sites, A4i maintained retention rates of 93–100% at 90 days. Median user interactions ranged from 125 to 362, with significantly higher engagement when peer support or clinicians were involved (Sequeira et al., 2023). In earlier pilot data, retention rates were 94% at 20 days (Kidd et al., 2019), and emerging evidence from ongoing studies suggests early symptom improvements and the potential for digital biomarkers of relapse (A4i Executive Summary, 2022).

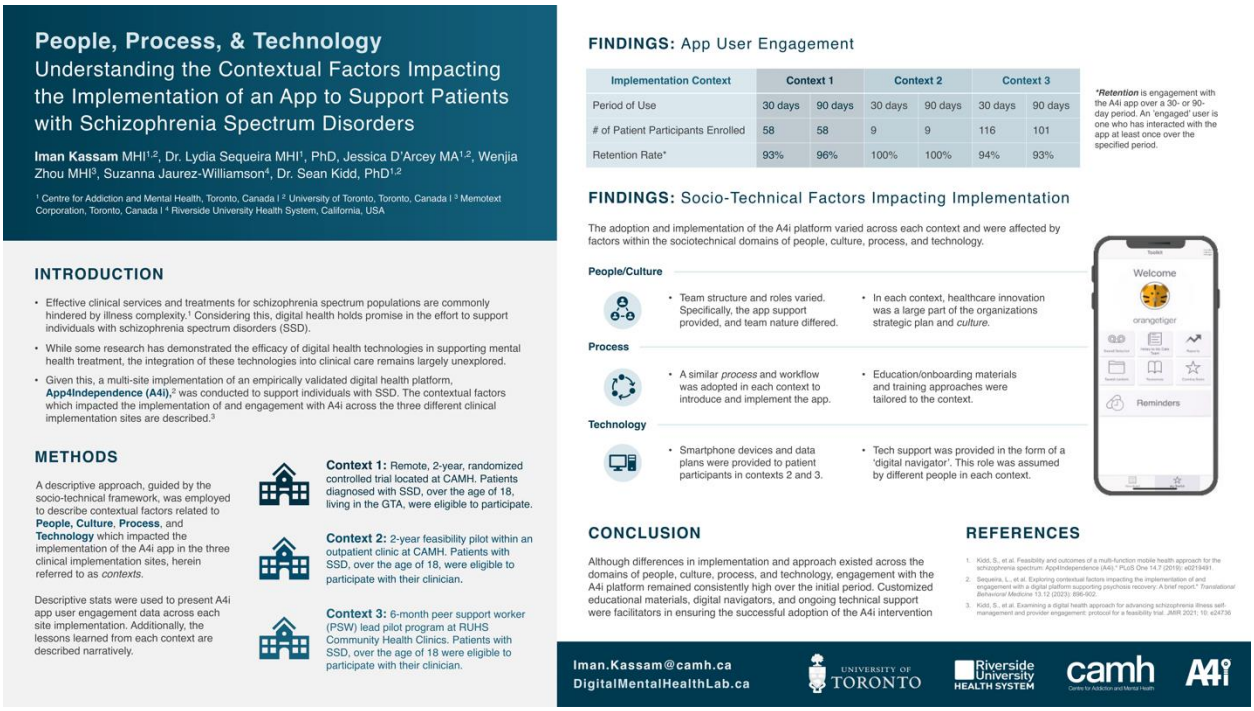


Figure 1. A4i Poster

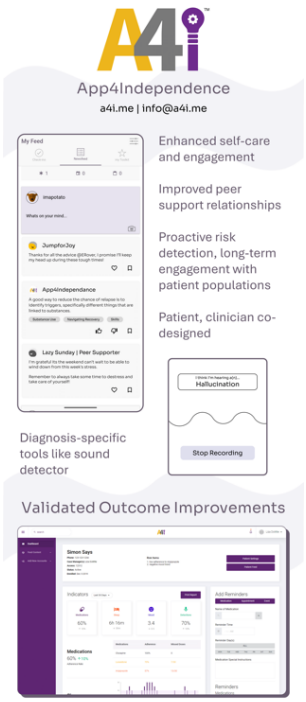


Figure 2. The A4i Application

Link: Feasibility and outcomes of a multi-function mobile health approach for the schizophrenia spectrum: App4Independence (A4i)

Examining a Digital Health Approach for Advancing Schizophrenia Illness Self-Management and Provider Engagement: Protocol for a Feasibility Trial

A4i: Bringing digital health to one of healthcare's most challenging and costly domains: Severe and persistent mental illness – Dr. Sean Kidd at MOVES22

App for independence: A feasibility randomized controlled trial of a digital health tool for schizophrenia spectrum disorders

Exploring contextual factors impacting the implementation of and engagement with a digital platform supporting psychosis recovery: A brief report

Riverside University Health System: A4i Pilot Implementation

As part of the Help@Hand Innovation Project, Riverside University Health System—Behavioral Health (RUHS-BH) implemented a pilot of the App4Independence (A4i) platform from 2021 to 2023. A4i is a digital therapeutic originally developed through a joint venture between MEMOTEXT and CAMH. The Riverside pilot focused on enhancing peer support capacity, reducing relapse and readmission rates, and scaling access to care for individuals with schizophrenia-spectrum and other severe mental illnesses (SMI).

RUHS-BH recruited 102 participants for the six-month pilot. Participants received a smartphone preloaded with A4i, including features such as a moderated peer-to-peer newsfeed, medication and appointment reminders, daily wellness check-ins, goal tracking, notes to care teams, and a patented ambient sound detector. Peer support specialists led onboarding, technical support, and moderated content throughout the pilot.

Outcomes: The pilot achieved a completion rate of 67.6% (n = 69). App engagement averaged 76.9% weekly over the six-month duration. High feature utilization included 91% of participants using the newsfeed, contributing over 28,000 posts, and 82% completing daily check-ins with over 44,000 entries logged. Statistically significant improvements were observed in clinical outcomes from pre- to post-assessments: depression and functioning (-21.0%), emotional lability (-21.4%), psychosis (-29.0%), and substance abuse (-32.4%) (RUHS-BH, 2024). Quality of life scores improved in emotional well-being (+63.2%), sense of community (+81.8%), and satisfaction with life (+58.8%) (RUHS-BH, 2024). The pilot also demonstrated cost savings of $4,000 per patient per day due to reduced hospitalizations and generated $50,000+ monthly in reimbursable peer support services (RUHS-BH, 2024).

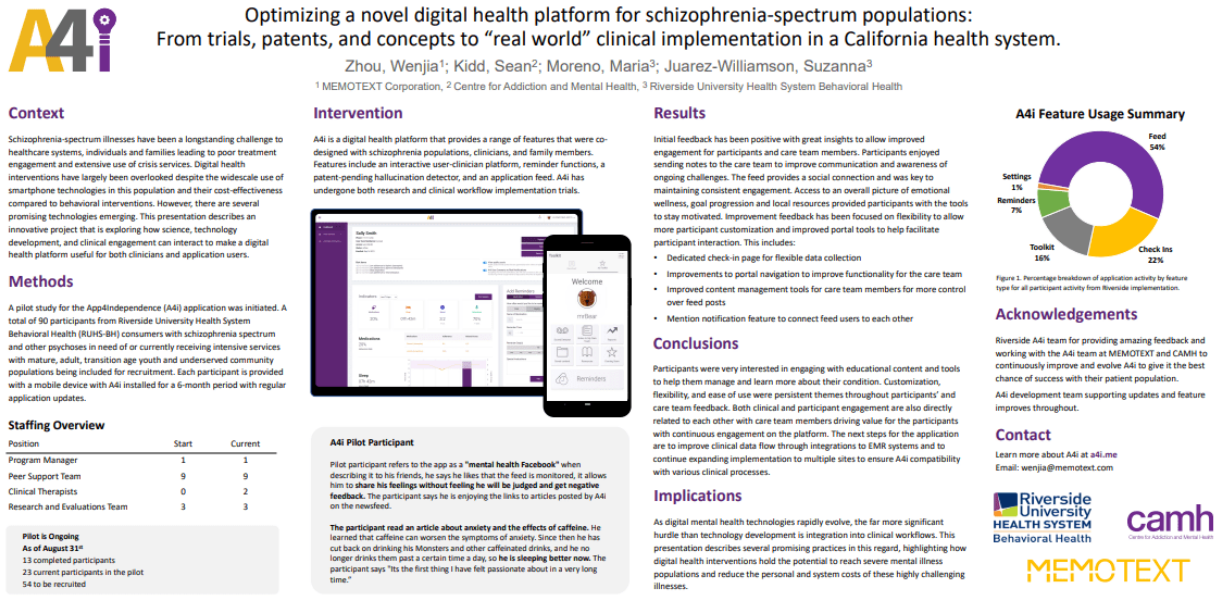


Figure 3:

Link: [Riverside County Evaluation Report]

[Help@Hand Innovation Project Evaluation Report 2021-2024]

The Royal Ottawa Mental Health Centre: A4i Pilot Implementation

In collaboration with the Centre for Addiction and Mental Health (CAMH) and MEMOTEXT, The Royal Ottawa Mental Health Centre piloted the A4i digital therapeutic platform with funding support from OBIO's Early Adopter Health Network (EAHN™). The project was deployed within The Royal's Ozerdinc Grimes Family Regional Psychosis Clinic to explore the feasibility of integrating A4i into clinical workflows for individuals with schizophrenia-spectrum illnesses.

The A4i platform was implemented over a 12-month period and included features such as personalized daily wellness check-ins, peer-to-peer community feeds, symptom tracking, and a provider-facing clinical dashboard. Patients accessed the mobile app, while clinicians used the A4i portal to track wellness trends, prepare for appointments, and support risk identification. The implementation was designed to support social connection, self-management, and care coordination for individuals with complex mental illness.

Outcomes**:** While the full quantitative evaluation is ongoing, early feedback from clinicians and clients highlighted the platform's value in enhancing care coordination, appointment preparation, and communication. The A4i implementation at The Royal was deemed successful, meeting the quadruple aim of healthcare—improving patient and provider experience, reducing costs, and supporting population health. Based on positive feedback and early indicators, A4i was deemed ready for broader adoption and procurement within EAHN member hospitals.

A4i-O: App4Independence for Opioid Use Disorder

A4i-O is a digital health extension of the A4i platform, co-developed by the Centre for Addiction and Mental Health (CAMH) and MEMOTEXT, aimed at supporting individuals living with opioid use disorder (OUD). The tool was designed to complement Medication-Assisted Treatment (MAT) by providing psychoeducational content, behavioral self-management strategies, asynchronous peer and clinician communication, and daily check-ins. Developed through a co-design process with individuals with lived experience of OUD, A4i-O personalizes care delivery through modular, user-driven features including goal tracking, mood monitoring, and a peer-to-peer content feed.

The feasibility and acceptability of A4i-O were evaluated in a single-arm pilot study involving 30 participants who used the app over 60 days. Participants were primarily adults receiving outpatient OUD services. The study found that A4i-O was feasible to implement in outpatient care and well-received by users. Most participants reported that the app helped with managing their treatment (75%) and provided a sense of support (71%). Notably, 68% of users reported that A4i-O helped them feel more hopeful about their recovery. Engagement data indicated that most participants interacted with the app at least every other day, particularly using check-ins and the content feed (Kidd et al., 2024).

Outcomes**:** These outcomes are presented from the beta that was released. Among the 30 participants, 86.7% reported A4i-O as easy to use, and 75% found it helpful in managing their treatment. Key engagement features included daily check-ins and educational content modules. The study demonstrated preliminary feasibility and acceptability of A4i-O in outpatient OUD care, suggesting the potential for broader deployment and future controlled trials (Kidd et al., 2024).

The release of the public program is currently in progress, with evaluation results and additional outcomes forthcoming.

Link: Co-Design of a Digital Health Tool for Use by Individuals With Opioid Use Disorder: App4Independence (A4i-O)

University of California San Diego (UCSD): CalmDoc

CalmDoc is a text-based system to continuously follow physician stress levels in their native environment. Our system sends one single-item stress question (SISQ) per week via text at random times (between 9am and 4pm) and days (Monday-Friday). It has been shown that SISQ scores correlate with exhaustion, workplace injury, sense of control/reward, depression, and intention to leave. The simple assessments occur continuously and are coordinated throughout an institution providing numerous stress data points weekly. Assessing stress and burnout in this manner highlights where interventions are most needed both temporally and spatially in the hospital.

Outcomes: Over a 12-week period, 11 physician trainees received 115 SISQs, with an overall response rate of 72.2%. 10 out of 11 participants responded to at least one prompt, and 6 responded to 8 or more. The median stress score was 3 (IQR 2–5), and 55% reported a maximum score of ≥7, indicating high stress. At follow-up, 18% had PHQ-9 scores ≥10 and 9% had GAD-7 scores ≥10. Qualitative feedback confirmed high acceptability, ease of use, and the tool's potential to prompt regular self-reflection and normalize mental health monitoring (Das et al., 2023).

Link: CalmDoc: Clinician burnout prediction using ecological momentary assessments – Dr. Byron Fergerson at MOVES22

Evaluating the Mental Health of Physician-Trainees Using an SMS Text Message–Based Assessment Tool: Longitudinal Pilot Study

University of Saskatchewan: BeWell

Co-created with the University of Saskatchewan and CAMH, this SMS Intervention was developed to support all residents of Saskatchewan who were looking for mental health and wellness supports and resources during the COVID-19 pandemic. The MEMOTEXT platform provided a personalized interactive digital messaging intervention

to allow individuals to get access to mental health support and resources. The research was funded by a Canadian Institute of Health Research (CIHR) nationally funded grant. The program was also in-licensed by MEMOTEXT for co-commercialization in the employer, academic and institutional industry verticals.

Link: Lessons learned developing and deploying a provincial virtual mental health support during the COVID-19 pandemic

Supporting population mental health and wellness during the COVID-19 pandemic in Canada: protocol for a sequential mixed-method study

Be SaskWell: COVID-19 mental health navigation and support – Dr. Tracie Risling and Dr. Gillian Strudwick at MOVES22

Implementation of a population mental health and wellness text-message service: a mixed-methods study

Georgian College: Mental Health & Wellbeing Digital Platform

Built off the SaskBeWell program, Georgian College developed this program to enhance student mental health support and culturally responsive engagement. The initiative integrates three components: a secure live chat system, an enhanced resource recommendation engine, and a culturally adapted messaging initiative.

The live chat feature allows students to connect in real time with trained mental health professionals through a secure, mobile-friendly interface. It includes queueing, simultaneous chat capacity, and transcript storage, and is integrated into Georgian's student portal. An enhanced version of the BeWell@Georgian platform enables students to complete self-assessments and receive tailored mental health resource recommendations based on demographic and behavioral data. Features like gamification and check-in messaging aim to increase engagement and flag students for follow-up support.

The Building Belonging: Culturally Connected Communities stream complements the digital platform with SMS and WhatsApp messages co-designed with international student peer supporters. Messages promote inclusivity, raise awareness of culturally relevant mental health services, and include follow-up surveys to assess satisfaction and service uptake.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

Link: Impacts in Digital Mental Health Engagement: A BeWell @ Georgian College Story

Centre for Addiction and Mental Health (CAMH): BeWell Mental Health Texting Program

This program was built off of the SaskBeWell platform and co-designed by CAMH as part of a strategic approach to address clinician burnout, particularly among social workers (SWs) and occupational therapists (OTs). Supported by the Ontario Bioscience Innovation Organization (OBIO) through the Early Adopter Health Network grant, the BeWell SMS-based mental health program was implemented over a 12-week period between May and October 2023. Participants enrolled through an online intake form or by texting a designated keyword and received tailored SMS messages twice weekly. Messages included wellness strategies, professional appreciation, curated development opportunities, and peer-informed motivation. Messaging content and delivery timing were informed by clinician advisors and participant preferences (Kassam et al., 2023)

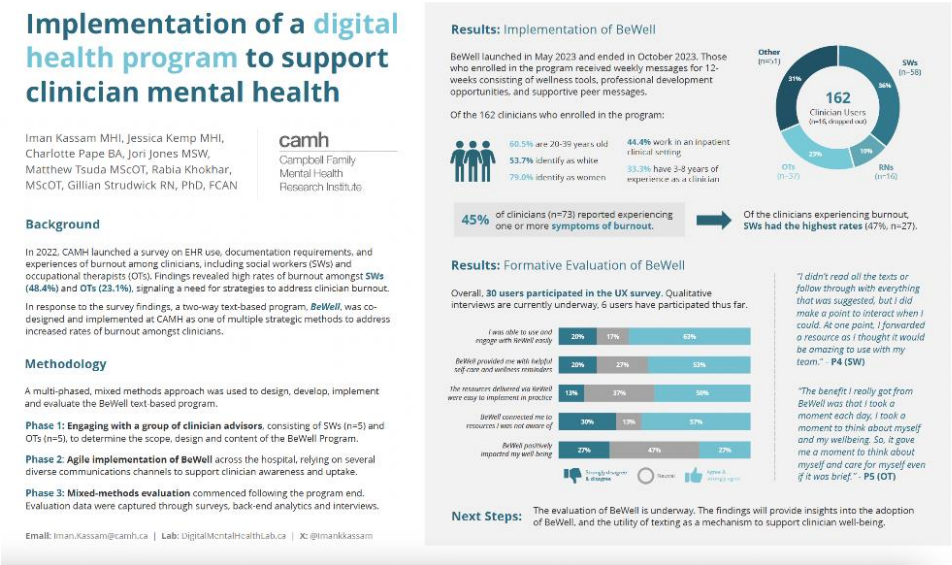


Figure 4: Implementation of a digital health program to support clinician mental health

Outcomes: A total of 162 clinicians enrolled in the program, with the majority identifying as women (79%) and nearly half (60.5%) between the ages of 20 and 39. Social workers (36%) and occupational therapists (23%) made up the largest user groups. Prior to enrollment, 45% of participants reported experiencing one or more symptoms of burnout, with social workers showing the highest burnout rates at 47% (Kassam et al., 2023).

In a formative evaluation of the program's user experience (UX), 30 participants completed a feedback survey. The majority found the program easy to use and engage with, with 63% reporting a positive experience navigating the SMS-based tool. Over half of respondents (53%) said that BeWell provided helpful self-care and wellness reminders, and 52% found the resources delivered were easy to apply in their day-to-day roles. Notably, 57% of users indicated that BeWell introduced them to new resources they had not previously accessed, and 47% agreed or strongly agreed that the program had a positive impact on their overall well-being. Qualitative feedback highlighted that BeWell served as a gentle but effective prompt for clinicians to reflect on their personal wellness and take brief moments throughout the workweek to care for themselves (Kassam et al., 2023).

Link: BeWell AMIA 2023 Presentation

Patient Support & Self-Management Programs

Health App Finder

The Health App Finder is a web-based tool designed to help individuals with Irritable Bowel Syndrome (IBS) find and evaluate mobile health apps. Developed in collaboration with Dr. Adrijana D'Silva from the University of Calgary and the IMAGINE Network, the platform offers a centralized, PHIPA-compliant space where users can search, access, and review IBS-related applications based on functionality, including symptom tracking, mental health support, and dietary guidance.

Built through an iterative co-design approach, The Health App Finder ensures usability by incorporating feedback from individuals with lived experience. It enables users to contribute ratings and comments, fostering a collaborative patient community. An administrative dashboard supports app management and content updates, ensuring continuous improvement.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

SickKids, University Health Network (UHN), and McGill University: KiT (Keeping in Touch)

KiT (Keeping in Touch) is a text message–based digital intervention co-developed with SickKids Hospital, University Health Network, and McGill University to support adolescents with Type 1 Diabetes (T1D) as they transition from pediatric to adult care. The program was designed to address the sharp decline in glycemic control and clinic attendance often seen during this high-risk period (Sanmugalingham et al., 2023).

The KiT intervention delivers tailored educational messages, appointment reminders, and care navigation tips based on a participant's self-reported confidence and readiness. Messages are offered in English or French and are delivered through a secure automated system. The chatbot also includes a keyword-triggered Q&A feature linked to validated T1D transition resources.

KiT is currently being evaluated through a multisite, randomized controlled superiority trial across six pediatric diabetes clinics in Ontario and Quebec. The study will recruit 183 participants aged 17–18 years who are within four months of their final pediatric diabetes visit. Participants are randomized to receive either KiT or usual care over a 12-month period (Sanmugalingham et al., 2023).

Link: Text message-based intervention, Keeping in Touch (KiT), to support youth as they transition to adult type 1 diabetes care: a protocol for a multisite randomised controlled superiority trial

Text-Based Program Helps Support Smoother Transitions to Adult Care

Outcomes**:** The primary outcome is diabetes self-efficacy, measured at 12 months using the Self-Efficacy for Diabetes Self-Management (SEDM) scale. Secondary outcomes include transition readiness (READDY tool), perceived stigma (BDA questionnaire), HbA1c levels, time in range (CGM users), and the interval between final pediatric and first adult visits. Health system utilization data (hospitalizations and ED visits) and

implementation costs will also be collected and analyzed (Sanmugalingham et al., 2023). Results are forthcoming.

Sanofi Genzyme: Medication Reminder Program

In partnership with Sanofi Genzyme, a medication reminder and education program was developed in 2010 for adults with lower phosphorus levels as a result of Chronic Kidney Disease. Recruitment was done via online advertising and enrollment was completed by Sanofi Genzyme online or via a faxed form from the patient. In the program, participants received up to one message per day which included content such as recipes that focused on kidney health.

Outcomes: Outcomes of this intervention are confidential.

Leo Pharmaceuticals: Data Collection by IVR

A data collection intervention was completed for Leo Pharmaceuticals for participants that were newly diagnosed with Actinic Keratosis in 2013. The population was typically over 40 years of age and prescribed PICATO® as their primary treatment. Recruitment was led by participating HCPs and was integrated with the existing STI/Copay program. Physicians would provide patients with a non-activated coupon card with their prescription to participate in the program each with their own unique identifier. Patients could then complete enrollment and activate their card by inbound IVR or a web portal. In this medication reminder program, messages were scheduled on a predetermined sequence based on rigid dosing and outcomes requirements. Messages included reminders, educational content, and surveys in both English and French via SMS or IVR.

Outcomes*:* Results of this project were high patient satisfaction with the intervention and a self-reported increase in ease of use of the product.

Care Coordination Programs

Nationwide Children's Hospital: Daphne SDOH Resource Chatbot

Partnered with Nationwide Children's Hospital to launch the Daphne Chatbot in January 2025, designed to address Social Determinants of Health (SDOH) needs for families of pediatric cancer patients. The chatbot identifies individual family needs through a brief conversational assessment and automatically provides relevant local resources from the findhelp.org database. This user-friendly digital intervention streamlines access to critical social support, including housing, transportation, nutrition, and financial assistance.

Link: Meet Daphne©, a ChatBot for Pediatric Health Care

McKesson Canada: INVIVA SMS & IVR Appointment Reminder Tool

MEMOTEXT partnered with McKesson Canada in 2017 for an INVIVA SMS Appointment Reminder Tool. This solution was designed to improve the appointment reminder process for patients at INVIVA infusion clinics. As there is a mandate for Patient Care Coordinator (PCCs) to provide appointment reminder phone calls within the 4-6 days prior to a scheduled appointment, the objective of this pilot project was to increase the ability of PCRs to send reminders while decreasing the daily call burden on PCCs through appointment reminders and care coordination. Patients of INVIVA were onboarded by PCRs and an e-consent was completed by SMS, IVR, or manually via nurses at the infusion clinics. A web portal was created to manage both users, patients, reminders, and to create reports. For this tool, patients were sent a reminder via their preferred primary communication method 5 days prior to their appointment. If no response was received, a second reminder was sent 3 days prior to their appointment. If there was still no response from the patient, a third reminder was sent via their preferred secondary communication method the day before the appointment. All message content, including emails, SMS messages, and IVR call scripts were created by McKesson.

As of March 2020, MEMOTEXT began performing COVID-19 screening for patients prior to their appointments to assess health risk. MEMOTEXT integrated a secure mobile-web based COVID-19 screening tool within the SMS care-coordination stream of messaging. We have also worked alongside McKesson to update the screening algorithm as COVID-19 circumstances evolve.

Outcomes: This project is currently active in 75 INVIVA Clinics.

Link: Case Study: Inviva Rises To The Pandemic Challenge

MEMOTEXT: RapidResponse

In response to the spread of COVID-19 across North America's health systems, MEMOTEXT has developed a clinical-grade COVID-19 digital engagement response tool for outreach, assessment and follow-up**.** RapidResponse is a rapidly customizable SMS/IVR (interactive voice response) and web-based tool that can adapt to changing risk, volumes and specific protocol needs. The tool engages with employees, students, parents, or patients to assess health risk and needs and provide recommendations and supports for resources to support one's health based on risk and rapidly changing needs. The customizable dashboard and reporting surfaces insights for providers, clinicians, employers, and administration. In use with employers, home healthcare and large clinics across North America, MEMOTEXT Rapid Response has shown significant reductions in call center times and increased engagement with employees, patients and seniors.

Outcomes: More than 10,000 proactive SMS, IVR, or email messages are sent out each day to patients, students, parents, and employees.

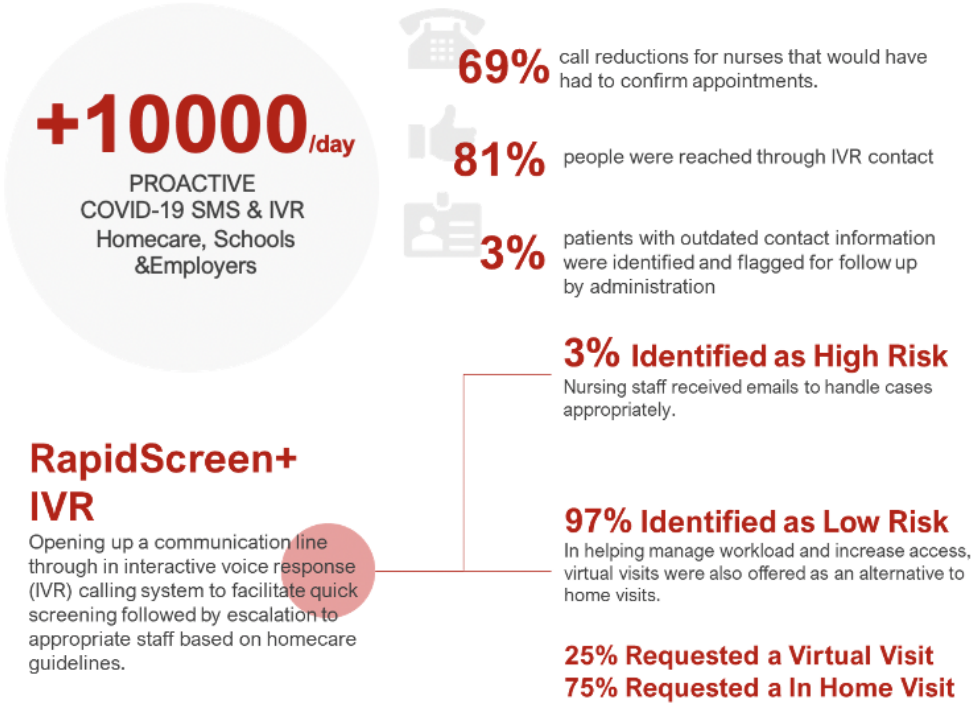


Figure 5. RapidResponse Results

FHI360: HIV Strategy

FHI360 teamed up with MEMOTEXT in 2015 to develop and assess the efficacy of an integrated and scalable strategy to identify, recruit, link to care, retain in care, and maintain viral suppression among HIV-infected men who have sex with men (MSM). Eligible participants were adult patients on antiretroviral drugs or combination therapies. Recruitment was restricted to participants in the study and enrollment was completed by case managers through a MEMOTEXT-designed web portal. Participants in this study received up to three medication reminders, one motivational message, and an unlimited amount of refill or appointment reminders per day. These reminders were set by IVR, SMS or email based on participant preference. Participants had the functionality to reach out to the Case Manager directly from the message in any of the three communication methods offered.

Outcomes: Just over half of the study participants used the system for support. 20 participants were successful in using the communication platform to let their case managers know that they needed assistance.

Adaptive & Data-Driven Adherence Programs

PRAISE (Sleep Apnea Treatment Adherence and Just-In-Time Adaptive Intervention (JITAI) Program)

PRAISE is a digital health intervention designed to enhance adherence to sleep apnea treatment and promote better patient outcomes. Developed in collaboration with Dr. Azizi Seixas at the University of Miami, the program employs a Just-In-Time Adaptive Intervention (JITAI) model to provide personalized, data-driven support.

Through SMS-based engagement, PRAISE delivers tailored reminders, educational content, and culturally relevant resources to help users remain consistent with their CPAP therapy. The program integrates with CPAP machines and ActiGraph devices to track adherence and assess patient progress using a transtheoretical "Stage of Change" model. These insights allow for adaptive interventions that evolve based on patient behavior and engagement levels.

Enrollment is managed through REDCap, and MEMOTEXT provides the backend infrastructure, messaging, and analytics. The program's data-driven approach ensures continuous monitoring and improvement, offering healthcare providers valuable insights into patient adherence patterns.

PRAISE continues to support sleep apnea patients by tailoring interventions to individual needs. Future developments aim to further optimize engagement strategies, refine predictive analytics, and expand the program’s reach to broader populations in need of sleep apnea management solutions. Additionally, added functionalities include enhanced accessibility features, ensuring inclusivity for users with diverse needs, including customizable text formats, and voice-based interactions.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

Vanderbilt University: REACH

A 2016 study titled REACH was created in partnership with Vanderbilt University. This study targeted individuals with Type II Diabetes on various therapies including oral medications, injectable medications, and insulin. Participants must have been adults who have demonstrated difficult maintaining adherence to prescribed treatments. Recruitment was driven by the REACH research team and the clinical trial leaders. Enrollment was completed by the clinician using their REDCap portal during face-to-face interviews with the participant. The REDCap Portal was integrated with MEMOTEXT for easy data exchange. For this study, participants received up to five SMS messages per day including educational material, self-reported adherence, self-reported healthy lifestyle, and feedback based on responses. Message content included reminders, education, support, behavioural skills, and goals. Messages contained both one-way and two-way communications and content was segmented based on questionnaire responses. An additional message was sent to notify participants when their A1c lab results were ready for them to view on a HIPAA-compliant hosted web page (Nelson et al., 2016).

Outcomes: Overall, participants were satisfied with REACH and provided favourable ratings for each of its elements and demonstrated a 96% response rate to assessment test messages (Nelson et al., 2016).

Link: Development and Usability of REACH: A Tailored Theory-Based Text Messaging Intervention for Disadvantaged Adults With Type 2 Diabetes

An additional research study was conducted with Vanderbilt University to examine user engagement in a 12-month text message intervention for diverse adult patients with diabetes. Eligible participants were over the age of 18, diagnosed with Type 2 Diabetes, and are both prescribed and responsible for their diabetes medications. Enrollment for this study was completed by RA's who conducted a preliminary baseline survey and an HbA1c test. Participants' relevant information was transferred from REDCap to the MEMOTEXT health platform. MEMOTEXT used this information to schedule and send text messages to the participants. For the first 6 months of the study, participants received daily text messages that included self-care and interactive content, a subset of participants also received monthly phone coaching. After 6 months, participants had the option of receiving fewer text messages (Nelson et al., 2020).

Outcomes: Patients were satisfied and there was a 91% response rate to interactive text messages over the 12-month period. Nearly half of the participants opted to continue receiving daily text messages after the first 6 months messages (Nelson et al., 2020).

Link: REACH: A tailored SMS intervention for supporting type 2 diabetes self-management – Dr. Lindsay Mayberry and Dr. Lyndsay Nelson at MOVES22

Mass General Brigham Incorporated (MGBI): REACH-Es

Partnered with Mass General Brigham Incorporated (MGBI) in 2024 for the REACH-Es program, a digital health intervention aimed at improving medication adherence for Latino populations with Type II Diabetes. This program adapted the previous REACH study to meet the cultural and linguistic needs of Spanish-speaking participants. Recruitment was led by the MGBI team, and enrollment was completed through a web-based portal. Participants provided baseline data and preferences upon enrollment, after which they began receiving personalized SMS messages in Spanish. These messages were tailored based on responses to evidence-based questionnaires that identified barriers to medication adherence. The program delivered both one-way messages, including educational content, medication reminders, and A1c result notifications, as well as two-way interactive messages to track adherence and gather real-time feedback.

The A1c results were provided to participants via SMS, with a link to view personalized feedback on a HIPAA-compliant website. The program also included content on diet, exercise, and glucose monitoring, aimed at improving overall diabetes management. Over the course of the study, content was dynamically adapted to each participant's needs, ensuring ongoing support and engagement.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

Link: Adapting a digital health tool to improve diabetes medication adherence among Latino adults

Link: Adapting a Personalized Text Messaging Intervention to Improve Diabetes Medication Adherence in a Spanish-Speaking Population

Centre for Addiction and Mental Health (CAMH): Chat-V Smoking Cessation Adherence Chatbot

The Chat-V Smoking Cessation Adherence Chatbot is a collaboration between the Centre for Addiction and Mental Health (CAMH) and MEMOTEXT. This innovative digital health intervention aims to support individuals using varenicline for smoking cessation. Varenicline is recognized as the most effective smoking cessation medication; however, adherence rates remain low, with over 30% of patients becoming nonadherent within two weeks of initiating treatment (Minian et al., 2023). This significantly compromises treatment effectiveness and cessation outcomes (Minian et al., 2023) The partnership brings together the expertise of Dr. Nadia Minian, Principal Investigator at CAMH.

The program addresses the challenges of medication adherence and smoking cessation, which are often complicated by forgetfulness, lack of motivation, and insufficient support. These challenges contribute to poor treatment outcomes, including early discontinuation of smoking cessation therapies and relapse. The Chat-V Chatbot aims to overcome these barriers by providing personalized, evidence-based support through automated, interactive messaging.

The chatbot was designed to provide medication reminders, motivational support, and progress tracking through a personalized messaging system delivered via SMS and a web portal. Participants were able to customize their medication schedules and receive reminders based on their individual needs. The chatbot also featured goal-setting capabilities and rewards to reinforce positive behavior and improve user engagement.

Over several phases of development, the chatbot was tested through a Wizard of Oz (WoZ) phase, where manual intervention was used to refine interaction flows. This phase was followed by the development of a fully automated prototype, which was tested in a pilot study to assess its feasibility and effectiveness. The chatbot was continuously iterated based on user feedback, ensuring that it met the diverse needs of its participants.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

Link: Cocreation of a conversational agent to help patients adhere to their varenicline treatment: A study protocol

Link: AI Conversational Agent to Improve Varenicline Adherence: Protocol for a Mixed Methods Feasibility Study

Nationwide Children's Hospital: BMT4me Mobile Application

Partnered with Nationwide Children's Hospital in 2024 to enhance and culturally adapt the BMT4me mobile application designed for pediatric hematopoietic stem cell transplant (HSCT) patients and their caregivers. This collaboration specifically targeted medication adherence and symptom management challenges faced by Spanish-speaking caregivers (Benhayoun et al., 2025). The application included tailored medication reminders, symptom tracking, customizable pain scales, improved calendar functionality, and bilingual accessibility. Community Advisory Board (CAB) focus groups guided the transcreation process, ensuring cultural relevance and user-friendliness for Spanish-speaking populations (Benhayoun et al., 2025).

Outcomes: Pilot usability testing demonstrated a high degree of user satisfaction and ease of use, with healthcare providers rating the app at an average SUS score of 84.2 and caregivers rating it at 87.5, surpassing the standard usability threshold of 68%. The ongoing multi-site validation aimed for over 75% enrollment completion among Spanish-speaking caregiver-child dyads, highlighting the app's strong acceptability and potential to significantly improve adherence in this underserved group (Benhayoun et al., 2025).

Link: Transcreating BMT4me: A protocol for adapting an mobile health medication adherence app for Spanish-speaking caregivers in pediatric hematopoietic stem cell transplant

University of New Mexico (UNM): Project MiMA (Medication Adherence & Mindfulness Intervention for OUD)

Partnered with the Addictive Behaviors and Quantitative (ABQ) Research Lab at the University of New Mexico to launch Project MiMA in March 2025. Project MiMA is a digital health intervention aimed at improving medication adherence and providing mindfulness-based therapeutic support for individuals receiving medication treatment for Opioid Use Disorder (OUD). Participants are enrolled through a Qualtrics-based onboarding system managed by the research team.

The intervention utilizes structured SMS messaging that delivers daily medication adherence reminders, including interactive check-ins prompting participants to confirm their medication intake. Additionally, participants receive mindfulness and Acceptance and Commitment Therapy (ACT) messages either two or four times per day for the first six weeks of the 12-week intervention period. Ecological Momentary Assessments (EMAs) assessing cravings and pain interference are delivered multiple times daily via SMS-linked Qualtrics surveys. Weekly surveys further track participant engagement and overall progress.

Participants have the flexibility to manage their message timing through interactive SMS commands. The program is specifically designed to target adherence barriers such as forgetfulness, motivation challenges, and the need for supportive therapeutic interventions.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

Vanderbilt University Medical Center: Vanderbilt FAMS-T1D Add-On

Digital intervention Vanderbilt FAMS-T1D Add-On was launched in April 2023 in partnership with Vanderbilt University Medical Center. This mHealth intervention was designed to enhance diabetes self-management, medication adherence, and social regulation for emerging adults with Type 1 Diabetes (T1D). Participants were recruited through Vanderbilt's REDCap system, with 79% of eligible individuals successfully enrolling (Mayberry et al., 2024). Participants had the option to designate a family member or friend as a Support Person (SP), with two-thirds opting to do so (Mayberry et al., 2024). The intervention provided personalized web notifications and SMS messaging, including tailored diabetes education, goal-specific support, and automated notifications of A1c test results.

Participant engagement with the intervention was high, reflected by an 85% median response rate to automated text messages and a 98% completion rate for coaching sessions (Mayberry et al., 2024). Qualitative feedback from participants indicated that the program was valuable for setting realistic goals, increasing motivation for diabetes management, and enhancing support from family and friends. Preliminary analyses also suggested improvements in diabetes self-efficacy, reduced diabetes distress, and positive trends in A1c levels (Mayberry et al., 2024).

Outcomes**:** Initial feasibility and acceptability data showed strong engagement and satisfaction among participants and their designated support persons. A larger evaluative trial is recommended based on these promising results to further explore effectiveness in improving diabetes self-management and clinical outcomes (Mayberry et al., 2024).

Link: Acceptability and feasibility of FAMS-T1D mHealth intervention to optimize self- and social regulation for emerging adults with type 1 diabetes

Vanderbilt University Medical Center: FAMS-T2D MOSAIC

Digital health intervention Vanderbilt FAMS-T2D MOSAIC was launched in March 2025 in partnership with Vanderbilt University Medical Center to support adults with Type 2 Diabetes (T2D). Participants enrolled via Vanderbilt's REDCap system receive tailored SMS messages focused on medication management, personalized goal setting, diabetes education, and lifestyle modification. The messaging content is dynamically adapted quarterly based on participant responses, with additional automated notifications of A1c results every four months. Participants could opt to involve a Support Person (SP), who received complementary supportive messaging.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

Link: Rationale, design, and recruitment outcomes for the Family/Friend Activation to Motivate Self-care (FAMS) 2.0 randomized controlled trial among adults with type 2 diabetes and their support persons

Vanderbilt University Medical Center: Vanderbilt FAMS-STRIDE

The FAMS-STRIDE program is in partnership with Vanderbilt University Medical Center to support adults with Type 2 Diabetes (T2D) in improving medication adherence, goal setting, and health behaviors through personalized digital messaging. Participants are enrolled via REDCap and randomized into two study arms: FAMS (with optional support person involvement) and PEER Self-Support. Messages include daily medication check-ins, A1c result notifications, goal-specific education, and weekly reflection prompts. Those in the PEER group receive icebreaker messages to encourage informal support. Messaging is tailored to participants' goals and barriers,

with randomized timing to maintain engagement.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

Vanderbilt University Medical Center: PRECIDENTD Texting Program

The PRECIDENTD Texting Program was launched in December 2023 in partnership with Vanderbilt University Medical Center as part of the national PRECIDENTD study—a randomized controlled trial comparing SGLT2 inhibitors and GLP-1 receptor agonists for cardiovascular and kidney protection in people with Type 2 Diabetes (T2D). The texting intervention was adapted from the FAMS-T1D program to support medication adherence and participant retention through structured and interactive SMS messaging. The SMS-based intervention supports medication adherence and participant retention through quarterly check-ins, milestone reminders, and initial follow-up messages after enrollment. Messages are interactive and tailored, with patient responses triggering follow-up by study staff when needed. Message content and tone are co-designed with patient partners to enhance accessibility and engagement.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

McMaster University: DESI-GDM

DESI-GDM is a culturally tailored nutrition intervention developed in partnership with McMaster University to assess whether personalized dietary and lifestyle coaching can improve glycemic outcomes and reduce the risk of gestational diabetes mellitus (GDM) among pregnant South Asian women. The intervention builds on previous qualitative and cohort research in South Asian populations and was co-designed to align with cultural values, food preferences, and health beliefs.

Participants (n=190) are enrolled between 12–18 weeks of gestation and must meet at least two GDM risk criteria, including age >29, BMI >23, poor diet quality, family history of type 2 diabetes, or previous GDM. They are randomized 1:1 to either usual care (paper handouts and weekly motivational SMS) or the DESI intervention, which includes a personalized nutrition plan developed by a culturally congruent dietitian and

delivered by a health coach. The intervention group also receives a Fitbit to track physical activity and behavioral support messaging over 6–16 weeks depending on gestational age at enrollment (Stennett et al., 2023).

Outcomes**:** The primary outcome is the glucose area under the curve (AUC) following a 75 g oral glucose tolerance test (OGTT) at 24–28 weeks' gestation. A secondary outcome includes diagnosis of GDM based on the Born-in-Bradford criteria. The study is powered to detect moderate treatment effects on glycemic response but not GDM incidence directly (Stennett et al., 2023). Final outcome data is pending as the randomized controlled trial is currently underway.

Link: A Culturally Tailored Personalized Nutrition Intervention in South Asian Women at Risk of Gestational Diabetes Mellitus

Link: DESI: Diet and Physical Activity Intervention in S. Asian Women at Risk of Gestational Diabetes – Dr. Russell de Souza at MOVES22

New York University (NYU): 4Me

4Me is a program that provides messaging on healthy behaviours and diet by asking questions, passively tracking FitBit data while also utilizing data inputs from Bitesnap to determine the type of content to send, the right time to send it and the right frequency to send it. The program begins with a 2-week monitoring period to obtain a baseline for the participant and what areas they need support in. The main areas of focus are exercise, diet, sleep, and stress. The specific breakdown of messages will depend on the participants barriers and facilitators, which are determined through surveys conducted by the research team. These include self-efficacy, health literacy, busyness, motivation, and social support. Participants receive a total of 10 per week; 2 messages from each barrier and 1 message from each facilitator. Participants also have access to a website that provides them with visualizations of their progress and resources to help them achieve their goals.

Link: 4Me: Personalized Health solutions leveraging ecological momentary assessment to tailor health promotion and behavior change – Dr. Azizi Seixas and Dr. Alicia Chung at MOVES22

Saint Elizabeth Healthcare (SE Health): Ring of Support

Ring of Support (RoS) is a program which supports both caregivers/care providers and the seniors they are caring for. RoS is a personalized digital engagement system incorporating the use of Amazon Alexa/IVR technology to prolong independence for seniors at home and provide peace of mind while reducing the burden of stress for caregivers. A user experience evaluation was conducted with 50-60 SE health home care clients in the Central East LHIN in Ontario. The objective of this study was to get an understanding of the overall experience, preferences, and interests of seniors and their caregivers. We are currently working with the SE futures team on commercialization of Ring of Support and have conducted numerous market research surveys which have shown strong interest in the product.

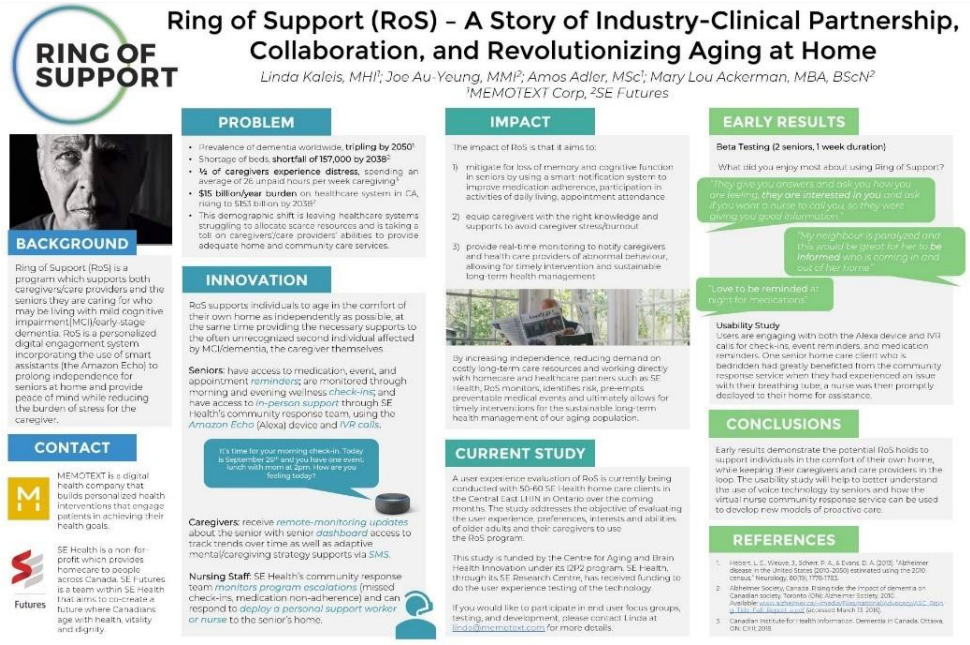


Figure 6. Poster presentation 2019 Canadian Frailty Network Conference, Canada

Outcomes: 100% of the users communicated using IVR, Alexa, and SMS, with IVR being the most popular modality both for seniors and caregivers. 87% of users reported high satisfaction with the services and caregivers reacted extremely positively to being notified of updates about their loved ones. We were able to evaluate user preferences for modalities, interests, and abilities of older adults. We were also able to provide the technical and operational feasibility of the solution after having done change management with the virtual nurse team and implement it within a clinical environment.

Canadian Pulmonary Fibrosis Foundation: Inspiration Patient Assistance Program

The educational program titled “Inspiration Patient Assistance Program” was a 2014 partnership with the Canadian Pulmonary Fibrosis Foundation. This initiative was an educational program for patients undergoing Esbriet (pirfenidone) treatment for idiopathic pulmonary fibrosis (IPF). Eligible participants were newly or previously diagnosed with IPF and prescribed Esbriet for treatment. Enrollment was open to anyone on the medication, however, the disease is typically found in males over the age of 50. In this program, participants were given the choice of receiving up to three messages per day. Message content varied from education, motivation, and healthy lifestyle and was offered via IVR, SMS and Email in both English and French.

Outcomes: The outcomes of this program are confidential and proprietary for ESBRIET®

Johns Hopkins University (JHU): ADRS

In collaboration with Johns Hopkins University, a medication reminder program was created in 2014 for post-operative glaucoma patients in the JHU Hospital system. The program was titled “Impact of Automated Dosing Reminders on Medication Adherence Using Microsoft HealthVault” (ADRS). Recruitment and enrollment were led by the clinicians, and enrollment was completed online. For this intervention, participants received two segmented reminder messages per day via SMS or IVR (Boland, Chang, & Frazier, 2014) . a prospective cohort study of medication adherence, followed by a randomized intervention for those found to be nonadherent, of individuals recruited from a university-based glaucoma subspecialty clinic. A total of 491 participants were enrolled in the initial assessment of adherence. Of those, 70 were nonadherent with their medications after 3 months of electronic monitoring and randomized to intervention and control groups. A personal health record (HealthVault) was used to store the list of patient medications and reminder preferences. On the basis of those data, participants randomized to the intervention received daily messages, either text or voice, reminding them to take their medication. Participants randomized to the control group received usual care.

Outcomes: From this intervention, a 31% increase was seen in adherence to post-op glaucoma therapy versus a match control group. Results are published in JAMA Ophthalmology (Boland, Chang, & Frazier, 2014) .

Link: Automated Telecommunication-Based Reminders and Adherence With Once-Daily Glaucoma Medication Dosing

PerformRX: HealthNHand

Developed by PerformRx, in conjunction with MEMOTEXT, a digital health intervention called HealthNHand launched in 2014 as an asthma medication adherence program (Figure 2). For this intervention, eligible participants were identified based on previous claims filled for a controller medication in the 6 months prior to the launch with no prior claims for medications used to treat COPD only. Recruiting was completed by direct outreach via phone or mail and participants self-enrolled through a web portal or by calling into the PerformRx call centre. The intervention itself was a tailored medication reminder, education, and support program where participants self-reported adherence. Participants received up to four messages per day based on their controller medication requirements. Messages included reminders, education, live air quality index forecasts from airnow.gov, asthma triggers, motivation, and support for a healthy lifestyle. Refill calls were determined based on the date their last claim was filled. The content was delivered via IVR, SMS, and email and segmented based on participant survey responses.

Outcomes: Results of this intervention showed a conversion of 40% of non-adherers (participants that take their medications less than half the time) into moderate or optimal adherers. Results were presented by poster at Stanford Medicine X Conference in Palo Alto California and by presentation at the 2015 Vendor Education Series for the Association for Community Affiliated Plans.

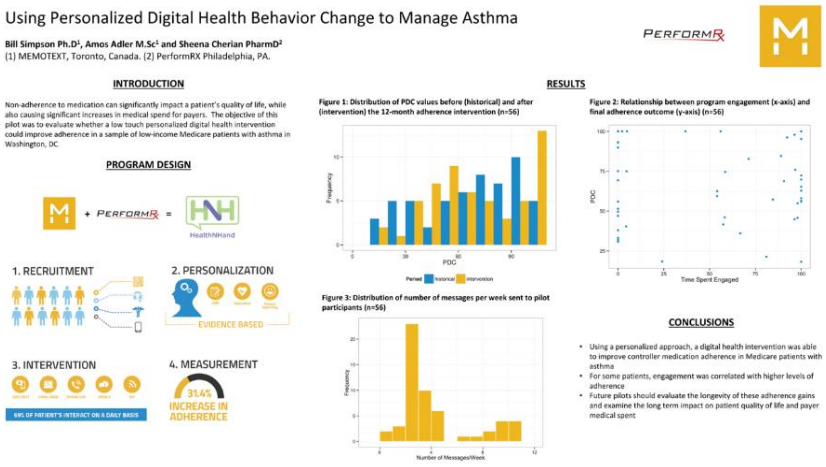


Figure 7. The PerformRX poster presented at the Stanford Medicine X Conference 2015.

Nova Southeastern University (NSU): ReMIND

In partnership with Dr. Kevin Clauson at NSU, a Diabetes Medication Reminder Program called ReMIND was established in 2012. ReMIND was a parallel group, open-label, randomized, controlled clinical trial study to use SMS messages to improve medication adherence in patients with Type II Diabetes. Recruitment was done by the clinical trial leader and enrollment was completed by the clinician through a web portal created by MEMOTEXT. Participants received one SMS message per day at 9:00 am.

Link: What Happens When You Combine The Participatory Design Research Approach And A Patient Engagement Company For A Mhealth Study?

Humana: Humana Health Connect

Humana Health Connect is a text-based messaging program designed to guide plan members with Diabetes towards the use of statins using digital solutions to promote patient engagement and drive behavior change. All members eligible were segmented into cohorts based on eligibility status for SUPD, and their Diabetes Complications Severity Index (DCSI) and Charleston Comorbidity Index (CCI) scores. A segmentation survey was deployed upon enrollment to personalize the type of educational and supportive content that would be delivered to the plan member based on their health literacy levels, beliefs about medication, and self-efficacy. Phase 1.0 was initiated May 2019 and consisted of recruitment of ~6000 members via email and IVR channels. Phase

1.5 in Nov 2019 followed up previous recruitment efforts with re-targeting text messages and email campaigns

Outcomes: Achieved program objectives by increasing statin users by 33% and showed significant improvements in knowledge and understanding of reasoning for statin adherence through educational messaging.

Novartis: Gilenya Program

For Novartis, MEMOTEXT acts as an SMS aggregator for their Gilenya program targeting multiple sclerosis. For this program, Novartis created the message content and MEMOTEXT handled the SMS communication. Novartis led the recruitment process and completed the enrollment. This program is offered in English and French.

Boots UK: Type 2 Diabetes Medication Reminder Program

A medication reminder program with an education component was created in 2012 with Boots drugstores in the UK for patients with Type 2 Diabetes. Recruitment was led by Boots UK pharmacists who would complete a paper form at the pharmacy. This form was sent to call center who then filled out an online application. Participants could choose their own frequency of messages to be either daily, weekly or bi-weekly. Messages included reminders, education, and motivational material related to medication, disease, lifestyle, or diet. This program was offered via SMS or IVR. The program segmented patients and content based on health attitudes, beliefs, and subsequent self-management and adherence behaviours. Re-segmentation occurred after six months to improve content targeting.

Outcomes: Greatest improvements in medication adherence were seen in those with the lowest adherence at program start based on historical Medication Possession Ratio (MPR). Results showed that 80-85% of patients demonstrated improved knowledge of diabetes management, 83% showed improved knowledge of diabetes medication, and a decrease from 50% to 25% of clients that missed a dose one or more times a week was seen. Additionally, patients filled their prescriptions for METFORMIN an average of 2.3 days earlier than in prior refill claims history.

ALLERGAN: Treatment Support Program

A Treatment Support Program with Allergan was created for Chronic Dry Eye Disease patients prescribed Restasis in 2016. Allergan led the recruitment process by administering brochures to doctors prescribing the target medication. Doctors then provided their patients with the brochure and a copay for enrollment card. Patients could enroll via TEXT2ENROLL or through an external web portal created by MEMOTEXT.

This medication reminder and education program recorded self-reported adherence in participants who received two messages per day either via IVR, SMS, or Email. The first message was education or refill focused while the second message was a medication reminder automatically scheduled 12 hours after the first message to accommodate medication requirements. Content delivered was segmented based on participant responses to survey questions. The pilot was initially limited to residents of Ontario but was later expanded to all of Canada.

Outcomes: Outcomes of this intervention include a significant reduction in the typical adherence drop off rate after the first 6 months. Specific KPIs are confidential.

Massachusetts General Hospital (MGH): Simple Online Family Intervention for ADHD (SOFIA)

In collaboration with MGH a medication adherence program was created in 2017 called SOFIA. SOFIA is a system designed for the parents of children ages 6-12 who are prescribed stimulant medications to treat ADHD. For a feasibility study, parents were recruited through a Partners Healthcare EMR to identify children 6-12 taking stimulant medication for ADHD. The healthcare providers were then contacted by MGH administrators inviting them to participate in the program. Participants received a set number of messages per week and educational content was segmented and delivered to participants based on their responses to trigger questions asked periodically. Reminders for prescription renewals were sent based on the 30-day medication cycle and were based on a refill validation process. Content included reminders, tips, facts, and 2-way (responsive) SMS messages in the form of myth debunking questions.

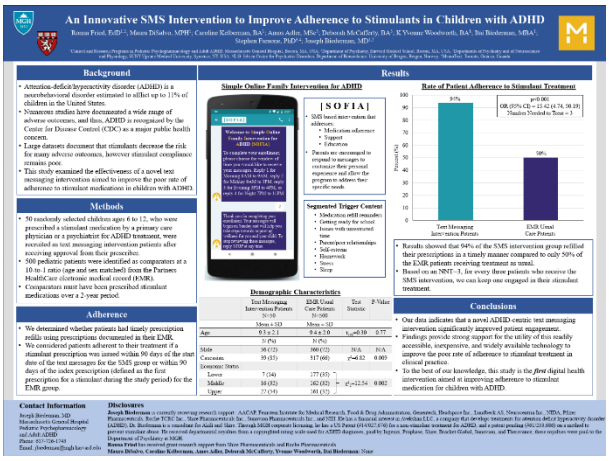


Figure 8. SOFIA Poster Presentation presented at the APSARD 2020 annual meeting

Outcomes: 85% of SMS intervention patients refilled their prescriptions in a timely manner compared with 62% of patients receiving treatment as usual.

Link: An innovative SMS intervention to improve adherence to stimulants in children with ADHD

Link: American Society of PsychoPharmacology SOFIA Presentation 2020

Green Shield Canada (GSC): Stick2it

The Stick2it intervention (2015) was targeted at plan members with less than 6-months of historical claims for specific Cholesterol and Hypertension medications. Recruitment was led by GSC and involved two recruitment campaigns. Members were mailed postcards and completed via IVR and a web portal. This intervention was an adaptive education support program which involved self-reported adherence and participants receiving up to three messages per day based on personal preference. The message content included reminders, education, motivation and healthy lifestyle which includes heart-healthy recipes. Content delivered in both English and French was segmented at intake and subsequent weekly intervals based on participant survey responses through IVR, SMS and Email.

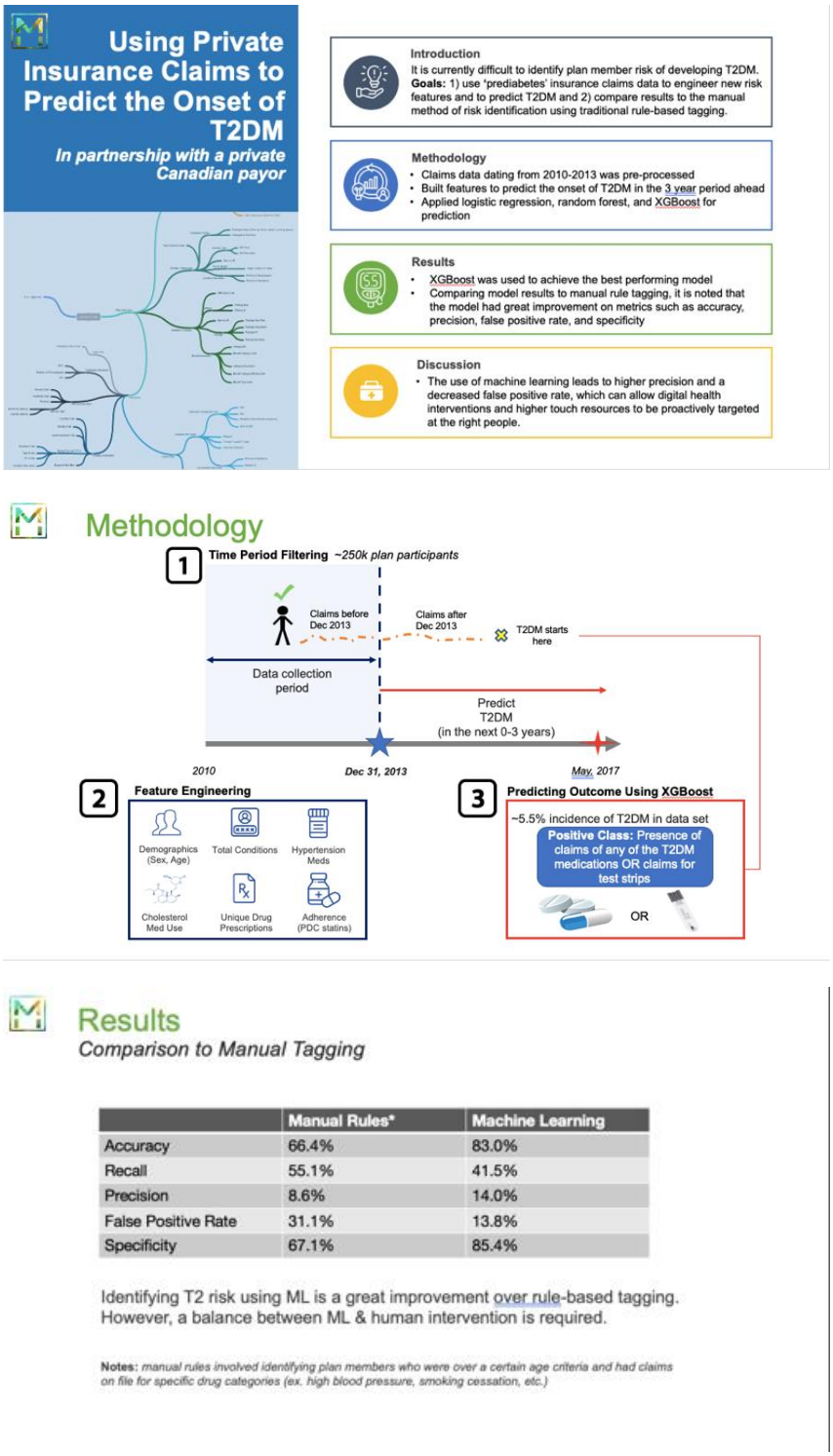
Outcomes: The Stick2It program had a retention rate of 91.1% (n=434) of participants and over a period of ten months. The program increased refill persistence by 37.3% based on claims data compared to a control group. A decreased medication dropout rate also proved significant.

Link: The Importance of Sticking To it: Non-Adherence To Prescription Medication

Green Shield Canada: Dot the Bot: Using Private Insurance Claims to Predict the Onset of T2DM

A 2-year AI collaboration focusing on the Type 2 Diabetes (T2DM) population with one of Canada's leading health benefits providers led to the creation of multiple predictive models to address specific clinical business needs such as identifying: high cost plan members, drug switching in early stage treatment, and disease onset. By focusing on prevention and adherence to lower cost monotherapy medications as well as addressing the factors that increase the likelihood of cost escalations associated with T2DM, overall expenditures can be reduced. Using this knowledge and health behaviour change methodologies, a digital health intervention for plan members at risk of developing T2DM (assumed prediabetes population) and plan members with T2DM was developed to keep members at low-risk and low cost. Members who had certain prediabetes risk factors were screened using the CANRISK questionnaire, then onboarded to the prediabetes stream of the digital intervention. On the other hand, members who were already claiming T2DM medications were enrolled into the T2DM stream to assess, improve, and sustain adherence to their medications. In the end, a digital health navigator care bot engaged plan members for over 6 months, connecting to the health benefits provider's service offerings and sending them daily support, educational content, health trivia, and medication reminder messaging.

Outcomes: Findings revealed that staying adherent to high-cost T2DM medications, as calculated by the proportion of days covered (PDC) metric, leads to higher associated T2DM costs in the lens of the health benefits provider. In other words, it costs to stay healthy, proving that one of the most effective ways to avoid diabetic costs from the Canadian private insurer perspective is to prevent or delay members from developing diabetes in the first place.



	Manual Rules*	Machine Learning
Accuracy	66.4%	83.0%
Recall	55.1%	41.5%
Precision	8.6%	14.0%
False Positive Rate	31.1%	13.8%
Specificity	67.1%	85.4%

Figure 9. 2020 Pharmacy Quality Alliance (PQA) Annual Conference Poster Presentation

Genentech: MyCFCoach

Genentech partnered with MEMOTEXT to create MyCFCoach in 2015 for adults with Cystic Fibrosis and who were prescribed Pulmozyme as a supplement to their existing therapies. Genentech led the recruitment by providing clients with resources and advertising on social media. Enrollment for this reminder program was completed through a web portal. Participants self-reported adherence and received two messages per day. Messages included reminders, education, support, motivation and healthy lifestyle content which was segmented based on participant responses to survey questions. The content was delivered via SMS and email.

Outcomes: This intervention showed a high degree of patient satisfaction with the support program and above 90% retention rates.

Health Literacy & Education Programs

Nationwide Children's Hospital: CVD Dashboard Engagement Tool

The CVD Dashboard Engagement Tool is developed in partnership with Nationwide Children's Hospital to support cardiovascular disease (CVD) prevention among young adults aged 18–49. Designed to be seamlessly integrated into the clinic workflow, the tool guides patients through a pre-visit digital lifestyle and risk assessment survey using a clinic tablet. Clinic staff then collect vitals, review survey responses, and input the data into the dashboard. The tool generates dynamic, personalized risk visualizations that healthcare providers use during the medical visit to facilitate shared decision-making and behavior change discussions.

Clinicians and patients may toggle key health metrics—like blood pressure, cholesterol, and smoking status—to visually demonstrate how lifestyle changes can lower a patient's CVD risk. The dashboard also includes tailored educational prompts, motivational scripts, and a printable summary report for patients to take home. After the visit, patients receive secure login credentials to access their personalized dashboard and track their progress over time.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

University of British Columbia (UBC): SmartMom

In a 2017 collaboration with UBC, the effects of a program titled SmartMom https://www.smartmomcanada.ca/ were studied in pregnant women in the northern health authority in British Columbia. This program took a specific focus on aboriginal women living in rural residences who were at a socio-economic disadvantage. UBC led the recruitment process for this program and it was promoted through websites, posters, and takeaway marketing material such as magnets. Enrollment for this program was completed by the participant through a web portal or through TEXT2Enroll by texting a 5 digit short-code to sign up for the program. For this study, participants received three weekly messages scheduled based on their gestational week. Content included educational and supportive material with links to helpful website resources. In addition, there were six optional supplementary streams with additional educational content that a participant could choose to sign up for. Supplemental messages were delivered five minutes after their regular scheduled messages. The content for this project was created by the UBC and delivered by web portal or SMS. For participants who do not have access to a phone, they could view the messages from any computer (Munro, et al., 2017) . SmartMom has now moved to co-commercialization.

Link: SmartMom Text Messaging for Prenatal Education: A Qualitative Focus Group Study to Explore Canadian Women's Perceptions

Prenatal education text messaging service launches throughout Northern B.C.

SmartMom/SmartParent: Teaching by texting: Pre/Post Natal Support and Education – Dr. Patti Janssen at MOVES22

Expectant Parents' Preferences for Teaching by Texting: Development and Usability Study of SmartMom

University of British Columbia (UBC): SmartParent 1.0

SmartParent was developed (Nov 2020) as a follow-up to the SmartMom program. SmartParent is Canada's first parent education program that provides trustworthy educational text messages to help guide parents through their baby's first year of life. The messaging content received is tailored to each baby's age and stage of development. Messaging includes evidence-based tips and links to support the transition to parenthood and the baby's growth and development. SmartParent is led by academic researchers

from the University of British Columbia in collaboration with Optimal Birth BC. SmartParent has been actively in use since 2021 and has started to scale with several BC provincial health authorities: Fraser Health, First Nations Health Authority, Northern Health, Interior Health, and Vancouver Coastal Health.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

Link: SmartParent Parenting Education by Text SmartParentCanada.ca

University of British Columbia (UBC): SmartParent 2.0

SmartParent 2.0 is a national perinatal and parenting support program developed in partnership with the University of British Columbia. It merges and enhances the original SmartMom and SmartParent initiatives to deliver stage-based, evidence-informed text messages to parents from early pregnancy through the first year postpartum. Participants enroll via SMS, web, or integrated research tools and receive personalized content tied to their pregnancy or infant's developmental milestones.

The program includes optional message streams, a user portal, one-time messaging features, and survey tools. It is PHIPA-compliant and designed for integration with public health and research settings. SmartParent 2.0 also supports an embedded randomized controlled trial (RCT) as part of UBC's broader SmartMom evaluation.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

University of British Columbia (UBC): Two-Eyed Seeing for Parents

Two-Eyed Seeing for Parents is a culturally grounded, Elder-led parenting resource app co-developed by the University of British Columbia School of Nursing in collaboration with Syilx Elders and community partners. Guided by the Indigenous concept of "Two-Eyed Seeing," the program integrates Syilx traditional knowledge, Nsyilxcən language, and Western parenting information to support culturally safe and accessible early childhood development for families with children aged 0–12 months.

The app is organized into three developmental stages—0–4 months, 4–8 months, and 8–12 months—and presents content in multiple formats, including text, video, audio, and imagery. Topics span emotional, physical, spiritual, and mental dimensions of parenting and were curated and approved by Syilx Elders. The tool also includes links to First Nations and provincial parenting resources, offering holistic support to families.

Designed for full offline functionality, the app addresses rural access barriers. Its development was supported by SSHRC funding and guided by OCAP® principles to ensure Indigenous ownership, control, access, and possession of data and content.

Outcomes: This program is currently ongoing, with outcomes and evaluation results forthcoming.

Link: MEMOTEXT, The University of British Columbia developing Indigenous Elder-led app to support parents' Two-Eyed Seeing for parenting

Broward Regional Health Planning Council (BRHPC): Wellness Support Program

A wellness support program was developed in collaboration with BRHPC. For this program, eligible participants were already enrolled in a wellness program with BRHPC and MEMOTEXT was provided with client contact information. Participants received one SMS message per week focused on living a healthy lifestyle. This program was carried out from April to July of 2017 and concluded successfully.

St. Michael's Hospital: Flu Shot in Pregnancy

Alongside St. Michaels Hospital a randomized controlled trial was completed in 2017 to evaluate if text message reminders increase the likelihood of receiving the flu shot among pregnant women Eligible participants included pregnant women who saw their OBGyn for a prenatal visit during flu season with no restriction on age. Recruitment occurred onsite at the hospital by a clinician via a web portal created by MEMOTEXT. During this educational program, participants received one message in a predetermined sequence containing information about pregnancy and flu shot safety. The content and schedule were provided by the St. Michael's Hospital (Yudin et al., 2017).

Outcomes: Weekly text messages reinforcing the recommendation for and safety of the

influenza vaccine in pregnancy did not increase the likelihood of receiving the vaccine among pregnant women (Yudin et al., 2017).

Quality Improvement Initiatives

MEMOTEXT: Balanced Adherence Metric

While the standard Proportion of Days Covered (PDC) metric quantifies adherence in patients with complex regimens, it may not accurately quantify other important dimensions of adherence. MEMOTEXT set out to combine PDC with Compliance Rate (CR), Delay to Refill, and Medication Persistence into a single, simple to interpret, metric which. The Balanced Adherence Metric (BAM) for claims data was created. This study showed that a mathematical combination of currently available adherence metrics may be more beneficial than either metric alone in objectively assessing adherence. Results were presented via poster (Figure 4) at the 2016 Pharmacy Quality Alliance (PQA) Annual Meeting & Innovation Forum in Arlington, Virginia.

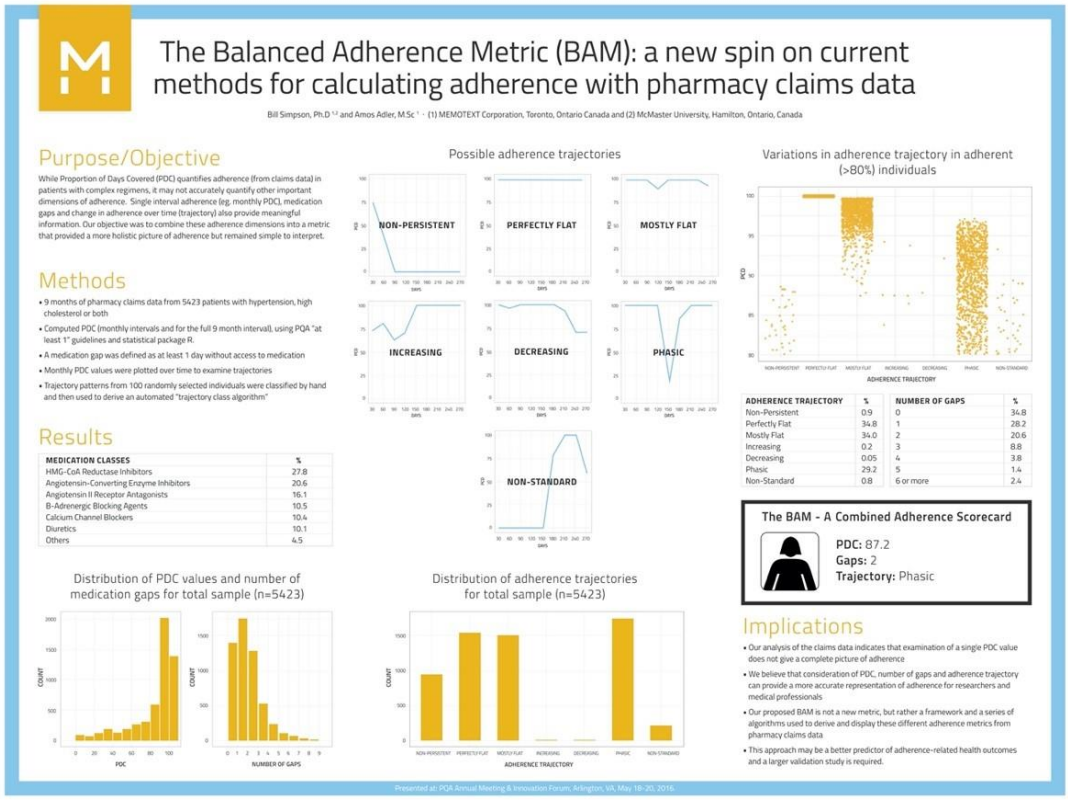


Figure 10. BAM 2016 poster presented at the Pharmacy Quality Alliance Annual Meeting & innovation Forum in Arlington, Virginia.

Conclusion

Since 2012, MEMOTEXT has consistently demonstrated clinical, academic, and commercial validation of digital health solutions that improve medication adherence, enhance care coordination, and support sophisticated, data-driven decision-making. With over 70 digital health interventions—ranging from educational and adherence-based programs to fully regulated digital therapeutics (DTx)—MEMOTEXT continues to establish itself as a leader in personalized, scalable behavior change.

These interventions span diverse health domains, populations, and care settings, including mental health, maternal and perinatal health, chronic disease management, post-acute transition care, and culturally responsive community programs. Each intervention integrates behavioral science principles, advanced machine learning, and generative AI, and is co-designed alongside patients, clinicians, and partners. Real-world health data is leveraged to deliver highly personalized engagements aligned with individual needs, preferences, and contexts—whether technological, cultural, clinical, or socioeconomic.

By continuously evolving its modular, evidence-based digital infrastructure, MEMOTEXT addresses critical healthcare system challenges, including health equity, accessibility, system burden reduction, and population-level analytics. With expertise in navigating complex regulatory frameworks, ethical standards, and interoperability requirements, MEMOTEXT remains uniquely positioned as a trusted partner in achieving meaningful, measurable impact across institutional, commercial, and community-based contexts in digital health.

References

Adler, Amos. (2008). *The Real Cost of Patient Non-Adherence*. Retrieved from Reuters Events: https://www.reutersevents.com/pharma/commercial/real-cost-patient-non-adherence

A4i Executive Summary. (2022). *A4i Evidence and Data*. MEMOTEXT + CAMH. Retrieved from https://a4i.me/

Benhayoun, A., Wang, M., Beauchemin, M., Sezgin, E., & Skeens, M. A. (2025). Transcreating BMT4me: A protocol for adapting an mobile health medication adherence app for Spanish-speaking caregivers in pediatric hematopoietic stem cell transplant. Digital health, 11, 20552076241297218. https://doi.org/10.1177/20552076241297218

Boland, M., Chang, D., & Frazier, T. (2014). Automated Telecommunication-Based Reminders and Adherence With Once-Daily Glaucoma Medication Dosing. *JAMA Opthalmology, 132*(7). doi:10.1001/jamaophthalmol.2014.857

Bronsburg, S., & Zucker, S. (2016). Text messaging's impact on an evidence based medicine tobacco cessation program. *Online Journal of Applied Knowledge Management, 4*(1), 117-132. doi:10.36965/OJAKM.2016.4(1)117-132

Clauson, K., Lewis, D., & Glants, B. (2012, September 30). *What Happens When You Combine The Participatory Design Research Approach And A Patient Engagement Company For A Mhealth Study?* Retrieved from Stanford Medicine: https://medicinex.stanford.edu/clauson-abstract/

Das, R., Skvarla, M., Kelley, A., Lalani, H., Loh, E., & Kim, H. (2023). Evaluating the Mental Health of Physician-Trainees Using an SMS Text Message–Based Assessment Tool: Longitudinal Pilot Study. *JMIR Formative Research, 7*(1), e45102. https://doi.org/10.2196/45102

Fried, R., DiSalvo, M., & Kelberman, C. (2020). An innovative SMS intervention to improve adherence to stimulants in children with ADHD: Preliminary findings. *Journal of Psychopharmacology, 34*(8). doi:doi.org/10.1177/0269881120908014

Kassam, I., Kemp, J., Pape, C., Jones, J., Tsuda, M., Khokhar, R., & Strudwick, G. (2023). *Implementation of a digital health program to support clinician mental health* [Poster]. Campbell Family Mental Health Research Institute, CAMH. AMIA Annual Symposium 2023.

Kidd, S. A., D'Arcey, J., Tackaberry-Giddens, L., Asuncion, T.-R., Agrawal, S., Chen, S., Wang, W., McKenzie, K., Zhou, W., Luo, S., Feldcamp, L., Kaleis, L., Zedan, S., Foussias, G., Kozloff, N., & Voineskos, A. (2025). App for Independence: A feasibility randomized controlled trial of a digital health tool for schizophrenia spectrum disorders. *Schizophrenia Research, 275*, 52–61. https://doi.org/10.1016/j.schres.2024.11.011

Kidd, S., Feldcamp, L., Adler, A., Kaleis, L., Wang, W., Vichnevetski, K. M., & Voineskos, A. (2019). Feasibility and outcomes of a multi-function mobile health approach for the schizophrenia spectrum: App4Independence (A4i). *PLOS One, 14*(7). doi:https://doi.org/10.1371/journal.pone.0219491

Kidd, S., Kwame, M., Wang, W., Agrawal, S., & Voineskos, A. (2021). Examining a Digital Health Approach for Advancing Schizophrenia Illness Self-Management and Provider Engagement: Protocol for a Feasibility Trial. *JMIR Research Protocols, 10*(1). doi:https://doi.org/10.2196/24736

Kidd, S. A., Sequeira, L., D'Arcey, J., Zhou, W., Luo, S., & Kassam, I. (2024). Development and feasibility evaluation of a digital mental health platform for people with opioid use disorder: A4i-O. Journal of Substance Abuse Treatment, 161, 108966. https://doi.org/10.1016/j.jsat.2024.108966

Mayberry, L. S., Wiebe, D. J., Parks, M., Campbell, M. S., Beam, A. B., & Berg, C. A. (2024). Acceptability and feasibility of FAMS-T1D mHealth intervention to optimize self- and social regulation for emerging adults with type 1 diabetes. Pilot and feasibility studies, 10(1), 68. https://doi.org/10.1186/s40814-024-01497-1

McKesson Canada. (n.d.). *Case Study: Inviva Rises To The Pandemic Challenge*. Retrieved from McKesson Canada: https://www.memotext.com/wp-content/uploads/2022/03/McKesson_Article7_INVIVA-Pandemic_Case_Study_V4final.pdf

Minian, N., Veldhuizen, S., Zawertailo, L., Ravindran, A., Pritchard, R., & Ziegelstein, R. C. (2023). Cocreation of a conversational agent to help patients adhere to their varenicline treatment. Digital Health, 9. https://doi.org/10.1177/20552076231182807

Mititello, L., Melnyk, B., Hekler, E., Small, L., & Jacobson, D. (2016). Automated Behavioral Text Messaging and Face-to-Face Intervention for Parents of Overweight or Obese Preschool Children: Results From a Pilot Study. *JMIR Mhealth Uhealth, 4*(1). doi:10.2196/mhealth.4398

Murray, J. B., Sharp, A., Munro, S., & Janssen, P. A. (2023). Expectant Parents' Preferences for Teaching by Texting: Development and Usability Study of SmartMom. JMIR formative research, 7, e44661. https://doi.org/10.2196/44661

Munro, S., Hui, A., Salmons, V., Solomon, C., Gemmell, E., Torabi, N., & Janssen, P. (2017). SmartMom Text Messaging for Prenatal Education: A Qualitative Focus Group Study to Explore Canadian Women's Perceptions. *JMIR Public Health and Surveillance, 3*(1). doi:10.2196/publichealth.6949

Nelson, L., Mayberry, L., Wallston, K., Kripalani, S., Bergner, E., & Osborn, C. (2016). Development and Usability of REACH: A Tailored Theory-Based Text Messaging Intervention for Disadvantaged Adults With Type 2 Diabetes. *JMIR Human Factors, 3*(2). doi:https://doi.org/10.2196/humanfactors.6029

Northern Health Authority. (n.d.). *Prenatal Education Text Messaging Service Launches Throughout Northern B.C.* Retrieved from The University of British Columbia School of Population and Public Health: https://www.spph.ubc.ca/prenatal-education-text-messaging-service-launches-throughout-northern-b-c/

Risling, T., Carlberg, C., Kassam, I., Moss, T., Janssen, P., Iduye, S., & Strudwick, G. (2021). Supporting population mental health and wellness during the COVID-19 pandemic in Canada: protocol for a sequential mixed-method study. *11*(11). doi:10.1136/bmjopen-2021-052259

Riverside University Health System – Behavioral Health. (2024). *A4i Pilot Implementation: Final Evaluation Report*. Help@Hand Innovation Project. MEMOTEXT & CAMH.

Sanmugalingham, G., Mok, E., Cafazzo, J. A., Desveaux, L., Brazeau, A. S., Booth, G. L., Greenberg, M., Kichler, J., Rac, V. E., Austin, P., Goldbloom, E., Henderson, M., Landry, A., Zenlea, I., Taylor, M., Nakhla, M., & Shulman, R. (2023). Text message-based intervention, Keeping in Touch (KiT), to support youth as they transition to adult type 1 diabetes care: a protocol for a multisite randomised controlled superiority trial. *BMJ open*, *13*(5), e071396. https://doi.org/10.1136/bmjopen-2022-071396

Sequeira, L., Kassam, I., D'Arcey, J., Zhou, W., Junaid, S., Luo, S., Boparai, N., Tackaberry-Giddens, L., & Kidd, S. (2023). Exploring contextual factors impacting the implementation of and engagement with a digital platform supporting psychosis recovery: A brief report. *Translational Behavioral Medicine, 13*(12), 896–902. https://doi.org/10.1093/tbm/ibad070

Skeens, M., Sezgin, E., Stevens, J., Landier, W., Pai, A., & Gerhardt, C. (2022). An mHealth App to Promote Adherence to Immunosuppressant Medication and Track Symptoms in Children After Hematopoietic Stem Cell Transplant: Protocol for a Mixed Methods Usability Study. JMIR research protocols, 11(7), e39098. https://doi.org/10.2196/39098

Stennett, R. N., Adamo, K. B., Anand, S. S., et al. (2023). A culturally tailored personalised nutrition intervention in South Asian women at risk of Gestational Diabetes Mellitus (DESI-GDM): a randomised controlled trial protocol. *BMJ Open, 13*, e072353. https://doi.org/10.1136/bmjopen-2023-072353

Strudwick, G., Risling, T., & Kassam, I. (2022). Lessons learned developing and deploying a provincial virtual mental health support during the COVID-19 pandemic. *Healthc Manage Forum, 35*(4). doi:10.1177/08404704221092691

Strudwick, G., Sockalingam, S., Kassam, I., Sequeira, L., Bonato, S., Youssef, A., Mehta, R., Green, N., & Impey, D. (2023). Digital intervention to support medication adherence among solid organ transplant recipients: Protocol for a systematic review. *JMIR Research Protocols, 12*(1), e53556. https://doi.org/10.2196/53556

Willows, D., Hill, F., Simpson, B., & Adler, A. (n.d.). *The Importance of Sticking To it: Non-Adherence To Prescription Medication*. Retrieved from Green Shield Canada: https://assets.greenshield.ca/greenshield/About%20GSC/newsroom/2016/MT_GSC_Stick2It_Whitepaper_Final.pdf