Answering the Call: How AI Reception Could Reduce Burnout and Transform Access in Primary Care

amplify care

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Background

Primary care clinicians continue to face rising administrative workloads, clinician shortages and growing patient demand, leading to longer wait times, staffing strain and increased burnout (1). Traditional phone-based access systems often leave patients on hold or sent to voicemail, limiting timely access to care.

AI-reception and triage solutions have emerged as a promising strategy to address these gaps by automating routine inquiries, improving responsiveness and supporting administrative teams (2). These tools can reduce time spent managing high call volumes, ensuring patients receive timely support while allowing clinic staff to focus on complex cases and in-person care. Early evidence from AI-enabled voice agents suggests the potential for improving access, reducing administrative burden, and enhancing workflow efficiency – key priorities for strengthening primary care capacity (3).

Objectives

This Canada Health Infoway funded project aims to:
- Onboard 40 clinicians to the AI-Reception tool, ensuring successful implementation and integration into existing workflows.
- Evaluate the role of an AI-reception tool improving access to primary care
- Assess the impact of an AI-reception tool on administrative workload, workflow efficiency and patient experience
- Inform future scale-up of AI-enabled communication tools across primary care settings

Amplify Care

Amplify Care is a not-for-profit organization, founded as the eHealth Centre of Excellence in 2014, and was established with the goal of deploying technology to enable improved clinical workflows and enhance patient outcomes, empowering clinicians with tools that reduce administrative burden and improve patient care delivery. This project with Strello aligns with these priorities by furthering our commitment to implementing and evaluating technology that may improve workflow efficiency and support high-quality care, while contributing to broader national efforts to advance digital health innovation and AI-enabled primary care solutions.

Project: Strello

Through the Connected Care Innovation Grant from Canada Health Infoway, Amplify Care has the chance to facilitate and evaluate a project for clinics to try Strello. Strello is an AI-powered voice agent designed specifically for healthcare environments. It can handle incoming patient calls, book and modify appointments, answer routine questions, and support basic triage, all using natural language interaction. The platform is developed by a physician-led team and validated with real patients, ensuring accuracy, safety, and clinical relevance. It integrates with commonly used EMRs and maintains full PHIPA/PIPEDA compliance.

Strello can manage unlimited simultaneous calls with no hold times and save administrative staff several hours per day. The voice agent can book, cancel, reschedule and confirm appointments, as well as answer questions and provide information, significantly reducing bottlenecks in clinic communication workflows. Policy implications for AI Reception include the need for digital infrastructure readiness, ethical oversight of AI-enabled patient communication and support for broader adoption to strengthen primary care access.

Methods

Early Implementation
Initial Strello deployments across early adopter clinics prior to the current project provide operational insights into call types, automation rates, adoption patterns, and staff workflow changes. These early evaluations used operational metrics generated by Strello and feedback from clinics to understand workflow impacts and automation capacity.

Current Evaluation
This next phase expands the evaluation in partnership with Canada Health Infoway, onboarding additional clinicians in Ontario. The evaluation uses a mixed-methods design aligned with the Quintuple Aim (4), including:
- **Operational data** from Strello (call metrics, automation success and call triage).
- **Clinician surveys** exploring workload, satisfaction, and workflow impact among physicians and clinic staff.
- **Patient engagement** to understand usability, communication quality and experience.
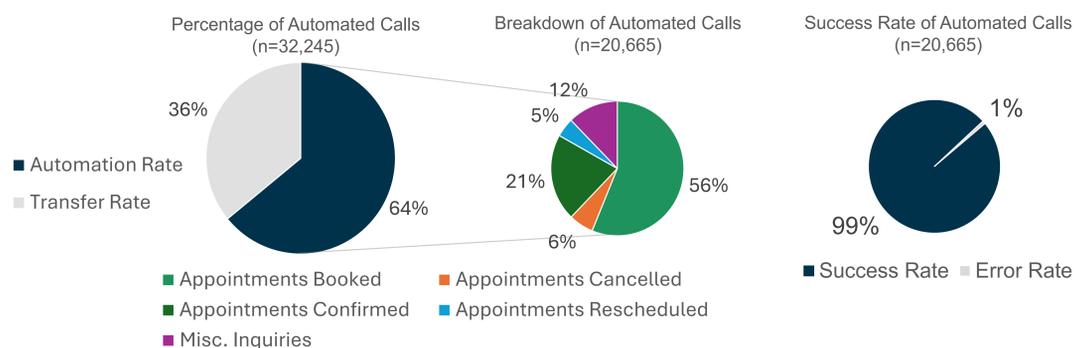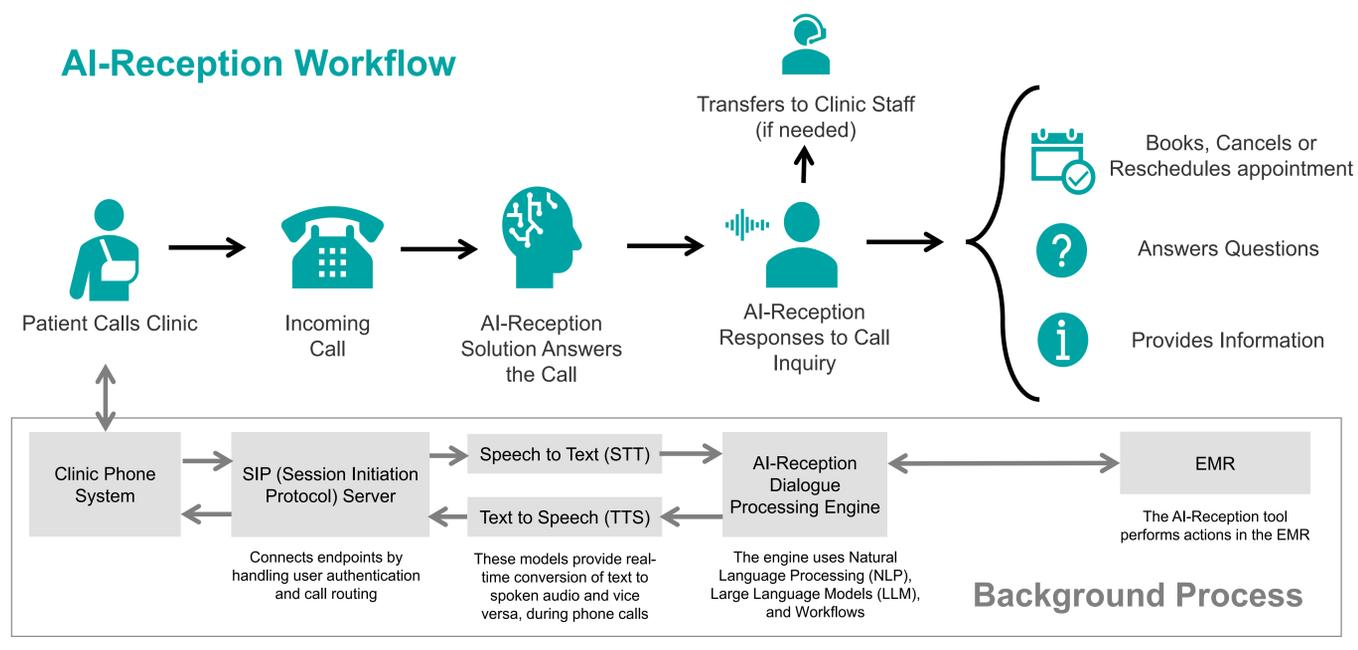
This approach builds on early findings while generating scalable evidence on the effectiveness and feasibility of AI-reception technologies in primary care.

Results: Early Implementation

Early implementation across 7 clinics and 41 doctors resulted in a total of 37,631 calls received between December 2025 and February 2026. Of these calls, 32,245 (85.7%) were classified as calls that qualified for automation (i.e., calls lasting longer than 30 seconds). Overall, automation supported 64.1% (n=20,665) of all call-related tasks, while 35.9% (n=11,580) were transferred to front desk staff. Of these transfers 281 were due to system related errors, resulting in a 99.3% success rate with the automated calls.

The figure below depicts the distribution of these automated calls (n=20,665) by task type, showing that the system facilitated 11,610 (56%) appointment bookings, 1,240 (6%) appointment cancellations, 949 (5%) rescheduled appointments, 4,331 (21%) appointment confirmations, and 2,535 (12%) miscellaneous queries (i.e., clinic related questions or hours of operation).

AI-Reception Workflow

Patient Calls Clinic → Incoming Call → AI-Reception Solution Answers the Call → AI-Reception Responses to Call Inquiry → Transfers to Clinic Staff (if needed)

- Books, Cancels or Reschedules appointment
- Answers Questions
- Provides Information

Background Process

Clinic Phone System — SIP (Session Initiation Protocol) Server — Speech to Text (STT) / Text to Speech (TTS) — AI-Reception Dialogue Processing Engine — EMR

Connects endpoints by handling user authentication and call routing

These models provide real-time conversion of text to spoken audio and vice versa, during phone calls

The engine uses Natural Language Processing (NLP), Large Language Models (LLM), and Workflows

The AI-Reception tool performs actions in the EMR

37,631 Total Calls: 32,245 Qualified for AI-Reception Actions

Percentage of Automated Calls (n=32,245): 64% Automation Rate, 36% Transfer Rate

Breakdown of Automated Calls (n=20,665): 56% Appointments Booked, 6% Appointments Cancelled, 5% Appointments Rescheduled, 21% Appointments Confirmed, 12% Misc. Inquiries

Success Rate of Automated Calls (n=20,665): 99% Success Rate, 1% Error Rate

Definitions:
Qualified calls: interactions that satisfy the initial "front-door" engagement threshold (duration equal or exceeding 30 seconds). This criterion is applied to exclude non-actionable events such as immediate disconnects, rapid call-backs, misroutes, and other transient interactions that do not represent meaningful caller intent or model-engageable scenarios.
Automation %: The number of autonomously handled calls as a percentage of qualified calls. Inverse of this is the Transfer Rate aka % calls forwarded to front desk (vast majority of which are based on clinic preferences / initial model spec, but error rate also gets lumped in)
Success Rate: The number of calls in which the model followed the spec, expressed as a percentage. The inverse of this number is the "Error Rate" where the model transfers to front desk because it is unable to proceed due to a system issue.

Citations:
1. O'Malley AS, Gupta DP, Rich EC, Lewis C. Administrative burden in primary care: Causes and potential solutions. Commonwealth Fund; 2025. Available from: https://www.commonwealthfund.org/publications/issue-briefs/2025/oct/administrative-burden-primary-care-causes-potential-solutions
2. Coleman K, Rittenhouse D, Muratore R. AI and the future primary care workforce. California Health Care Foundation; 2025. Available from: https://www.chcf.org/resource/ai-future-primary-care-workforce/
3. Front Desk Call Overload in Healthcare: Where AI voice agents make the biggest difference. Digital Health Canada. (2025, December 19). https://digitalhealthcanada.com/front-desk-call-overload-in-healthcare-where-ai-voice-agents-make-the-biggest-difference/#:~:text=This%20is%20where%20AI%20voice,teams%20and%20into%20automated%20workflows
4. Itchhaporia D. (2021). The Evolution of the Quintuple Aim: Health Equity, Health Outcomes, and the Economy. *Journal of the American College of Cardiology*, 78(22), 2262–2264. https://doi.org/10.1016/j.jacc.2021.10.018

Clinic Testimonials

"The platform has revolutionized our workflow, significantly cutting administrative phone time! Best of all, feedback from patients has been overwhelmingly positive!"
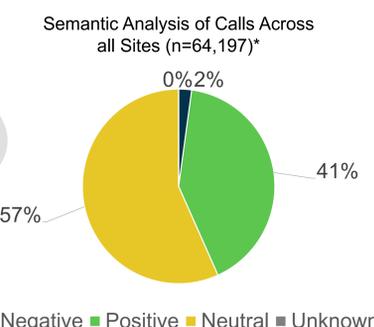
"We are very pleased with the progress that we are already seeing. The numbers are utterly amazing!"

"We are extremely happy with these results and can really notice the difference [it] is making throughout the clinic."

User Experience

"I thought it was really good - easy to use and convenient"
— Patient Advisor

"It felt like I was talking to a person. I was pleasantly surprised. I think it's a really good solution for an issue that's annoying for many patients."
— Patient Advisor

Semantic Analysis of Calls Across all Sites (n=64,197)*

Negative 2%, Positive 41%, Neutral 57%, Unknown 0%

*~98% of caller interactions were "Neutral" or "Positive" based on semantic analysis. These results are from a user semantic call analysis from September 2025 including over 64,197 calls. Less than 2% calls had unknown (n=8) or negative (n=1,396) semantics. While 26,400 positive and 36,393 calls were classified as neutral.

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