Using Artificially Intelligent Text Messaging Technology to Improve American Heart Association's Life's Essential 8 Health Behaviors (Chat 4 Heart Health)

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Chat for Heart Health

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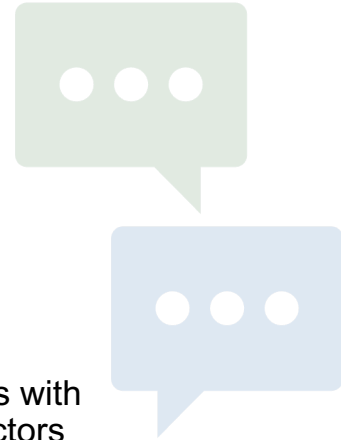Rethinking Clinical Trials®

Objective

Improve control of cardiovascular disease risk factors using a multilevel intervention leveraging mobile phone-based text messages integrated within healthcare systems to improve control of the American Heart Association's Life's Essential 8 (LE8) lifestyle factors

Strategy

- 5-year multilevel intervention to test comparative effectiveness of 3 strategies:

  – Generic text messages

  – Interactive AI-based chatbot text messaging
    - Uses evidence-based communication strategies with attention to patient context and sociocultural factors that influence self-management

  – Interactive AI-based chatbot text messaging plus proactive pharmacist management

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Setting

📍 Denver Health and Hospital Authority

📍 Salud Family Health Centers

📍 STRIDE Community Health Center

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Patient identification and enrollment

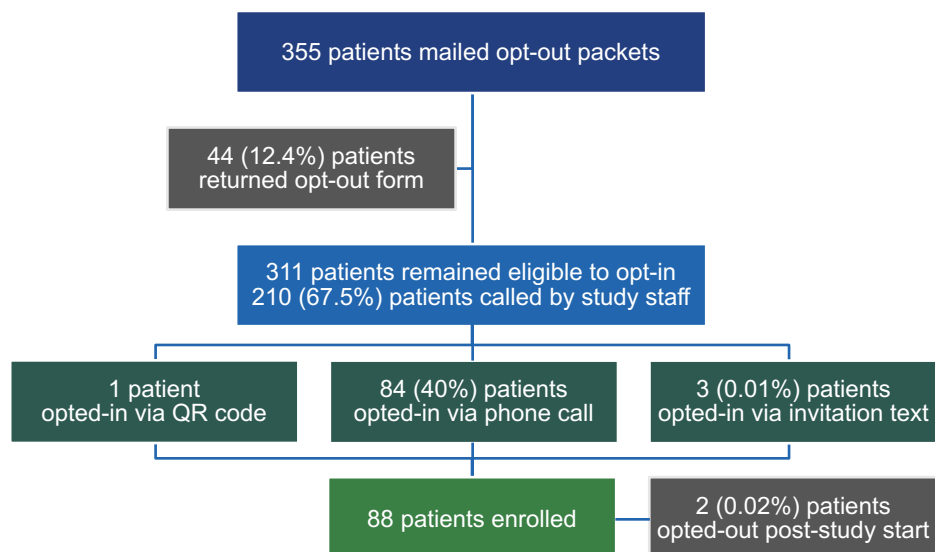**Patients meeting inclusion criteria identified through EHR**

Staff mail patient a packet
- Study info, opt-out form, opt-in form with QR code and phone number

Staff called patients who did not opt-out or opt-in
- Patients not reached were texted an invitation to participate

Enrolled patients can opt-out any time by texting STOP

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355 patients mailed opt-out packets

44 (12.4%) patients returned opt-out form

311 patients remained eligible to opt-in
210 (67.5%) patients called by study staff

1 patient opted-in via QR code

84 (40%) patients opted-in via phone call

3 (0.01%) patients opted-in via invitation text

88 patients enrolled

2 (0.02%) patients opted-out post-study start

Barriers/challenges

- FCC regulatory change that impacts the study's ability to use an opt-out enrollment approach

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Solutions/lessons learned

- Flexibility in study design

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