Personalized patient data and behavioral nudges to improve adherence to chronic cardiovascular medications (The Nudge Study)

**Background**

- Up to 50% of patients do not take their cardiovascular (CV) medications as prescribed, resulting in increased morbidity, mortality, and healthcare costs.
- **Why a Nudge?:** A small, strategic reminder (a “nudge”) via text message is cost-effective, easily adaptable, and may help with medication adherence.
- **Setting:** University of Colorado Anschutz Medical Center; Denver Health and Hospital Authority; UCHealth; Eastern VA Health Care System
- **Objective:** To conduct a pragmatic randomized trial in 3 disparate health care systems leveraging pharmacy data to improve adherence to chronic CV medications through the use of text messaging and chat bots.
- **Progress:** We have completed our enrollment period (n=9,500 patients enrolled across 3 HCS) and are in the one year follow up period for the study.
Barriers/Challenges

- **Institutional engagement:** The Covid-19 pandemic drove considerable delays initiating the intervention at UCHealth.

- **External pharmacy data:** Linking external pharmacy refill data takes longer and can result in dissemination of incorrect messages; we need to improve the timing of Surescripts data transfers while ensuring messages are also timely and relevant.
Insights/Solutions

- **HCS engagement**: Upon implementing the intervention, enrollment moved along quickly. This seems largely COVID related.

- **Surescripts**: Create option for patients to alert us that they’ve already refilled their medications; pharmacists still on call for questions.

- **Adaptability**: It is possible to implement this intervention across vastly different HCS with diverse EHR systems and patient populations.

- **Patient familiarity with the intervention**: Text messages are ubiquitous; patients require no training to receive the messages.

- **Intervention optimization**: We can enhance, adapt and quickly design new messages as needed in response to patient interactions and with rapidly emerging events (e.g. Covid-19).