

# Utilizing Culturally Appropriate Messaging System to Provide Equitable Healthcare

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## Background

- Every year, the Carefirst Diabetes Education Program (DEP) serves ~2000 people.
- Everyone with diabetes should receive education about how to manage their condition; those who miss out on education may be more likely to suffer heart attacks and strokes.
- Missed appointments also lead to reduced efficiency for staff and lengthened wait times.
- Half of the patients forget to attend their appointment unless they receive a reminder.
- Reminder phone calls take staff ~3 hours/day and include COVID screening.
- Short message service (SMS) reminders might help patients remember their appointments, but they are only available in English.
- Because 80% of Carefirst patients speak Chinese and have limited English ability, Carefirst has developed Chinese SMS reminders.

## Objective

- To provide equitable healthcare by using automated reminder systems that are culturally appropriate for the intended population in order to:
  - Reduce missed appointments
  - Decrease staff administrative time
  - Improve patient satisfaction

## Methods

- The reminder text system was integrated into the Electronic Medical Record (EMR) on March 1, 2022.
- A message reminder (in Chinese and English) was sent to the patient's mobile phone 7-days prior to the appointment and included a consent text.
- If the patient agreed, another reminder was sent 2-days prior to their appointment date.
- For in-person appointments, a COVID screening link was also sent 1-day prior to the appointment.
- All patients' text responses, including appointment confirmation and COVID screening assessment, are automatically populated into the EMR.
- If the patient declines consent or fails to respond to the message, our staff will then call the patient to remind them of their appointment and conduct the COVID screening.



Figure 1. Consent and first reminder message

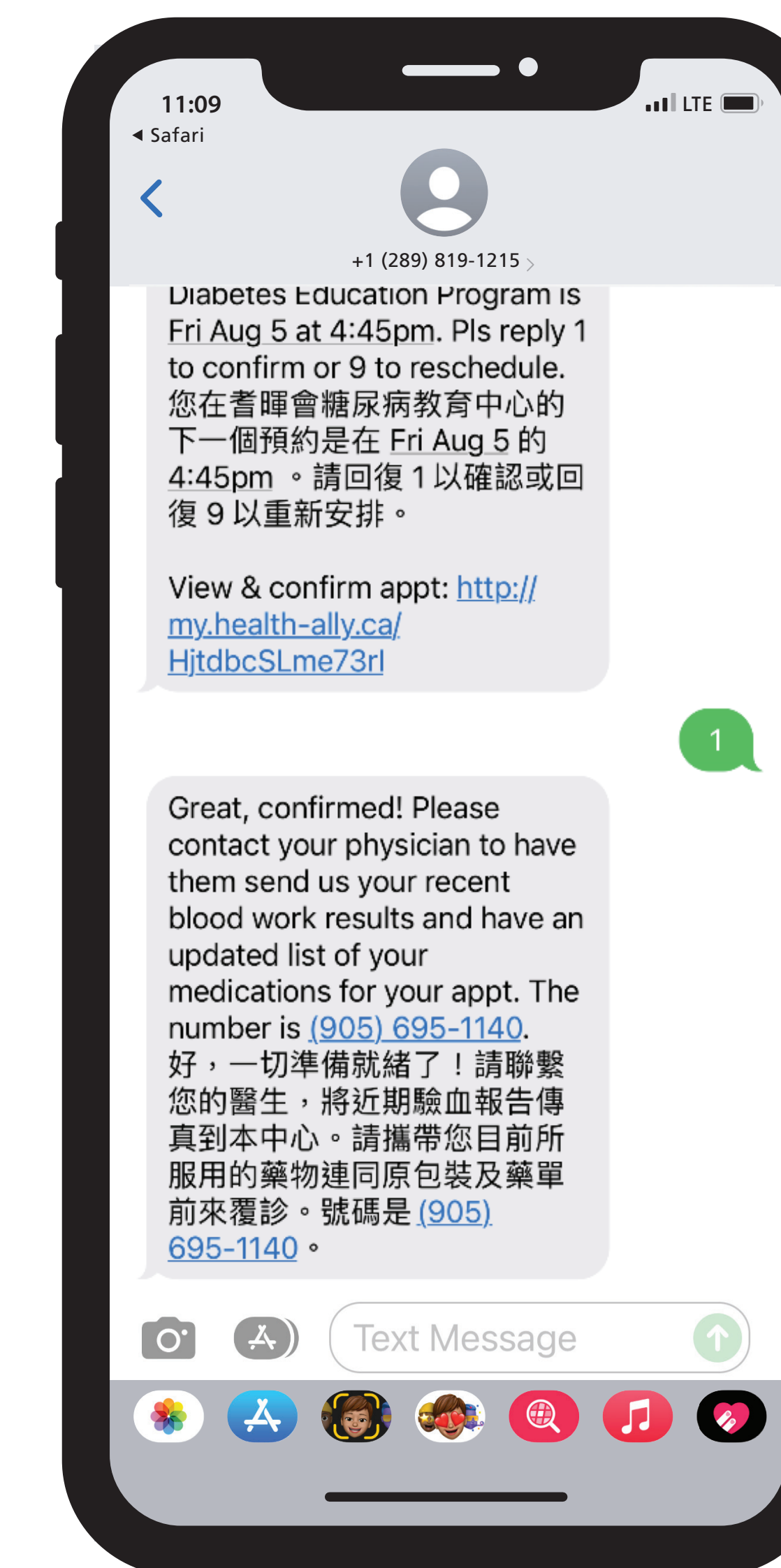


Figure 2. Patient's confirmation

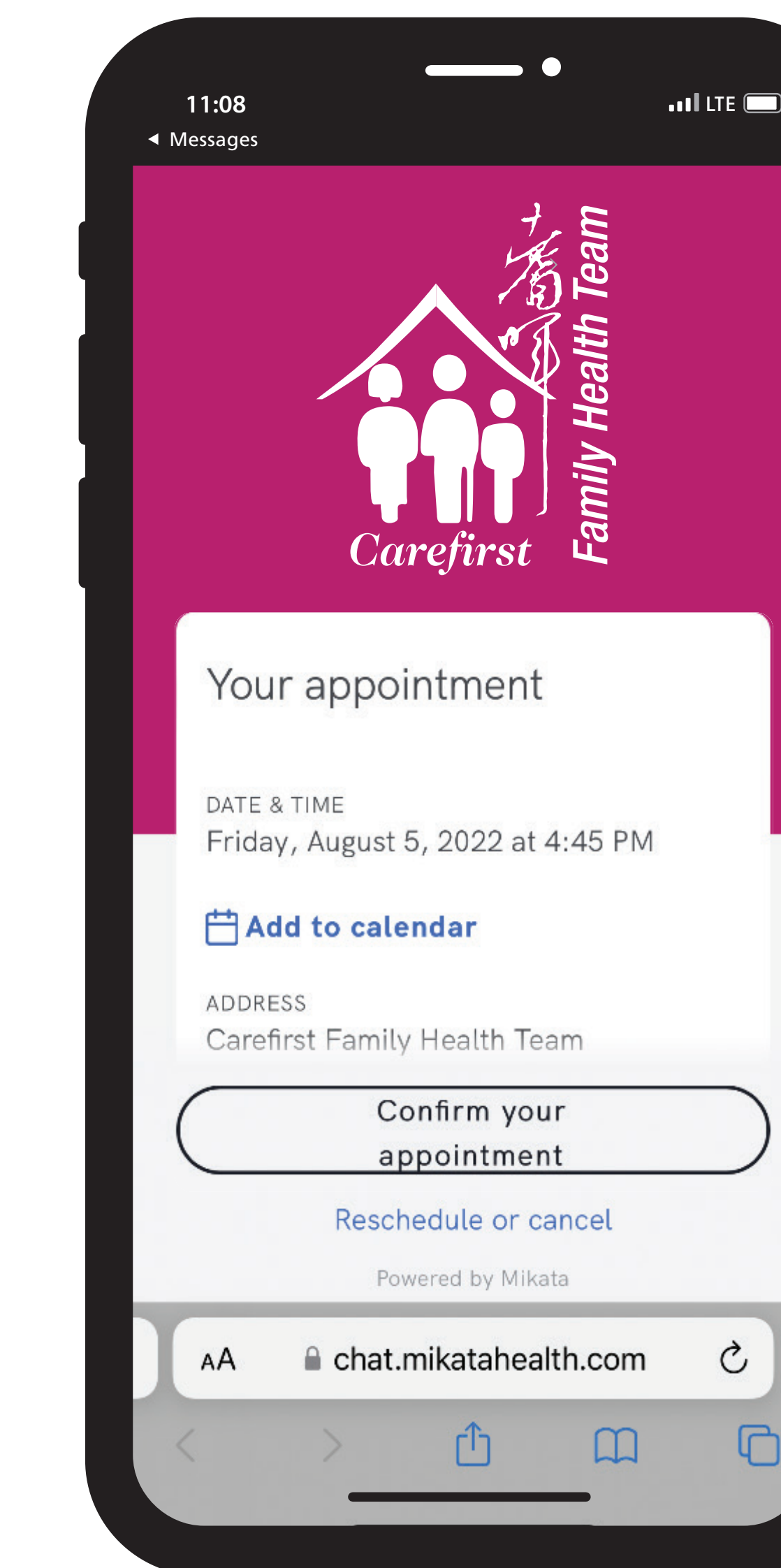


Figure 3. Link to view & confirm appointment

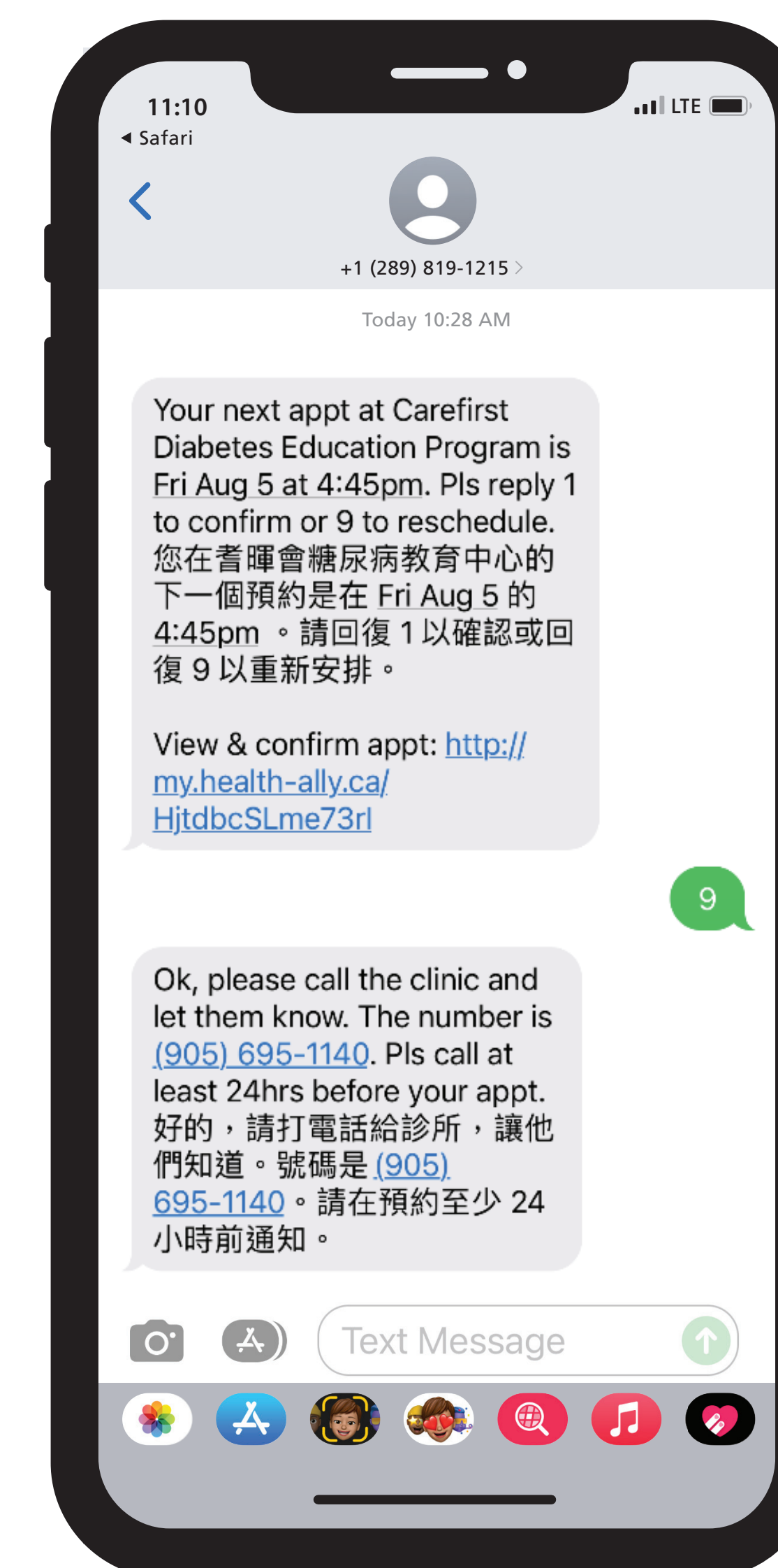
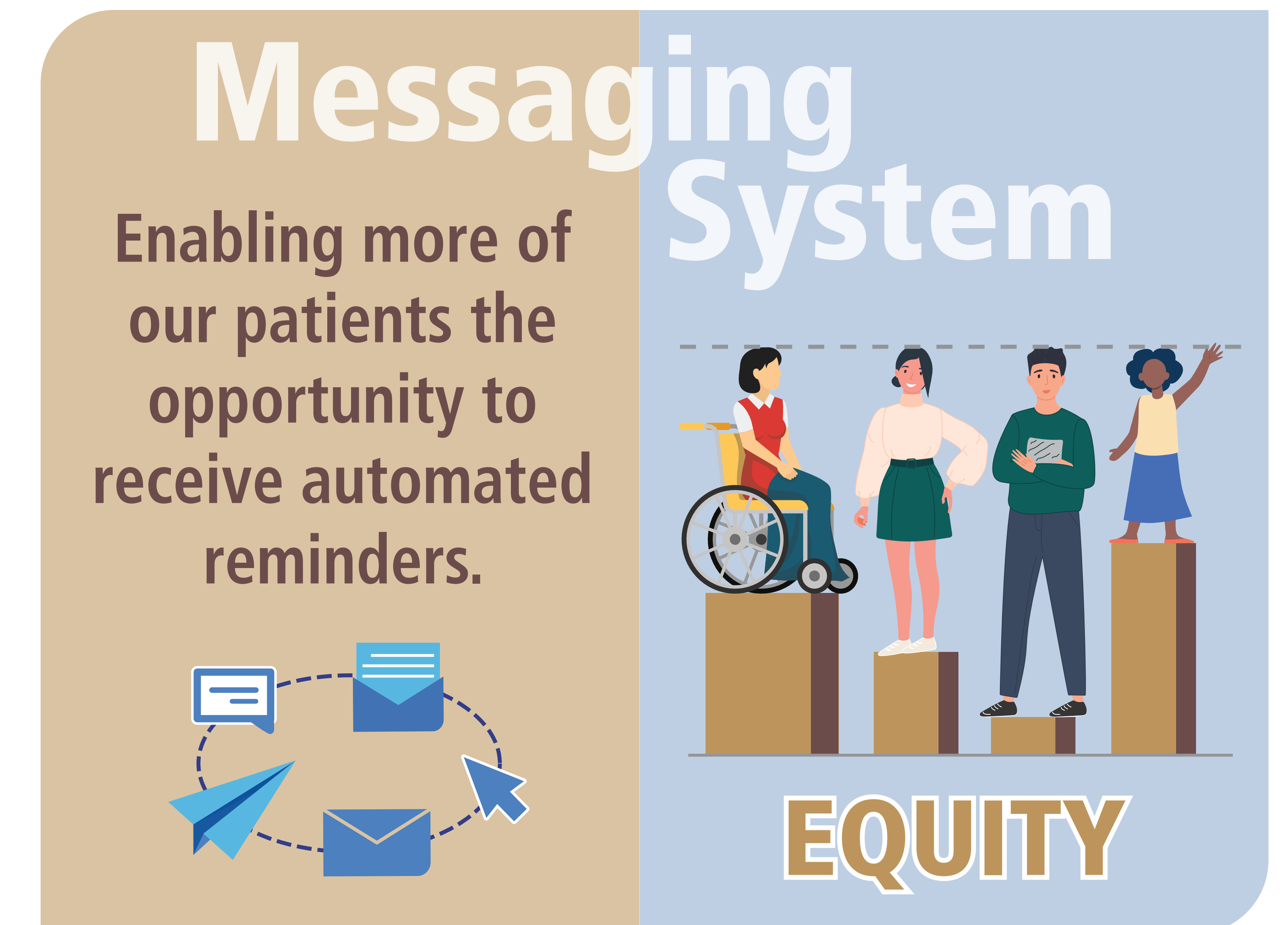


Figure 4. Reschedule

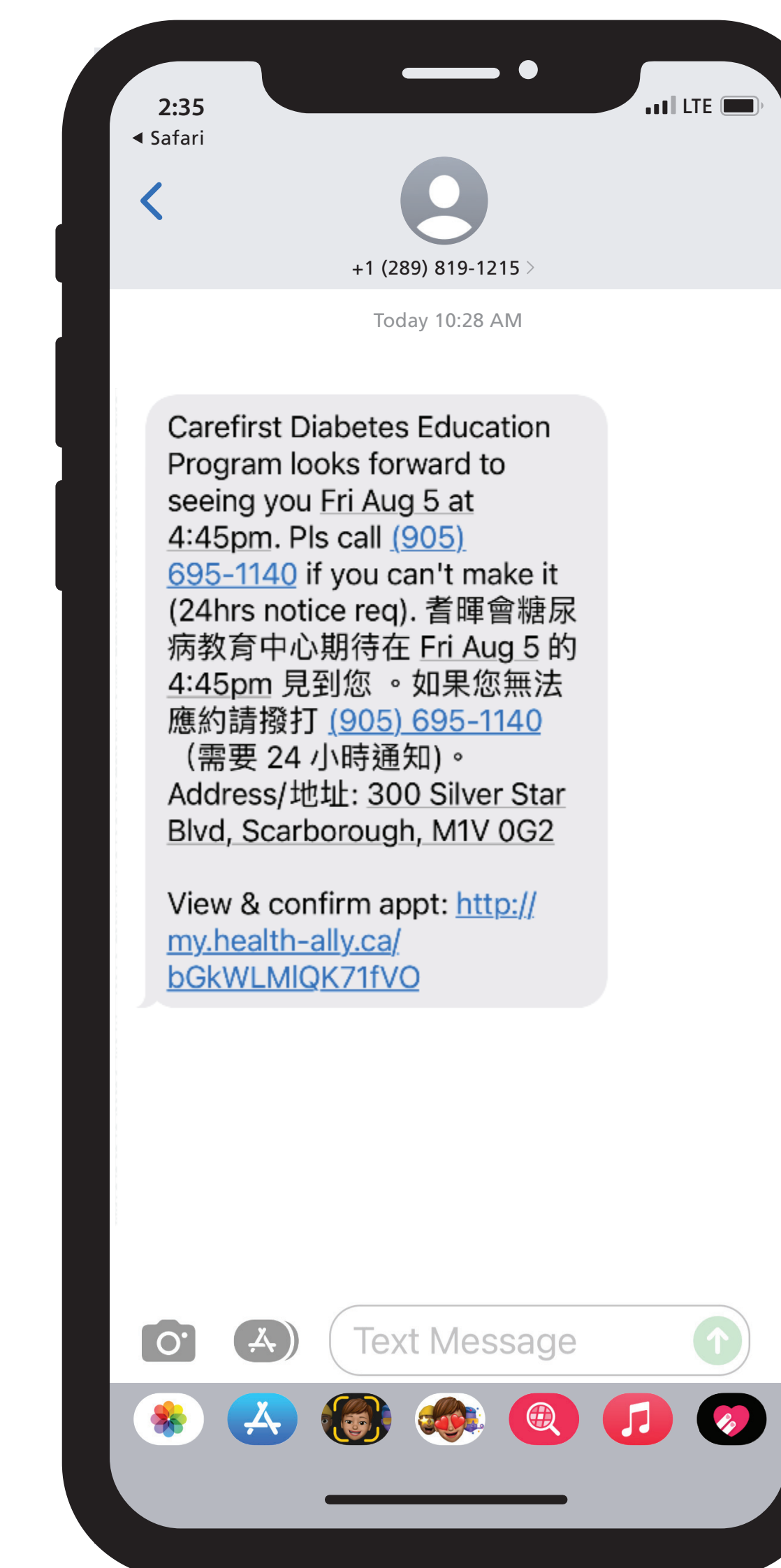


Figure 5. 2 days prior to appointment reminder message

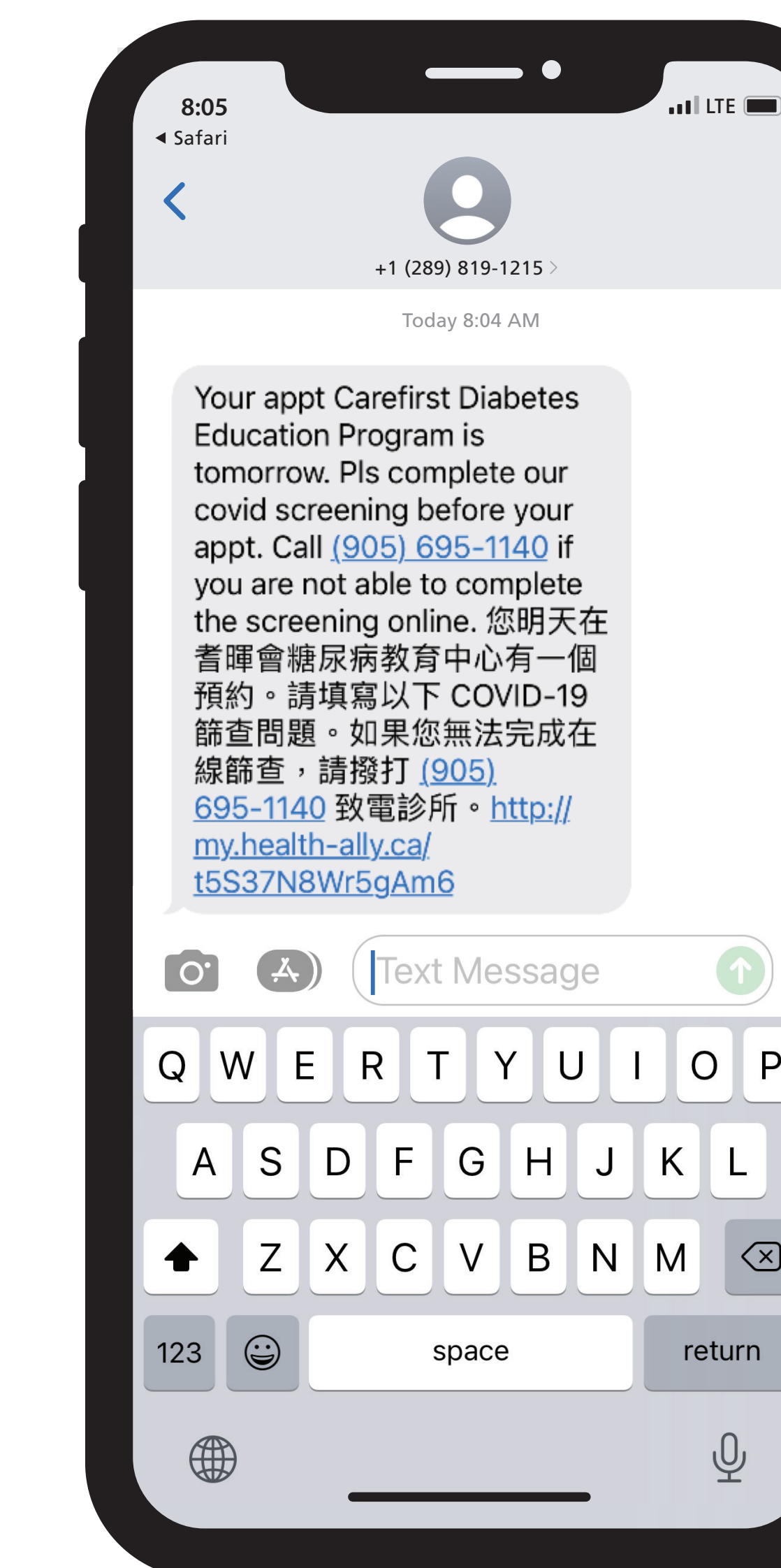


Figure 6. COVID screening link

Mar 10, 2022 1MIA  
English Covid Questions  
Is the patient experiencing any symptoms: {"None of the above"}  
Has the patient tested positive for COVID-19 in the past 10 days or been told they should be isolating: No  
Has the patient travelled outside of Canada in the past 14 days or live with anyone who has: No  
Has the patient had close contact with a confirmed case of COVID-19 without wearing appropriate PPE: No

Figure 7. COVID screening response integrated into EMR

## Observations

- 81.3% of patients strongly agree / agree that having a Chinese text message reminder was important in allowing them to understand and reply to the message.
- 83.1% of patients are very satisfied / satisfied with SMS text message system as a reminder for their appointment.
- 78.5% of patients found it was easy to confirm appointments through SMS text.
- 210 minutes of administration time saved per week as a result of using the new SMS text messaging system.

## Future Directions

- Incorporate patient's feedback obtained through surveys to improve the messaging system.
- Review the trend of no show rates pre/post implementation of the SMS reminders.
- Expand the reminder system to other clinics at Carefirst and healthcare systems that require culturally appropriate reminders to ensure equitable access to care.