



Implementation of CareMessage Text Reminders to reduce BRIDGE Healthcare Clinic No-Show Rates



Valeria Pereira, Michelle Lippincott, Toaa Abuelenen, Corley Price, Parth Patel, Jude Nawlo, Andres Santayana, Lucy Guerra, MD, Eduardo Gonzalez, MD

Introduction & Background

- Missed appointments account for up to \$150 million in costs to the U.S. healthcare system, leading to increased cost of care, as well as a further decrease in access to health care for financially disadvantaged patients.
- Each missed appointment has a negative impact on a patient’s health, and delays timely health care for other patients.
- Patients of lower socioeconomic status and minority racial and ethnic groups are associated with reduced health care use in the United States. At the USF Health BRIDGE Clinic, a student-run free clinic, the majority of our patient population fall under these demographics.
- Clinics with the lowest no-show rates were shown to use multiple strategies to reduce their no-show rates, including patient education, patient reminders, patient sanctions, and some degree of open-access scheduling.

Objectives

- The BRIDGE Healthcare Clinic began using the CareMessage application mobile text reminders in an effort to reduce the negative impact of missed appointments.
- The objectives of this study are to:
 - Analyze the effectiveness of the CareMessage automated appointment reminders in lowering the no-show rate at BRIDGE Healthcare Clinic.
 - Promote compliance with scheduled appointments to reduce the negative effects on our patient’s health and financial burden, and reduce associated costs to our clinic.
 - Evaluate the need for more standardized methods to further improve the patient appointment no-show rate.



Bridge Clinic: You have an appointment on Oct 2 at 12:30pm at 13330 USF Laurel Drive. Can you attend? Text YES to confirm, NO to decline, or STOP.

Methods

- A retrospective review was performed to record the number of appointment no-shows from one year prior to the implementation of the CareMessage appointment reminders in October 2015.
- The data starting in October 2015 through September 2016 was compared to the earlier data to determine if the addition of the CareMessage automated messages had an effect on the rate of appointment no-shows.
- A no-show was defined as an appointment to which the patient did not arrive without prior notification to BRIDGE Healthcare Clinic.

Data & Results

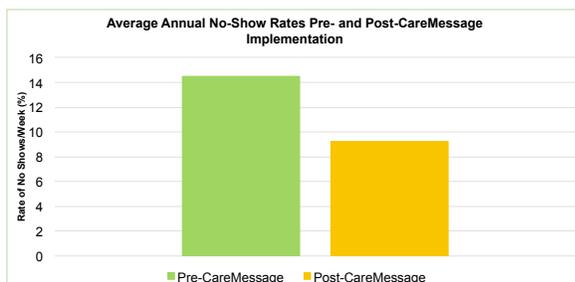


Figure 1 Rate of No-Shows per Month One Year Pre- and Post-CareMessage

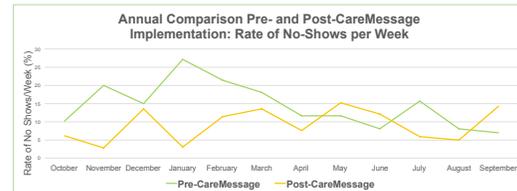


Figure 2 Average Rate of No-Shows One Year Pre- and Post-CareMessage

Conclusions & Discussion

- When comparing the average rate of no-shows for the year before and after implementing CareMessage, there is a 1.51% decrease in the rate from 10.16% to 8.65% (Figure 2). However, the difference in rate of no-shows is not statistically significant according to the results of our t-test analysis.
- Based on Figure 1, there is no consistent trend in the no-show rates per month after the implementation of CareMessage; this is most likely due to the various changes that were made during the year to optimize patient responsiveness.
- Factors affecting the efficacy of CareMessage:
 - Patient training
 - Text ambiguity (ie. lack of patient name)
 - Timing of RSVP messages
 - Labs reminders
 - Updated patient contact information
- The factors mentioned above greatly hindered the optimization of CareMessage, therefore, it is possible that the decrease in the average rate of no-shows would have been greater had these factors been corrected early in the year.
- While the decrease in the average rate of no-shows a year after implementing CareMessage was limited, CareMessage made a significant impact on efficiency with administrative work, and on decreasing appointment cancellations due to missing lab work.



Future

- As shown in previous studies, to effectively reduce the rate of no-shows, clinics had to make use of multiple strategies. After implementing the CareMessage reminders, BRIDGE Clinic now has the opportunity to combine it with other strategies to effectively reduce our rate of no-shows.
- Possible future studies that can expand on this data include:
 - Effect of timing of RSVP messages on responsiveness from patients
 - Efficacy of CareMessage in decreasing cancellations due to missing lab work
 - Testing the rate of no-shows for a longer period of time after addressing the factors affecting the optimization of CareMessage.

Acknowledgements

Gina Slack, Luis Alvarez, Hannah Rapp, CareMessage, Morsani Clinic, University of South Florida

Reference

1. Johnson B.J., Mold J.W., Pontius J.M. Reduction and management of no-shows by family medicine residency practice exemplars. *Ann. Fam. Med.* 2007;5:534-539. doi: 10.1370/afm.752.
2. Salameh, E., Olsen, S., & Howard, D. (2012). Nonattendance with clinic follow-up appointments: Diabetes as exemplar. *The Journal for Nurse Practitioners*, 8(10), 797-803.
3. Festinger, D. S., Lamb, R. J., Marlowe, D. B., & Kirby, K. C. (2002). From telephone to office: Intake attendance as a function of appointment delay. *Addictive Behaviors*, 27, 131-137.