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## RESEARCH QUESTION

In patients discharged from Texas Health emergency departments, how is the Hospital2Home app-based follow-up program utilized? How has this utilization changed when comparing the years immediately pre- and post- the start of the COVID-19 pandemic?

## BACKGROUND

The education that is provided at the time of discharge from the ED is a pivotal moment in a patient's care. Multiple studies have shown that a large percentage of patients do not understand their discharge instructions. Additionally, many patients don't keep their follow-up appointments after discharge. Lack of understanding of the discharge instructions and lack of follow-up can lead to unscheduled return visits to the ED and increased hospital costs.

A potential solution to help patients better understand their discharge instructions, and mitigate the lack of primary care follow-up and unscheduled return ED visits, is through the use of telehealth for ED follow-up. In 2019, several Texas Health emergency departments implemented an application-based telehealth follow-up service for ED patients called Hospital to Home (H2H). The program provides all patients who are discharged from the ED with a unique code that can be used with an online or phone application

## METHODS

A retrospective chart review was conducted to look at characteristics of the utilization of the H2H platform for patients that were seen in the Emergency Department at multiple Texas Health facilities between the period at the beginning of the COVID-19 pandemic, defined as March 2020-March 2021, and the year directly preceding the pandemic, defined as January 2019-January 2020. Characteristics include age, gender, the reason for usage, and secondary outcomes of usage.

Programs like Hospital2Home offer resources for discharged ED patients and helps them avoid unnecessary visits, saves hospitals money, and improves the overall healthcare experience through telehealth.



QR code for Full Thesis

## RESULTS

When comparing the data from January 2019 to December 2019 with the data from March 2020 to March 2021, there are some notable differences:

- The number of total discharges increased from 242,233 to 456,165 patients
- There was also an increase in new H2H registrations from 6,441 to 25,220 and completed H2H encounters from 2,760 to 10,719
- Percentage of encounters that led to recommended in-person follow-up increased from 22.17% to 26.9%, while the percentage of encounters that led to recommended virtual follow-up remained relatively stable at 3.80% and 2.67% for the two periods,
- The most common non-medical reasons for use in both periods were inquiries about medical records/results and other redirect/admin inquiries
- The percentage of encounters that resulted in additional prescriptions being written also remained similar at 15.1% and 15.2% for the two periods
- Average duration of active interactions decreased from 75.07 minutes to 65.11 minutes, and the average initial response time by physicians decreased from 20.64 minutes to 7.448 minutes
- Average number of messages sent by patients increased from 5.94 to 7.05, and the average number of messages sent by providers remained relatively stable at 7.28 and 7.96
- The percentage of repeat users increased from 24.33% to 33.21%

Overall, the data suggests that there has been an increase in usage of H2H across Texas Health facility emergency departments, along with a decrease in initial response times by physicians and an increase in patient engagement through messaging

## FUTURE DIRECTIONS

Further research is needed to determine the precise role of H2H in patient satisfaction, as it is becoming increasingly important for hospital programs to improve patient care. Collaborative efforts between H2H administrators and hospital quality improvement and surveying departments can enhance patient satisfaction. Additionally, the program should be accessible to patients from diverse backgrounds, and analyzing utilization trends by location, gender, and race can help achieve this goal. Furthermore, H2H data can track discharge medicine prescription trends, allowing for opportunities to improve discussions of pain management options and appropriate use of antibiotics.