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BACKGROUND

The "Clinical Experience" program at the Sidney Kimmel Medical College, established in 2017, provides pre-clerkship students with an opportunity to identify and address patients' needs for social determinants of health (SDoH). The COVID-19 pandemic led to a suspension of the student program in the clinical environment, but the CHWs continued to address patients' social needs from a remote setting. In the absence of established best practices regarding patient outreach calls from a remote setting, we sought to develop an effective workflow that would mask the CHWs' personal cell phones while leading to fewer "unable to reach" scenarios and improved case resolution rates.

OBJECTIVES

We sought to improve the rate of successful outreach calls by our community health workers (CHWs) as they were transitioned to a remote work setting during the COVID-19 pandemic.

DESIGN AND METHODS

De-identified data corresponding to the remote work completed by the CHWs was included in the retrospective analysis. Patient work queues were constructed based on customized reports that included discharged Emergency Department patients without a listed primary care doctor and/or health insurance; reports were generated through the electronic medical record (Epic Systems Corporation, Verona, WI). The outcomes of the phone screenings and eventual case resolutions were compared based on the three approaches used to make outgoing calls to patients – *67 (to block Caller ID), Google Voice number (using a "215" area code), and Doximity Dialer (using a "215-955-XXXX" number to simulate a Jefferson source for the outgoing call). To make outgoing calls, the CHWs first used *67, then transitioned to a Google Voice number, and ultimately switched to Doximity Dialer for the remaining study period. The three outgoing call approaches were compared based on rates of "left voicemail" (calls routed to patients' voicemails), "unable to reach" (two or more un-returned voicemails), and successful "case resolution" (patient was contacted and a social need intervention was completed).

RESULTS

From March 19, 2020, to May 15, 2020, the CHWs made a total of 1,684 outreach calls to 840 unique patients. 55 social determinant needs were identified, 270 primary care provider needs, 94 health insurance needs, and 181 "other" needs were discovered (e.g. information counseling, appointment coordination, PCA referral, etc). **Table 1** summarizes the rates of "left message", "unable to reach", and "successful case resolution" for the three different approaches to performing outgoing calls. When comparing outreach calls that used *67 to those using Google Voice, the rate of "left voicemail" decreased by 22% (absolute difference 7%, 95% CI -0.4-14%), though the results were not statistically significant (p=0.07). As compared to *67, the use of Doximity Dialer decreased the "left voicemail" rate by 38% (absolute difference 12%, 95% CI 4-19%, p<0.001); likewise, in comparison to Google Voice, the "left voicemail" rate was decreased by 20% (absolute difference 5%, 95% CI 0.6-9%, p=0.02).

RESULTS – CONTINUED

When comparing *67 to Google voice, the rate of "unable to reach" was decreased by 31% (absolute difference of 19%, 95% CI 11-27%, p<0.001). As compared to *67, the use of Doximity Dialer decreased the "unable to reach" rate by 48% (absolute difference 29%, 95% CI 20-37%, p<0.001); as compared to Google Voice, the rate was decreased by 25% (absolute difference 10%, 95% CI 4-16%, p<0.001). Finally, after the transition from *67 to Google Voice, the rate of successful case resolution was increased by 84% (absolute difference 16%, 95% CI 9-22%, p<0.001). As compared to *67, Doximity Dialer likewise showed a statistically significant increase in the rate of successful case resolution; the rate increased by 111% (absolute difference 21%, 95% CI 13-28%, p<0.001). There was no significant difference between case resolution rates between Google Voice and Doximity Dialer (absolute difference 5%, 95% CI -0.01-11%, p=0.08).

TABLE 1. Comparison of "Left Voicemail", "Unable to Reach", and "Case Resolution" rates between the three types of outgoing calls (*67, Google Voice, and Doximity Dialer).

Outgoing Calls	Left Voicemail % (95% CI)	Unable to Reach % (95% CI)	Case Resolution % (95% CI)
*67	32% (25-39%)	61% (53-68%)	19% (14-25%)
Google Voice	25% (22-28%)	42% (38-46%)	35% (31-39%)
Doximity	20% (17-23%)	32% (28-37%)	40% (36-45%)
OVERALL	**24% (22-26%)**	**41% (39-44%)**	**34% (32-37%)**

CONCLUSIONS

Community health workers (CHW) redeployed to a remote work setting were able to continue screening patients for SDoH as well as addressing other needs such as establishing health insurance and a primary care provider. As compared to placing outgoing calls using either a blocked caller ID (*67) or Google Voice, patients were more successfully contacted (with lower "left voicemail" rates) when Doximity Dialer was used. The overall "unable to reach" rates were lower and the successful case resolution rates were higher for both Google Voice and Doximity Dialer as compared to using *67. The data suggests that a *67 (block caller ID) is an ineffective way to reach patients by phone. The use of a "215" area code with Google Voice likely enhanced the legitimacy of the source of the phone call. Doximity Dialer "215-955-XXXX" may have performed best due to patients' recognition of this number as originating from Jefferson. Based on this information, our recommendation for others initiating such a program would be to consider Doximity Dialer (using familiar outgoing call numbers) as a first approach. Further research is needed to assess other interventions that might improve the efficacy of a remote work model for CHWs, as well as the potential role for CHWs in the longitudinal follow-up of discharged patients with confirmed or suspected COVID-19.