STUDY OVERVIEW: WHAT IS DIAL-COVID?

Dial-COVID is a mobile telephone-based interactive voice response (IVR) platform launched by the University of Washington, the Infectious Diseases Institute, Makerere University, the Harvard Humanitarian Initiative, Medical Teams International and Viamo to better understand COVID-19 in refugee settlements in Uganda. The Dial-COVID platform is available in 10 languages and is advertised in Ugandan refugee settlements by Village Health Teams. Participants can access the platform free of charge by “beeping” the Dial-COVID number which prompts a free return call. Additional participants are reached through random digit dialing (RDD) monthly. In a telephone IVR survey (Aim 1), participants are asked about demographics, COVID-19 symptoms and exposure risks, and based on their responses, receive a tailored public health message in accordance with the Ministry of Health’s disease mitigation information. Participants ineligible for participation or unwilling to complete the survey are still able to hear COVID-19 information. Participants who agree to be contacted for future research may be selected to participate in Aims 2 - 4. This research will help to identify barriers and facilitators to the adoption of public health interventions in refugee settlements in support of implementing partners. If effective, Dial-COVID can be deployed in other settings for surveillance of COVID-19 and other infectious diseases, and the lessons learned can be employed to design more effective health interventions in the future.

**AIM 1:** Dial-COVID interactive voice response symptom and exposure tracker
 Implemented January 26th, 2021

- N=1,000
- N=1,000
- N=40

**AIM 2:** COVID-19 testing to validate a prediction algorithm using Dial-COVID information
 To start end of March 2021

**AIM 3:** Survey to assess knowledge, risk perceptions and mitigation efforts given every 2 months (total 3x)
 To start April 2021

**AIM 4:** Qualitative interviews to understand barriers and facilitators to adoption of COVID-19 prevention/control measures
 To start end of March 2021

PRELIMINARY FINDINGS: WHAT ARE THE MAIN TAKEAWAYS?

Data collected between January 26th and March 12th, 2021

- Dial-COVID is accessed by both refugees and Ugandan nationals (internally displaced and not) living within refugee settlements and outside refugee settlements.
- Through Dial-COVID, we can disseminate public health information to hard-to-reach populations including refugees living in different refugee settlements in all four regions of Uganda.
- 57% of participants calling in to Dial-COVID report symptoms or an exposure that could be consistent with COVID-19 disease.
WHAT KIND OF UPTAKE OF DIAL-COVID ARE WE SEEING?

Since Dial-COVID began near the end of January 2021, 1,079 participants have called the Dial-COVID number, and 2,889 participants have been reached through random digit dialing. Of the 1,079 call-in participants, 690 (64%) agreed to take the symptom trackers survey and 315 (29%) completed the survey; 150 participants (14%) did not take the survey but listened to the COVID-19 information. Of the participants reached through random digit dialing, 1,124 (39%) consented to the symptom tracker survey, with 521 (18%) completing the survey and 476 participants (16%) wanting to hear COVID-19 information only. To date, a total of 1,712 COVID-19 public health messages have been shared with 577 (53%) call-in and 1,135 (39%) random digit dialing participants.

WHO ARE WE REACHING?

The Dial-COVID platform is being accessed in all 10 study languages by participants residing in all four regions of Uganda. Participants are predominantly female (call-in 77%, RDD 67%), and are between the ages of 18-25 years (call-in 39%, RDD 45%). Of the call-in participants, 10% have not attended school, 32% have attended some primary school, 24% completed primary school and 31% attended school beyond primary school. For the random digit dialing participants, a greater proportion of participants studied beyond primary school, with 10%, 21%, 16% and 50% reporting having attained the respective education levels. Calls-in were made by 335 refugees (62%), 15 asylum seekers (3%), 42 internally displaced Ugandan nationals (8%), 16 non-refugee foreign nationals (3%), and 130 Ugandans (24%). Through random digit dialing, 31 refugees (4%), 13 asylum seekers (1%), 140 internally displaced Ugandans (16%), 11 non-refugee foreign nationals (1%), and 658 non-displaced Ugandans (75%) were reached. Most of the call-in participants report living in a refugee settlement (79%), and random digit dialing also reached a significant number of participants living in refugee settlements (25%).
WHAT ARE PARTICIPANTS REPORTING?

In the IVR symptom tracker survey, participants are asked about the presence of symptoms that may be consistent with COVID-19 disease such as fever, cough, shortness of breath, and loss of taste or smell. Participants are also asked whether they have been exposed to a known COVID-19 case or someone with a new respiratory symptom in the past month. Of the call-in participants, 212 participants (57%) reported at least one symptom or an exposure, and for the participants reached through random digit dialing this was 309 participants (53%). Thirty-five call-in participants (9%) and 26 random digit dialing participants (4%) were in quarantine or admitted to a hospital at the time of survey completion. In the IVR survey, participants are also queried about comorbidities to determine if they may be at greater risk for COVID-19 morbidity or mortality. Among Dial-COVID participants, comorbidity is prevalent and 118 call-in participants (29%) and 206 random digit dialing participants (32%) reported suffering from chronic health issues.

WHAT ARE THE NEXT STEPS?

In the next few weeks, we will begin COVID-19 testing (Aim 2). Those participants calling in to Dial-COVID who report at least one symptom or an exposure and consent to be contacted for future research will be invited to participate in COVID-19 PCR testing. COVID-19 testing will allow us to determine the validity of the COVID-19 symptom tracker survey and help to create a predictive algorithm for COVID-19 disease. At the beginning of April, a cohort of call-in participants who have consented to future research will also receive the first of three surveys assessing knowledge about COVID-19 and exploring risk perceptions and thoughts regarding COVID-19 mitigation strategies (Aim 3). We will also begin inviting eligible call-in participants to participate in a one-time qualitative interview to understand barriers and facilitators to the adoption of COVID-19 prevention and control measures (Aim 4). At the beginning of April, the third batch of random digit dialing calls will also be sent out.

QUESTIONS?

If you have any questions or would like to hear more about the Dial-COVID study, please do not hesitate to contact Dr. Kelli O’Laughlin (study PI) at kolaugh@uw.edu or Dr. Timothy Muwonge (Site-PI) at tmuwonge@idi.co.ug. Learn more about the Dial-COVID study at: https://www.elrha.org/project/dial-covid-telephone-symptom-surveillance-refugees-uganda/

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