

## Behaviourally informed two-way text messaging to improve return to HIV care in South Africa

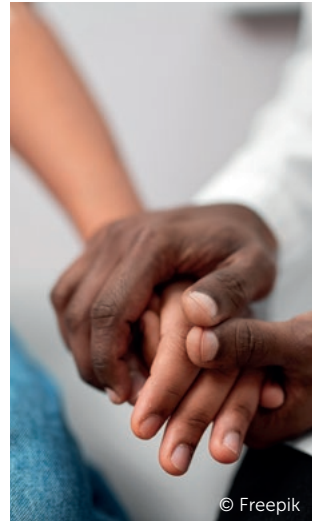
High rates of loss to follow-up among people living with HIV (PLWH) on antiretroviral therapy (ART) persist, and result in increased HIV transmission, treatment resistance, morbidity, and mortality.

Common reasons for disengagement from care include unexpected events and life changes, socio-economic reasons, mobility, stigma at clinics, and lack of perceived benefit of ART. The South African National Department of Health launched the “Welcome Back Campaign” in 2021 to encourage a client-centred approach to manage missed appointments and re-engagements without judgement and develop key messages for client support.

Two-way text messaging has shown promise in improving medication adherence and

maintaining engagement in care. This may be effective in part because of the potential to enable greater interactivity between message recipients and message senders, enhance client-provider relationships and tailor messaging to address specific reasons for missing an appointment.

Aligned to the “Welcome Back Campaign” we designed text messages that first asked why someone had missed a clinic appointment and then replied using principles from behavioural science to address specific challenges and encourage return to care.



### STUDY DESIGN & INTERVENTION

**Objective:** To test whether behaviourally informed two-way text messages would be better than a standard one-way message in increasing clients returning for a clinic visit after a missed ART appointment.

**Study location:** HIV care recipients from 100 clinics supported by Anova Health Institute within Capricorn District, Limpopo Province were included in the study.

**Study population:** Clients who had missed a scheduled ART appointment by  $\geq 28$  days.

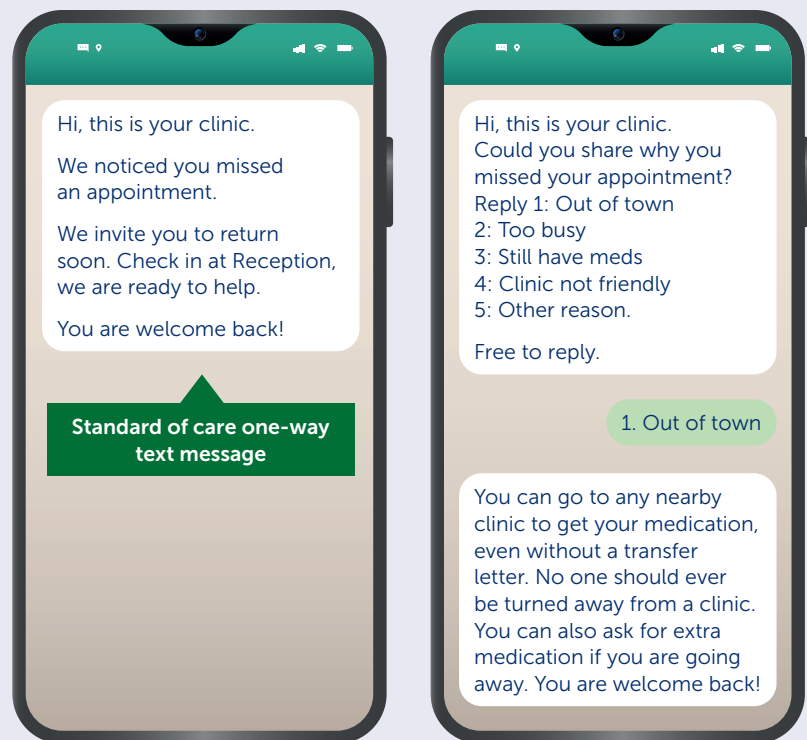
**Study design:** Clients were randomly assigned to one of two groups:

- Standard one-way text message with a “Welcome Back” message.
- Behaviourally informed two-way text messages to identify reasons for missing a clinic appointment.

The intervention group received a tailored follow-up message after responding as shown in the figure alongside.

### PRIMARY OUTCOME

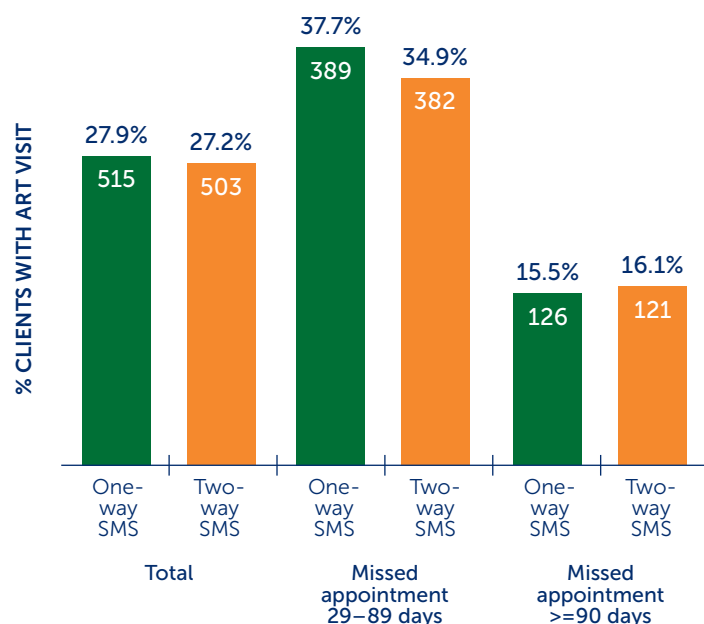
ART clinic visit within 45 days of receiving the first message.



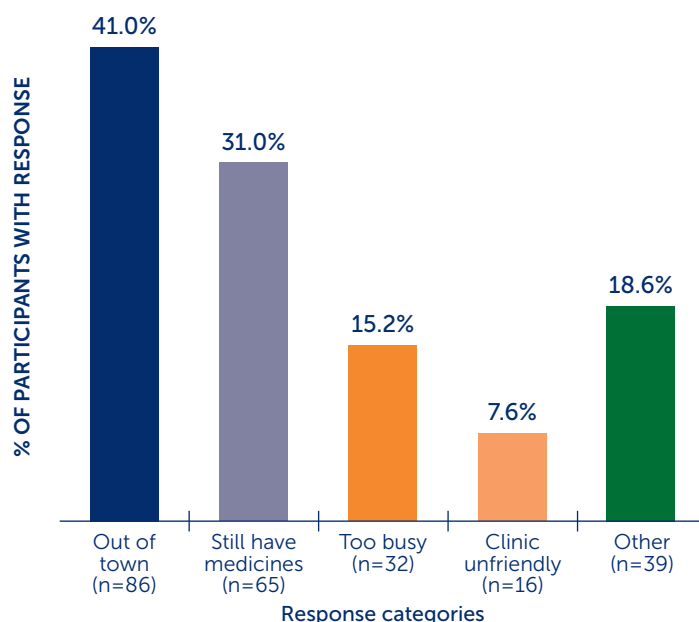
### RESULTS

- 59% (2 170/3 691) of text messages were successfully delivered.
- In the two-way message group, 19.5% (210/1 076) responded to the message.

**Figure 1** ART visit proportions for all clients by treatment interruption stratification (n=3 695).



**Figure 2** Percentage returned to care by reason for missing an appointment (n=210). \*A client could select more than one category.



## KEY FINDINGS

| Key point 1                                                                                                  | Key point 2                                                                                                                                                                                                                                               | Key point 3                                                                                                 | Key point 4                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Return to care was similar in the one-way text message group and the BE-informed two-way text message group. | The messages were able to elicit reasons for missed appointments in some cases. The most frequently cited reasons were being out of town and still having medicines, which highlights that missed appointments may not equate to treatment interruptions. | Response was lower in older participants ( $\geq 50$ years) compared to younger participants (18-24 years). | More interactive means of communicating with clients is important. Some clients replied with questions, to signal a need for interactive platforms like a chatbot or an artificial intelligence conversational agent. |
|                                                                                                              |                                                                                                                                                                                                                                                           |                                                                                                             |                                                                                                                                                                                                                       |

## RECOMMENDATIONS & POLICY IMPLICATIONS

|  |                                                                                                                                                                                                                             |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Further research on the mode, content, and timing of communication is needed to increase return to care.                                                                                                                    |
|  | Explore interactive messaging platforms (i.e. WhatsApp) to allow clients to ask questions and share information in a more personalised manner without the rigid structure of standardised automated two-way text messaging. |
|  | There is a need for research to increase engagement with two-way messages.                                                                                                                                                  |