

## **IMPACT OF SMS ALERTS ON ENROLMENT IN ENHANCED ADHERENCE COUNSELLING AMONG PATIENTS WITH AN HIV VIRAL LOAD $\geq 1,000$ COPIES/ML IN TWO RURAL DISTRICTS IN ZIMBABWE**

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### **Background:**

Among HIV-positive patients on antiretroviral therapy (ART), routine HIV viral load (VL) monitoring helps to detect adherence problems. The World Health Organization (WHO) recommends that patients with a VL  $\geq 1,000$  copies/ml have enhanced adherence counselling (EAC) to prevent treatment failure. We assessed the effect of short messaging system (SMS) alerts sent from the central VL laboratory in Harare to patients with a VL  $\geq 1,000$  copies/ml in two rural districts in Zimbabwe.

### **Methods:**

In June 2014, the laboratory began sending SMS alerts to patients to inform them that their VL results were available. The SMS advised patients with a VL  $\geq 1,000$  copies/ml to return to the clinic as soon as possible, and those with a VL  $< 1,000$  copies/ml to collect their result during their next clinic visit. Using data from clinical and laboratory records, we compared EAC uptake among patients with a VL  $\geq 1,000$  copies/ml whose results were reported from October to December 2013 (before SMS; n = 867); or from August to October 2015 (after SMS; n = 500).

### **Results:**

The proportion of patients who were documented as having at least one EAC session was 20.4% before SMS, and 14.4% after SMS. Of those who had EAC and had the date of the first EAC session recorded, the median time from the laboratory reporting VL results and patients starting EAC was 41 days (interquartile range [IQR]: 27 to 64 days) before, and 30 days (IQR: 15 to 51 days) after, introducing SMS alerts. After introducing SMS alerts, the median time to starting EAC was 13 days (IQR: 10 to 25 days) among patients who responded to the alert, 32 days (IQR: 23 to 39 days) among those contacted by clinic staff, and 48 days (IQR: 20 to 77 days) among those who returned to the clinic at their next scheduled visit.

### **Conclusions:**

Sending SMS alerts to patients with a VL  $\geq 1,000$  copies/ml can substantially reduce the time to starting EAC. The proportion of patients starting EAC is likely to be greater than that reported because staff frequently do not complete the EAC register. Sending SMS alerts to patients with abnormal laboratory results is a simple and efficient way to improve responsiveness to the results, particularly in rural settings remote from the laboratory, and where patients live far from health facilities.