The number of patients initiating antiretroviral treatment (ART) in resource-limited settings continues to increase, leading to concerns that conventional health systems will become increasingly overloaded. Community adherence groups have been suggested as one of these new strategies to extend delivery of services and retention in care. However, a major challenge for HIV/AIDS programs is ensuring timely and consistent linkage and retention of high-risk populations and patients to testing, treatment and care.

Benefits of CommCare For HIV/AIDS

Dimagi has significant experience working on HIV/AIDS projects in numerous countries and contexts. CommCare has been used to identify and track HIV-positive patients, provide behavior change counseling messages, send SMS reminders for antiretroviral therapy (ART), and improve HIV-related follow up adherence.

HIV/AIDS Clinics & Clinicians

Mechanisms are often not in place to support HIV/AIDS referrals, and clinics often lack necessary ARTs

- **Health records** can be sent to referral facilities, decreasing the likelihood of patients falling out of the program due to health worker non-compliance or attrition.
- Applications consider **available ART stock** while performing automatic prescription in accordance with ART regulations, based on entered symptoms.
- **SMS interactions** allow stockouts to be reported before they occur.
- **Program managers** can conduct health surveillance, monitoring, and evaluation of HIV/AIDS programs, activating timely response where treatment is not successful

Community Health Workers

Health workers with case loads of HIV/AIDS patients face several challenges, including limited training, difficulties tracking patients, and

- Mobile applications can supplement health worker trainings with multimedia-enabled **training modules,** empowering health workers with decision making on symptoms
- Armed with real-time, point of care level data, workers can **track attendance** of patients and adherence groups
- Enables workers to trigger defaulter follow-ups and record outcomes
- Automatically **submit referrals** to clinics when necessary
- Workers can deliver **treatment literacy content** multimedia to enhance behavior change communication
- **Supervisors** can detect data irregularities and oversee health workers' activities, including frequency of visits, speed of follow up, number of cases identified, length of counseling sessions, and health workers that aren't adhering to ART protocols

Highlighted Projects

Global Solutions for Infectious Disease, Zimbabwe

With support from Econet Wireless and the Zimbabwean Ministry of Health and Child Care, Global Solutions for Infectious Diseases (GSID) created a mobile system with Dimagi and ODK Diagnostics to better process rapid diagnostic tests for HIV and malaria. The system utilizes CommCare's case

management and reporting features to digitize health workers' workloads, and ODK-Dx's ability to process, analyze, and return RDT results with computer vision algorithms. The system was used in five sites in Manicaland province, including three hospitals and two health centers.

WITS Health Consortium-IMAGE, South Africa
The IMAGE Project combines a microfinance intervention with a gender and HIV awareness curriculum with the aim of improving the social and economic wellbeing of households and reducing the risk of HIV infection and gender-based violence. The IMAGE Project is currently working with 5000 households in 300 rural villages across 4 South African provinces – Limpopo, Gauteng, Northwest and KwaZulu Natal. The nature of the program is highly decentralized – with 35 field staff that work in small, dispersed teams. The project has additional replication sites in Tanzania, Kenya, Zimbabwe and Peru.

CARE, South Africa
In South Africa, CARE provides Integrated Access to Care and Treatment (iACT) literacy programmes for registered clients in local communities. They are using CommCare to register participants and provide follow up services and education for both HIV and TB, including making client referrals to clinics, recording client attendance during iACT sessions, and schedule automatic reminders for client follow up.

Brigham & Women's Hospital, 14 countries in Africa, Asia, & the Americas
Dimagi partnered with Boston's Brigham and Women's Hospital and Social & Scientific Systems, Inc. (SSS) to develop a scalable text messaging (SMS) system to improve HIV medication adherence in 14 countries in Africa, Asia, and the Americas. The SMS intervention is part of an ongoing clinical trial, A5288, supported by the Aids Clinical Trial Group (ACTG). The system was designed to optimize combination therapy for HIV-infected patients, who currently struggle with treatment and have demonstrated resistance to common anti-retroviral drugs.

Médecins Sans Frontières, South Africa
MSF tested a proof of concept CommCare App in the community of Khayelitsha, Cape Town to keep track of patients in ART Adherence Club (AC) clubs. By using the application, MSF staff would be able to track club attendance in real time, make referrals to clinics, and identify defaulters. The system also enabled individual feedback to facilitators based on their mobile activity, and regular email reports of clubs activities available for M&E team, as well as raw data to identify and trigger alerts for high-risk or defaulting clients

CommCare for Community Survivor Support Unit Teams, Malawi
To improve access to protection services and reduce HIV's impact for women and children, UNICEF worked with the Malawi government to established a Community Survivor Support Unit (CSSU) in Malawi's 300 traditional authorities. CSSUs provide psychosocial support, mediation, and referral services for women and children survivors of abuse, exploitation, and neglect. CommCare is strengthening CSSU monitoring, activities, and information systems.