

Implementation of HIV care in Western Kenya during corona virus disease 2019 response

Francesca Odhiambo^a, Edwin Mulwa^a, James Ayieko^a, Jayne Kulzer^b,
Maurice Aluda^a, Purba Chatterjee^b, Raphael Onyango^a,
George Nyanaro^a, Elizabeth A. Bukusi^a and Craig R. Cohen^b

To ensure the continuity of high-quality HIV care in Kisumu County, Kenya during the corona virus disease 2019 pandemic, the Ministry of Health implemented a strategy to promote physical distancing and corona virus disease 2019 case detection. A total of 23 262 (84.2%) of the 27 641 patients eligible for early refill received an extra 3-month supply of antiretrovirals. Across 60 Ministry of Health clinics, average attendance decreased from 1298 to 640 patients per day postintervention, representing a 50.7% reduction.

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As of 13 April 2020, Kenya had 216 confirmed cases of corona virus disease 2019 (COVID-19) out of whom 140 (65%) were imported cases and 76 (35%) local transmissions. The WHO has recommended preventive measures against COVID-19 infection such as frequent handwashing, physical distancing and respiratory hygiene [1]. Like many other countries around the world, the Kenyan government has advised on these and instituted measures including a daily curfew, to avoid crowding and promote physical distancing to significantly reduce the impact of the epidemic. Nevertheless, Kenya has ~1.3 million adults and ~139 000 children living with HIV who require regular healthcare [2], most through the public health system provided by the Ministry of Health – the same front-line facilities engaged in mitigating the COVID-19 epidemic. The counties bordering Lake Victoria carry the brunt of the HIV epidemic. Especially in high-burden counties like Kisumu County (HIV-seroprevalence: 17.5% [2]), if people living with HIV

avoid health facilities due to fear of COVID-19, or if health facilities become overwhelmed by COVID-19 patients, the HIV care system risks failure leading to higher morbidity and mortality.

To prepare for COVID-19 in Kisumu County, Family AIDS Care & Education Services (FACES) [3], a Centers for Disease Control & Prevention/President's Emergency Fund for AIDS Relief-funded implementing partner, developed a strategy in collaboration with the Ministry of Health to decongest HIV care and treatment clinics to promote physical distancing whereas ensuring triage for early COVID-19 case detection. These strategies included applying standard precaution for all patients and implementing administrative controls to protect both healthcare workers and patients at 60 Ministry of Health facilities [4], and ensure continued high-quality HIV care and treatment services for ~50 000 persons living with HIV in Kisumu County [5]. The strategy included the

^aCentre for Microbiology Research, Kenya Medical Research Institute, Nairobi, Kenya, and ^bDepartment of Obstetrics, Gynecology and Reproductive Sciences, Bixby Center for Global Reproductive Health, University of California San Francisco, San Francisco, California, USA.

Correspondence to Francesca Odhiambo, Centre for Microbiology Research, Kenya Medical Research Institute, Nairobi, Kenya. Tel: +254 722 646 783; e-mail: fodhiambo@kemri-ucsf.org
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Table 1. Baseline and post intervention comparison of average daily clinic attendance, N = 60 facilities.

Average daily clinic attendance	Baseline 9–13 March 2020 (/day)	Post intervention 6–9 April 2020 (/day)	Percentage change (%)	Significance 95% CI
Smaller facilities <1000 patient enrolled in HIV care, N = 46	467	310	33.6	29.5–38.0
Larger facilities ≥1000 patient enrolled in HIV care, N = 14	831	329	60.4	57.0–63.7
All facilities, N = 60	1298	640	50.7	48.0–53.4

CI, confidence interval.

following interventions: first, provide multimonth pre-packed refill antiretroviral treatment (ART); second, screen all patients at arrival for COVID-19 symptoms and isolate if necessary; third, patient spacing within the health facility waiting bays; fourth, provide handwashing stations and sanitizers at service points; fifth, conduct daily health talks on COVID-19 and sixth, scale-up community distribution of ART.

Through a coordinated effort with the Kenya Medical Supplies Authority, the Ministry of Health boosted their ART stock by acquiring an extra shipment of antiretrovirals which was distributed to all 61 FACES-supported clinics. Between 20 and 23 March 2020, 26 535 (96.0%) patients with a next clinic appointment prior to 30 April 2020 were contacted via text or phone and requested to return to the clinic pharmacy to pick a 3-month supply of ART. By 2 April 2020, 23 262 (84.2%) of 27 641 patients eligible for early drug refill of ART presented to a pharmacy. Subsequently, across the entire program, average clinical attendance has since declined from 1298 to 640 patients per day – representing a 50.7% decline in daily patient volume leading to decongestion of waiting areas and reduced contact with healthcare workers. Daily HIV clinic attendance markedly declined in larger health facilities by 60.4% while clinic attendance in smaller facilities declined by 33.6% (Table 1).

Decongested health facilities are now able to focus efforts on patients requiring in-person visits that include patients newly enrolled into HIV treatment, and HIV-infected pregnant, breastfeeding, viremic, child and adolescent patients. In addition, health workers are better able to cope with challenges imposed on the health system by COVID-19. For the next couple of months if not longer, the COVID-19 pandemic burden on the health system is likely to redefine care not only for HIV patients but all patients on follow-up for chronic illnesses. The pandemic is likely to affect sections of the population disproportionately with those in the lowest socio-economic classes, who comprise a significant proportion of patients supported by FACES. Policy makers, ministries of health and implementing programs are expected to map out different approaches to ensure patients on long-term follow-up for chronic illnesses continue to access high-quality care. For consistency and uniformity in care, the different stakeholders should seek convergence in the approaches for chronic care delivery and guidelines should be developed for standardization of care. In the

interim, programs like FACES and local health authorities are likely to come up with innovative approaches to ensure patients continue to access quality care and clinics are decongested for infection prevention.

In conclusion, decongestion of the HIV clinics to reduce transmission of severe acute respiratory syndrome coronavirus-2 at the clinics is feasible and achievable within a short time span using existing resources. However, Ministries of Health need to continue to evaluate programmatic and patient-level outcomes to ensure that the strategies employed do not reverse the gains made in providing near-universal HIV care and treatment.

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Conflicts of interest

There are no conflicts of interest.

References

1. World Health Organization. *Coronavirus disease (COVID-19) advice for the public*. Geneva: WHO; 2020, <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public> [Accessed on 6 April 2020].
2. NASCOP. *National AIDS and STI Control Programme (NASCOP), Preliminary KENPHIA 2018 report*. Nairobi: NASCOP; 2020.
3. Lewis Kulzer J, Penner JA, Marima R, Oyaro P, Oyanga AO, Shade SB, et al. **Family model of HIV care and treatment: a retrospective study in Kenya.** *J Int AIDS Soc* 2012; **15**:8.
4. Family AIDS Care & Education Services (FACES) website, University of California San Francisco, CA; <https://faces.ucsf.edu/impact> [Accessed 1 April 2020].
5. World Health Organization. Infection prevention and control when COVID-19 is suspected: interim guidance. Available at: [https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125) [Accessed 6 April 2020].