

# Gertrude's Afya/Sunshine program

Impact of COVID19 on healthcare services at Githogoro clinic in Nairobi, Kenya

Date: 11 November 2020

## Background

Gertrude's Children's Hospital and PharmAccess Foundation have a multi-year collaboration on healthcare financing for primary care and specific conditions (e.g. HIV, tuberculosis, maternal and child health) for people living in informal settlements in Nairobi, Kenya. This article describes the effects of the recent COVID19 pandemic on the utilization of care within two programs running simultaneously at the Gertrude's outreach clinic in the Githogoro area in Northern Nairobi. One program, known as Sunshine, provides additional HIV care (e.g. nutrition and complementary laboratory testing) over and above the government's standard program. The other program, known as Afya, provides primary care. In both programs, patients contribute a co-payment for the services they receive and the rest is paid for by a sponsor. On average, patients pay 19% of the cost of a visit Sunshine and 38% for Afya. The programs both run on the mobile health exchange platform known as M-TIBA. M-TIBA allows the clinic to bill both the patients and the donor from their mobile money accounts. This billing process generates information about the utilization of healthcare within the programs: visits, diagnoses, treatments and costs of care. By early November 2020 over 4,500 people were involved in the two programs: 620 in Sunshine and 4,331 in Afya (some people are in both programs).



## COVID19 and the utilization of care

In many countries, it has been reported that COVID19 pandemic and the subsequent restrictions imposed by governments, limited the consumption of regular healthcare services<sup>1</sup>. Concerns were voiced over the necessary care for patients with chronic conditions and, in particular about the required care for HIV patients<sup>2</sup>.

### Relevant dates

On 13 March 2020, the first case of COVID19 was identified in Kenya.

On 27 March, the government imposed a nationwide curfew (from 7PM to 5AM) in an effort to reduce the spread of the virus.

On 6 April the government instated a cessation of movement between Nairobi and the rest of the country to stop the virus from spreading to other parts of the country.

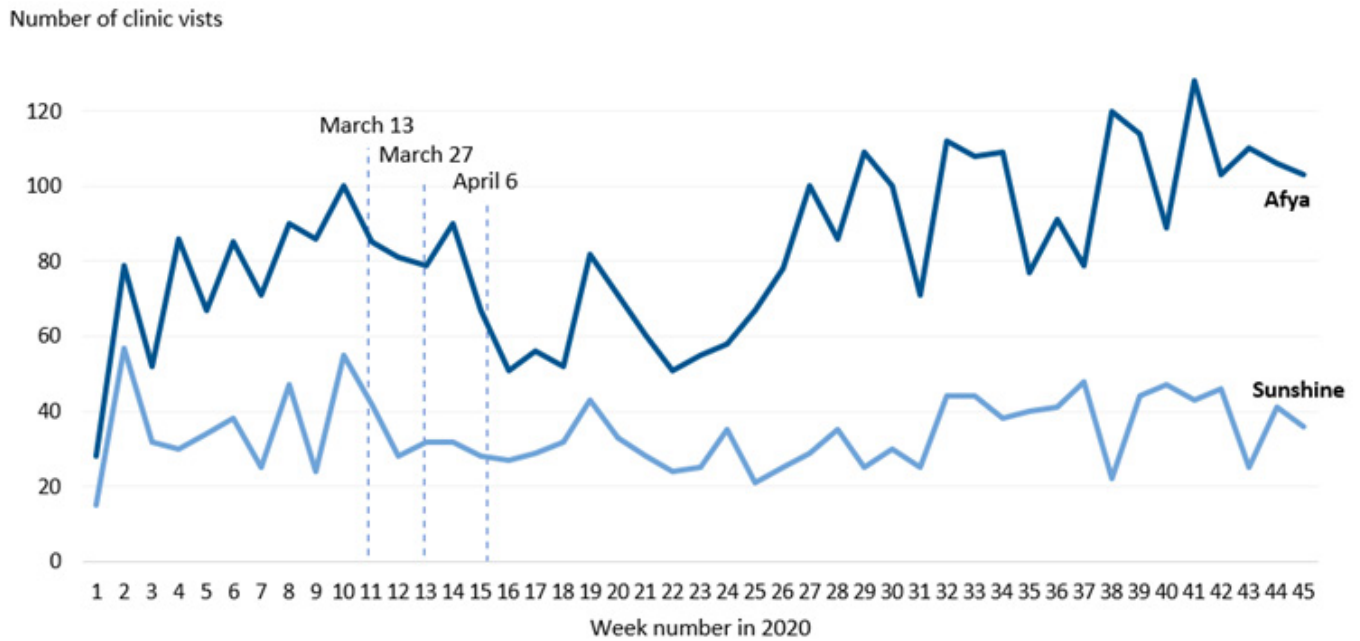
## The effects on healthcare utilization at the clinic

The Sunshine and Afya programs provide us with an opportunity to understand, albeit at a relatively small scale, the effects that the pandemic had on healthcare consumption of a poor urban population and within the specific segment of HIV patients within that population. We witnessed a drop in patient visits to the Githogoro clinic between April and June 2020 (week 14 to 27). The drop in the Sunshine program (16% between Q1 and Q2 2020) is similar to the one in the Afya program (19%) as can be seen in Figure 1 below.

<sup>1</sup> COVID-19 significantly impacts health services for noncommunicable diseases, World Health Organization, News Release, 1 June 2020

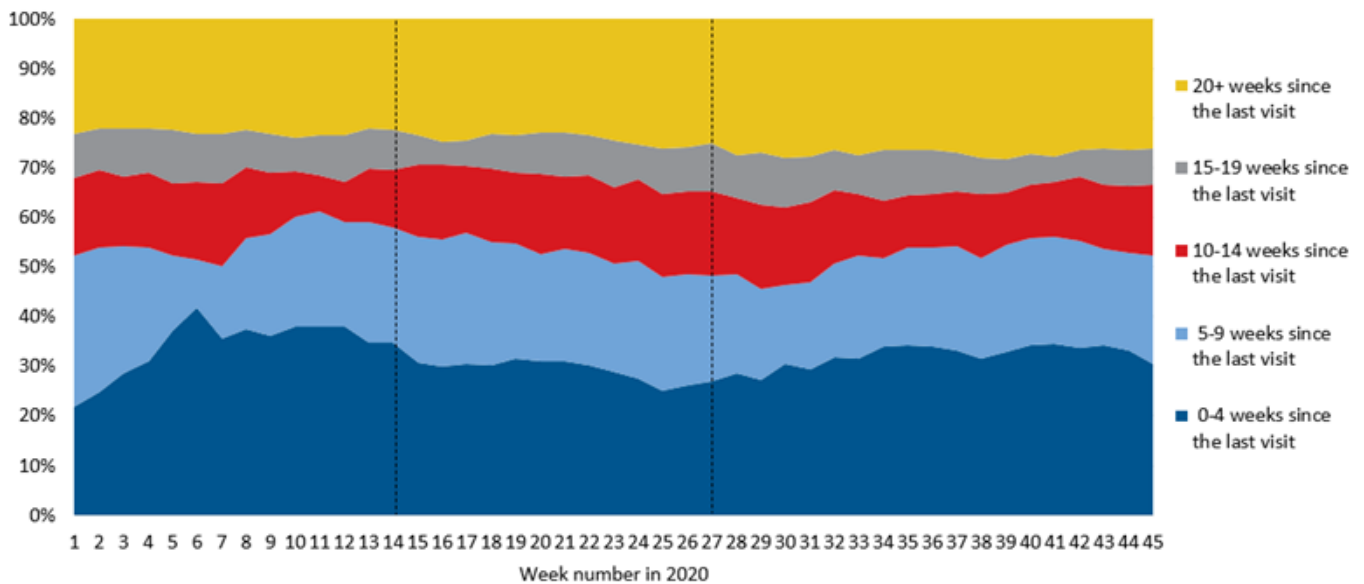
<sup>2</sup> Maintaining HIV care during the COVID-19 pandemic, The Lancet, Comment, 6 April 2020

**Figure 1: numbers of clinic visits for Gertrude's Afya and Sunshine programs at Githogoro clinic**



HIV patients (in the Sunshine program) seem to have postponed their visits to the clinic, possibly due to a fear of contracting COVID19 during clinic visits as can be seen in figure 2. From April through June (week 14 to 27) we see the time between clinic visits increase substantially for HIV patients.

**Figure 2: % of people by the number of weeks between repeat visits for HIV patients in the Sunshine program at the Githogoro clinic**



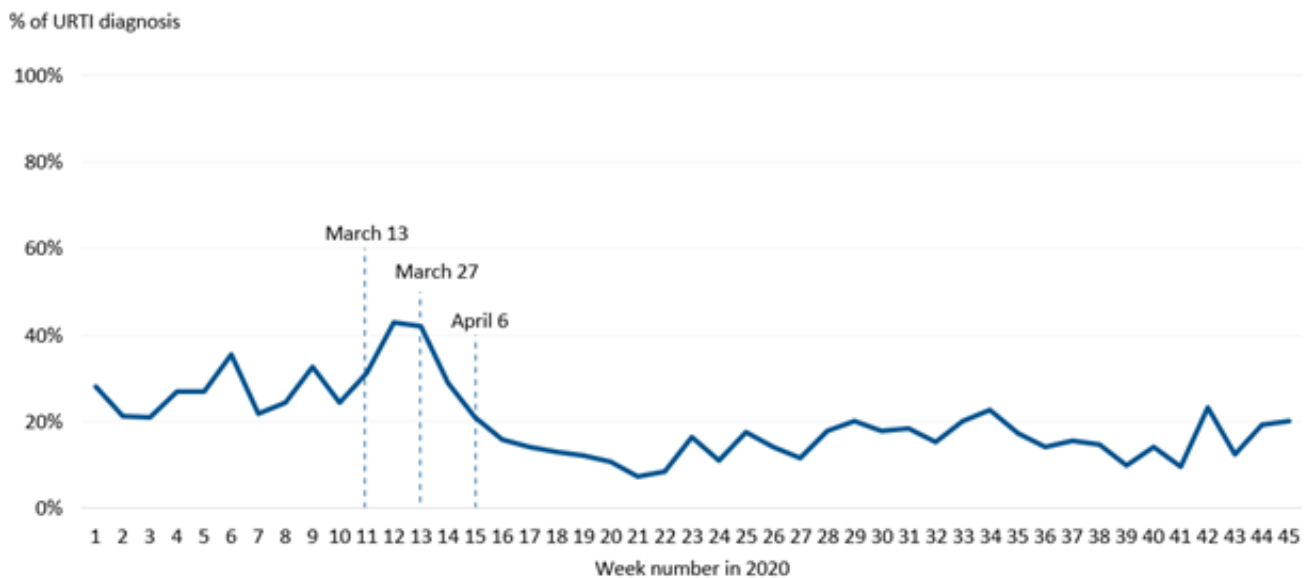
In order to try to counter the reduction in visits, Gertrude's and PharmAccess decided to offer free teleconsultations to all members of the Sunshine and Afya programs. Starting in June 2020, members were sent SMS messages encouraging them to call a toll-free

telephone number with their health issues. The number connected the members with the Githogoro clinic where an agent answered simple questions (e.g. opening hours) or directed members towards more specialist teleconsultation services, if required. Since June, 399 calls were made until early November to the clinic of which 170 resulted in an actual teleconsultation with a peak in July when about 10% of all consultations at the clinic were handled over the telephone. In 15% of the cases, the callers reported symptoms consistent with upper respiratory tract infections (URTI).

### The effects on diagnoses at the clinic

With a dip in visits coinciding with the outbreak of COVID-19, what medical conditions did the members of the program neglect? If we compare the diagnoses before COVID-19 with those after the start of the pandemic (see box for relevant dates) we see a clear reduction in diagnoses for URTI. These diagnoses are down by almost 9% when the cessation of movement in and out of Nairobi is declared (see Figure 3). It appears that people are staying away from the clinic with precisely those symptoms that are associated with a possible SARS-Cov-2 infection! Whether this points to a fear of infecting others or to a fear of the COVID-19 diagnosis itself is unknown.

Figure 3: % of URTI diagnosis in the Afya program at the Githogoro clinic



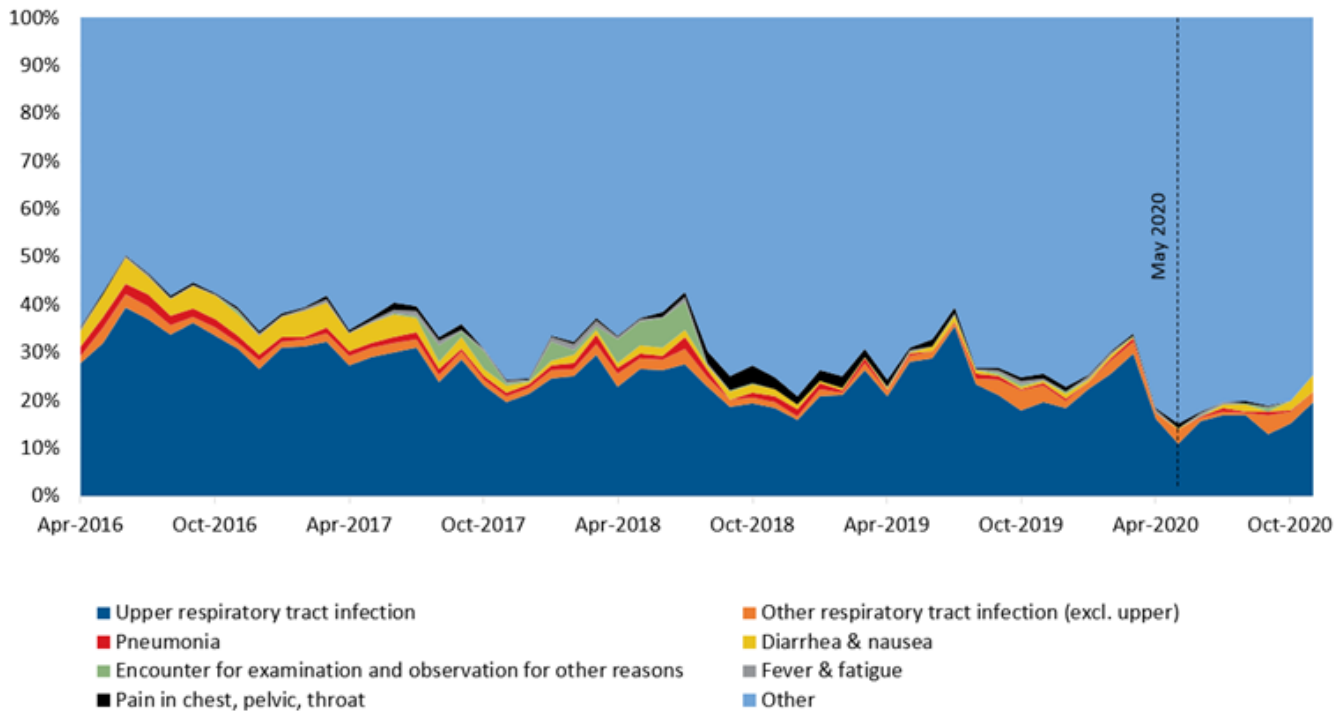
Due to the reduction in URTI diagnoses, a mix of other diagnosis have a relatively higher incidence.

### Controlling for seasonality

To make sure that we were not dealing with a seasonal effect, we looked at our diagnostic data for the Githogoro clinic over the past five years (for multiple programs). This shows some seasonality in the URTI diagnoses, with increased incidences usually coinciding with the cold and damp season in Nairobi in the months June to August. The rest of the year generally shows lower incidences of URTI but without specific seasons standing out. There is a seasonal dip in all diagnoses (and visits) in December as people tend to travel upcountry to celebrate the holidays.

The reduction in URTI diagnoses coinciding with COVID-19 is remarkable as the percentage of URTI diagnoses relative to all diagnoses fell to 11% in May 2020, while seldom dropping below 20 percent during that same month in the previous years (see Figure 4).

**Figure 4: % of selected diagnoses at Githogoro clinic**



## Conclusion

The COVID-19 pandemic has affected the use of regular healthcare services in Kenya as it has in other countries. Images of empty hospital waiting rooms were shared on local news sites<sup>3</sup>. The Githogoro clinic's experience is somewhat similar although a drop in visits of 17% did not translate into an emptying out of the waiting room. It would appear that most of the visits that were skipped were precisely for symptoms that are associated with COVID-19 are avoiding or postponing care. The teleconsultation calls that were offered as an alternative also suggest that there was not a sudden drop in URTI cases, but that people actively decided to stay away from the clinic with such symptoms.

As for the HIV patients in the Sunshine program, many of them have also stayed away from the clinic during the second quarter of the year. As there is no clear alternative source of treatment for this group, there is a risk that they have interrupted their antiretroviral treatments due to the pandemic with possible consequences for their own health, and mortality as well as public health<sup>4</sup>.

<sup>3</sup> 'Coronaphobia' drives patients from hospitals, PD online, 28 April 2020

<sup>4</sup> Potential effects of disruption to HIV programmes in sub-Saharan Africa caused by COVID-19: results from multiple mathematical models, the Lancet, September 2020