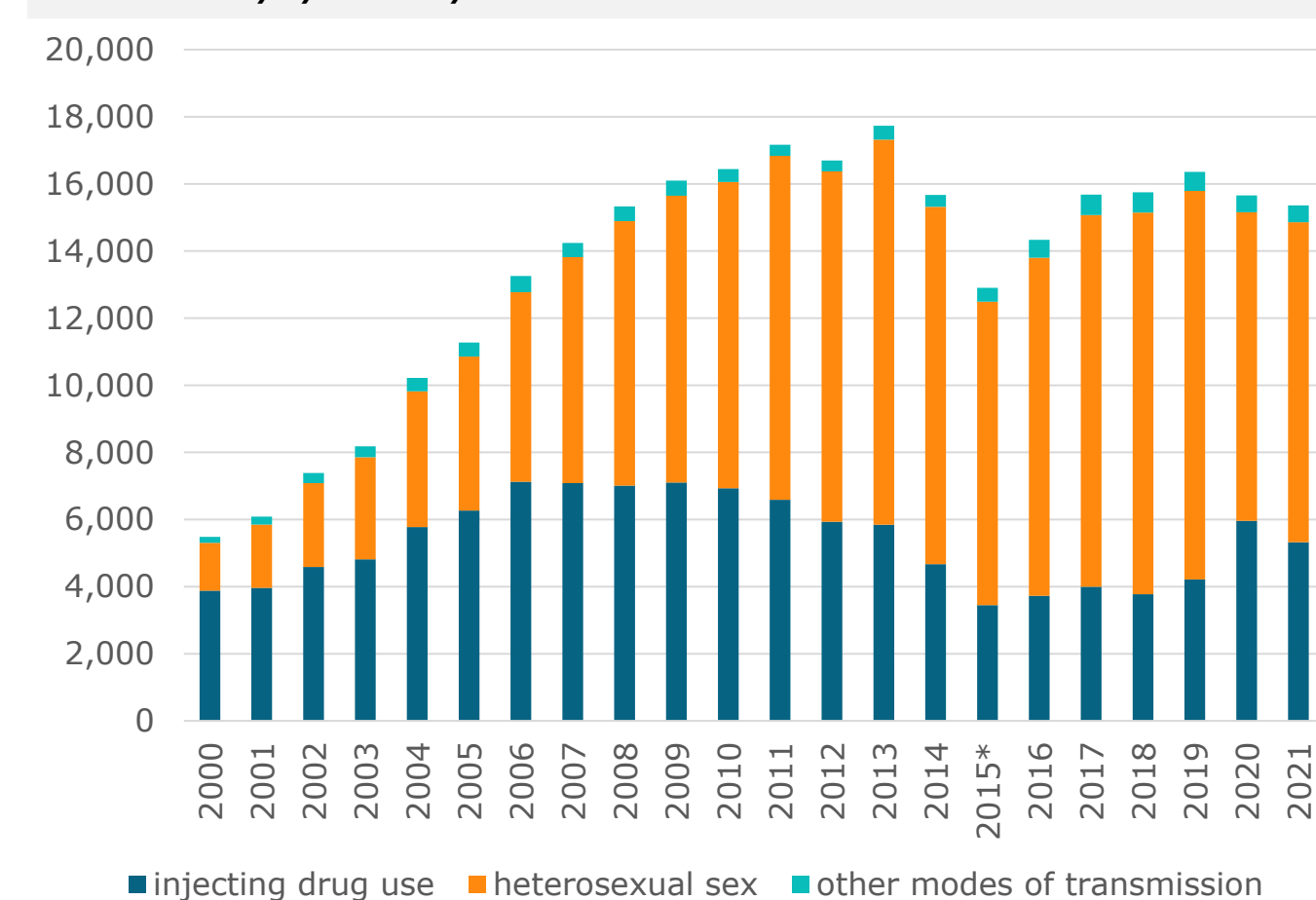


Introduction

Eastern Europe and Central Asia (EECA) is one of the few regions globally where the HIV epidemic continues to grow. UNAIDS estimates that between 2010 and 2020, the number of new adult HIV infections decreased globally by 23%, whereas in EECA, there was a 72% increase, the highest rate among all regions. Ukraine is one of the countries most affected by HIV in Europe, with an adult prevalence of 1.0%. It has experienced multiple crises since it emerged from the Soviet Union in 1991 including two revolutions, the 2014 Crimean annexation, and the ongoing war which has severe implications for the capacity and effectiveness of the public health system.

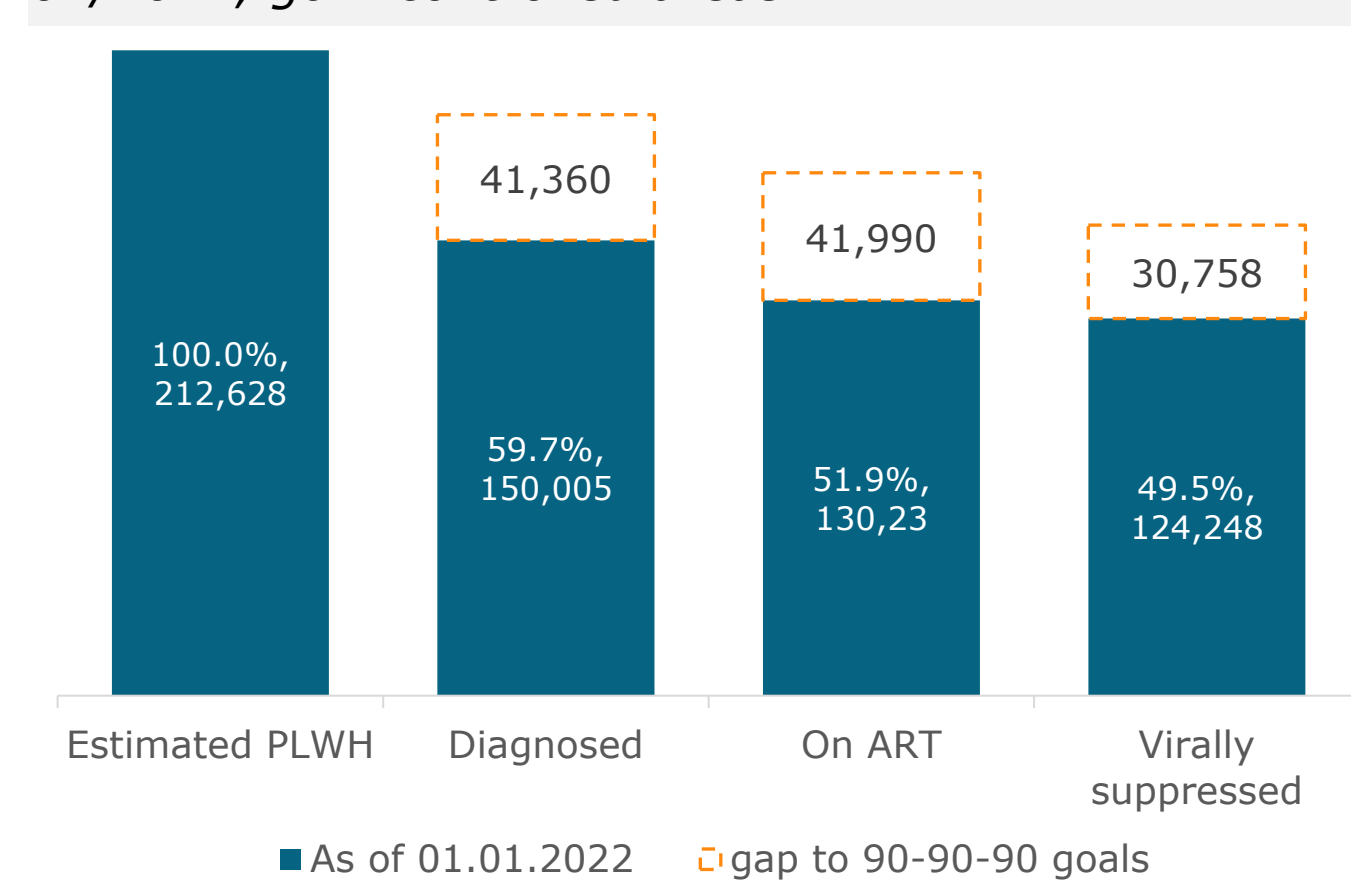
The epidemic was initially driven by transmission among people who inject drugs (PWID). The number of new HIV cases registered in health facilities decreased from the peak 21,177 in 2011, to 15,658 in 2020. The proportion of cases reported to have acquired HIV through heterosexual intercourse has steadily increased, reaching 71% in 2016 and remained stable until 2020 when it decreased to 59% due to resurgence of injecting drug use-related cases (Figure 1).

Figure 1. Number of officially registered HIV cases in Ukraine by year by attributed mode of transmission.



There has been a significant progress in HIV diagnosis and treatment area, however the national HIV care cascade reveals large gaps between the number of people diagnosed with HIV, the number in active care, on ART, and virally suppressed (Figure 2).

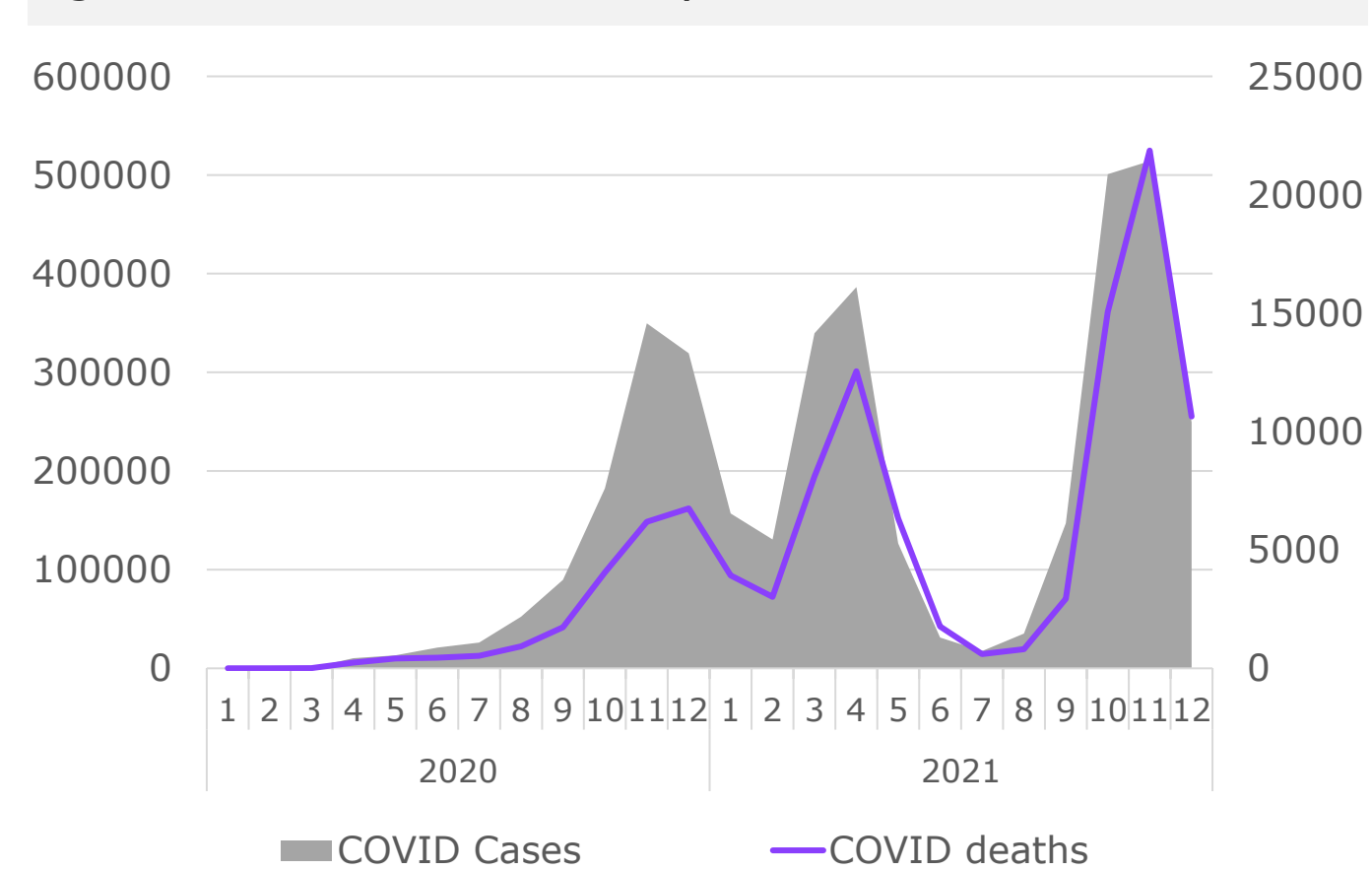
Figure 2. National HIV care cascade in Ukraine 01/2022, gov.-controlled areas.



COVID-19 Epidemic

The COVID-19 pandemic has significantly affected societies, economies, and health systems in Ukraine. Multiple health services were disrupted due to the re-orientation of health workforce, infection control measures, economic difficulties, and limitations in public transportation. In the HIV field, disruption to health services means that people are not being as widely tested, diagnosed, or treated for HIV. In addition to the direct impact, the COVID-19 pandemic has revealed systemic issues in health systems in general, and in HIV programming in particular.

Figure 3. COVID-19 monthly new cases and deaths.



Methods

A mixed methods evaluation study assessed the trends in provision of HIV services in Ukraine to verify the impact of COVID-19 and identify HIV service gaps. Data on key indicators were obtained via official requests to program implementers, including the MOH and recipients of The Global Fund grants, statistical analysis of quantitative data, and a qualitative component (not included in this report). The service provision data were aligned with the COVID-19 epidemiologic data. Three periods (04-12/2020 [pre-COVID], 04-12/2020 [early-COVID], 04-12/2021 [late-COVID]) were compared using descriptive statistics and Average Annual Percent Change.

Results

Figure 4. Monthly number of HIV tests and % of positive results in community settings.

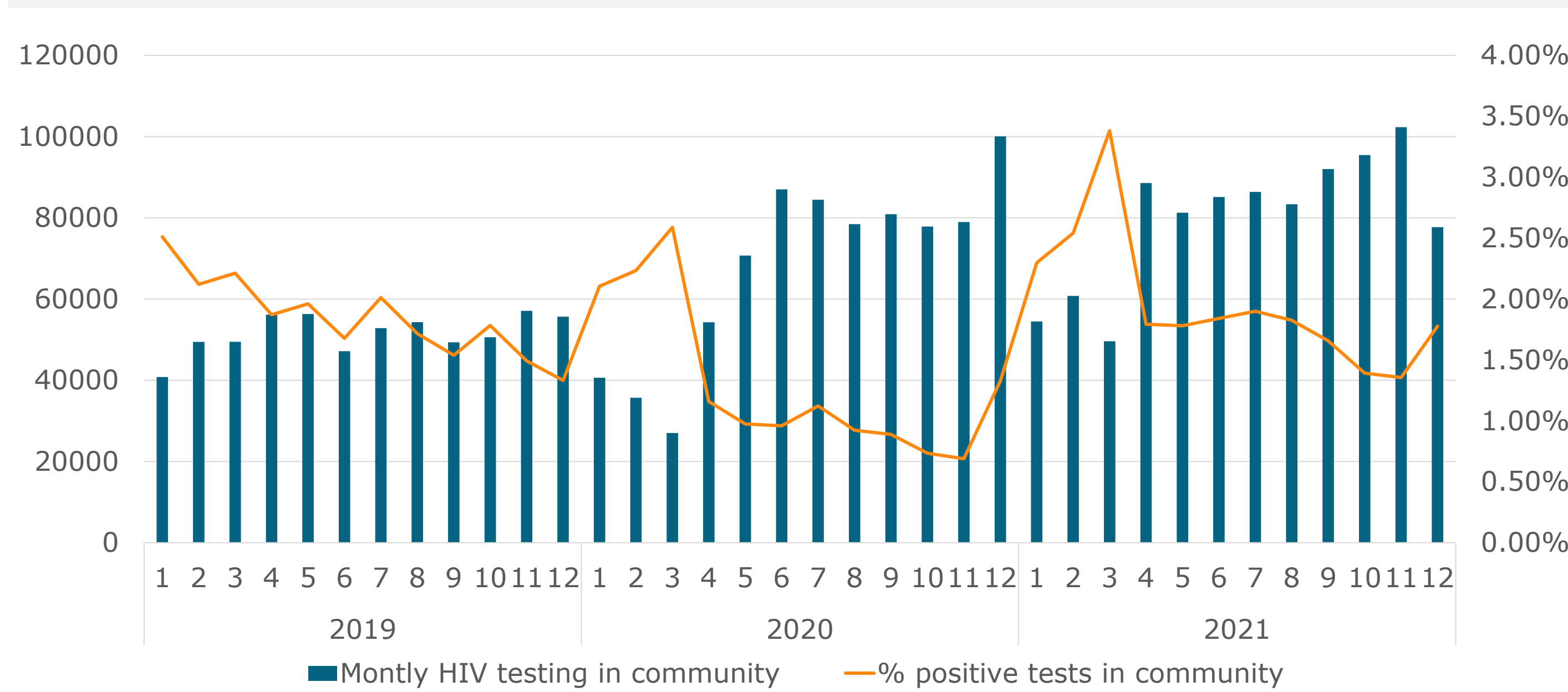


Figure 5. Quarterly number of HIV tests and % of positive results in health facility settings.

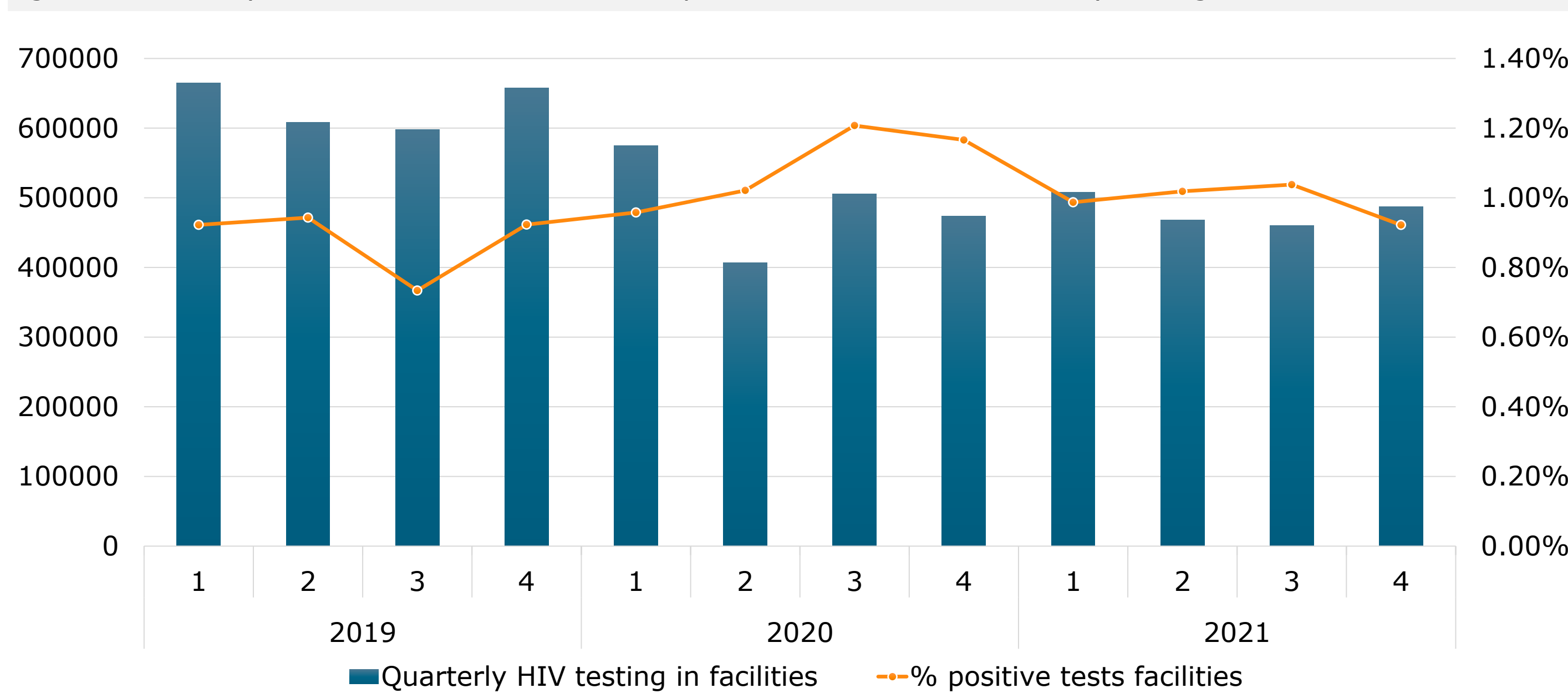


Figure 6. Quarterly number of HIV tests in health facility settings and monthly new ART patients.

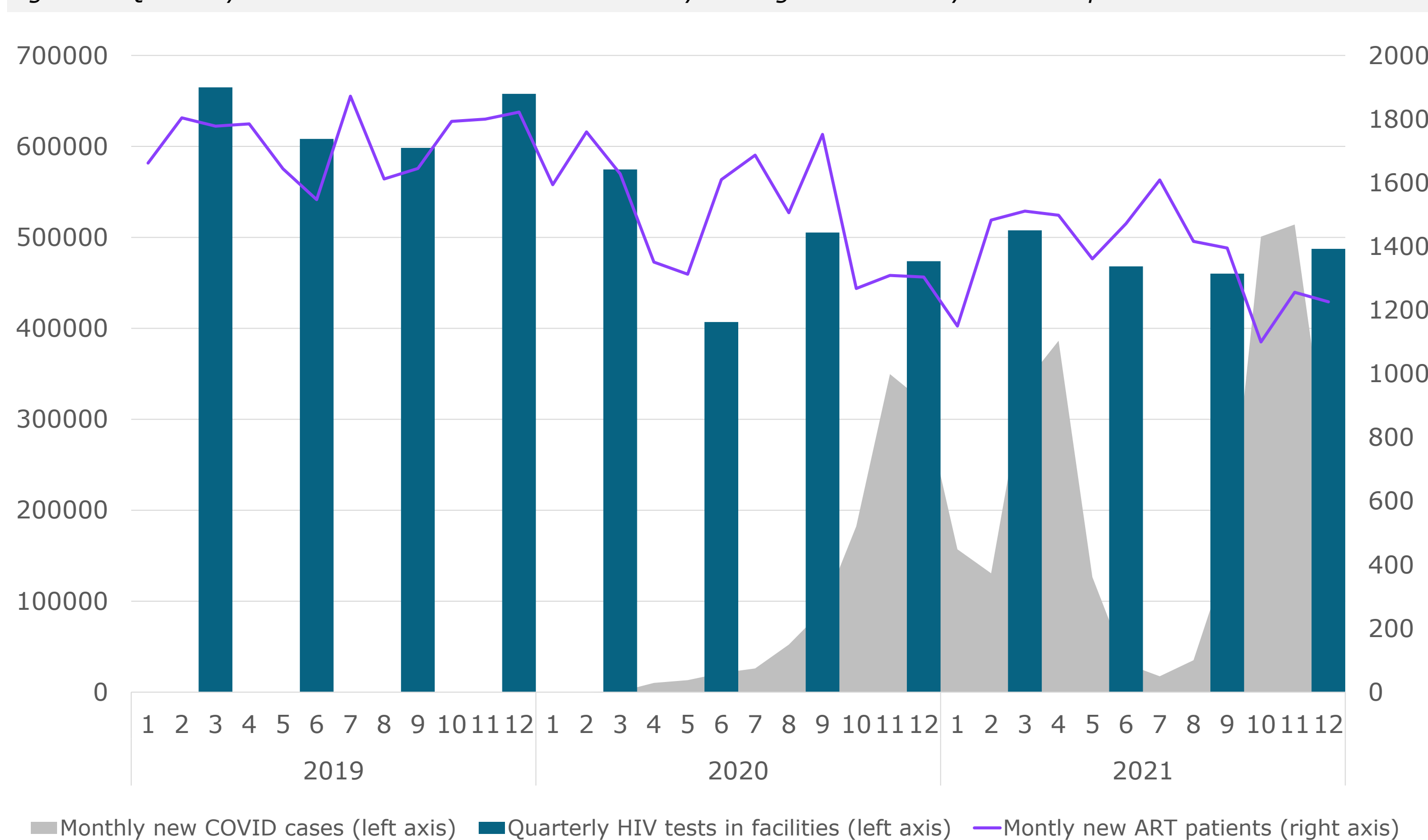
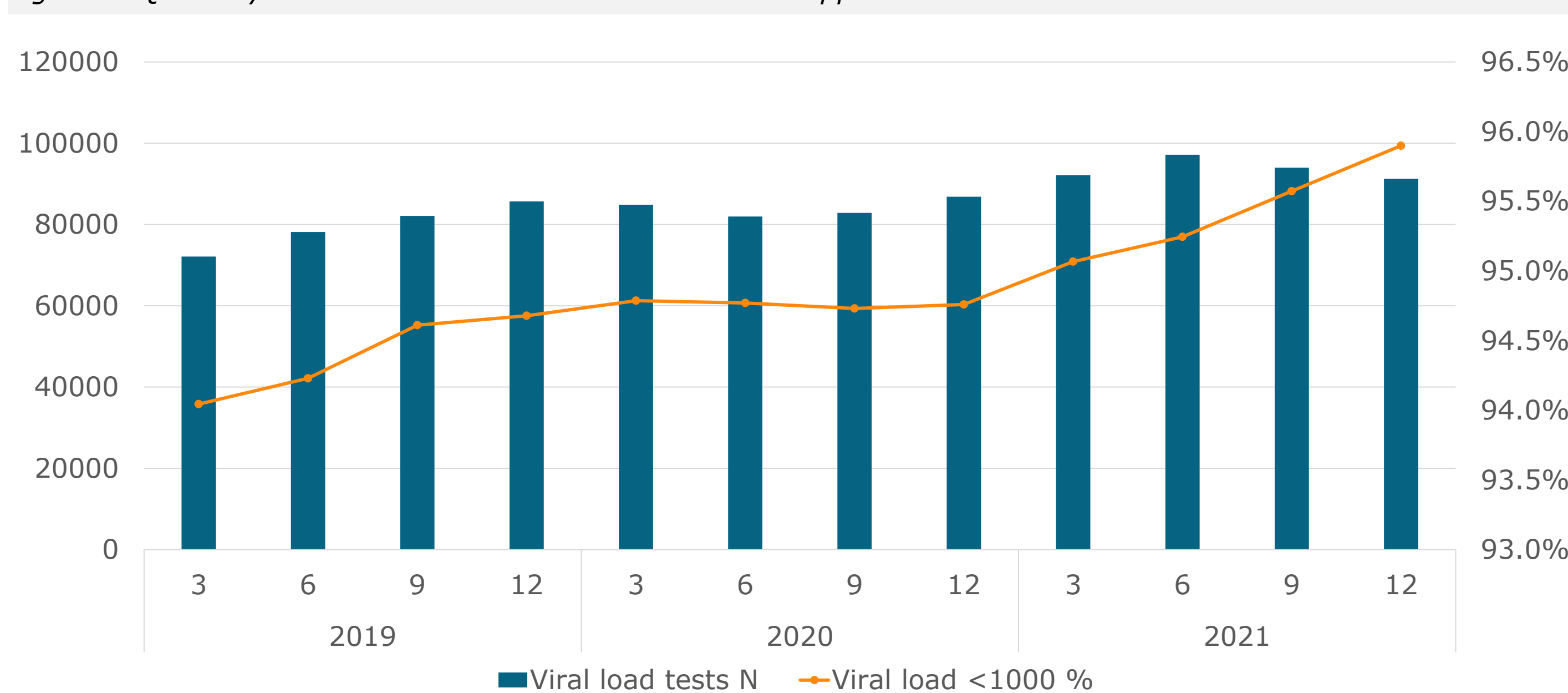


Figure 7. Quarterly number of viral load tests and % with suppressed viral load.



Conclusions

- The COVID-19 pandemic had a major impact on the delivery of HIV services in Ukraine
- NGO-based coverage decreased in the first weeks following the introduction of anti-epidemic restrictions in all countries. But due to rapid response, the total number of tests did not decrease significantly and in some cases increased
- The pandemic served as a trigger for introduction of innovations such as self-testing and tests distribution by mail
- The number of tests in health facilities has significantly decreased due to restrictive measures during lockdowns, lack of public transport, decrease in attendance of clinics
- Not only the COVID epidemic but also program changes impacted the trends in community-based testing (transition between Primary recipients, cancellation of incentives, implementation of index testing, implementation of self testing).
- However, the number of NGO-based testing has increased overall
- The number of patients registered for care slightly decreased due to decrease in facility-based testing
- As the biggest decrease occurred during the lockdown and during the peak of morbidity at the end of the year, it can be explained by an increased workload at health facilities
- ART initiation had similar dynamics, which is explained by decrease in registration of cases and the load on health facilities
- In order to maintain the continuity of services and retain patients, new practices (delivery of ARVs by mail) were rapidly introduced resulting from collaboration among the state and non-governmental sectors

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In pre-COVID period, the average monthly percent change of the number of tests performed by the NGOs was 0.62%. In early COVID period it increased to 7.94%; and in 2021 it decreased to 5.11%.

This change was mostly explained by the programmatic changes (transition of community-based testing program from one Principal Recipient to another, which also cancelled the incentives for testing providers). The trend in HIV-positive testing yield is also explained by the drop in HIV testing and lower yield in one PR's program. The COVID pandemic had no obvious effect on testing in community settings (Figure 4).

In 2020, the number of HIV tests in health care facilities, as compared to 2019 significantly decreased (-22.5%) (from 2,529,344 to 1,960,769) (Figure 5). The drop became especially evident in the second quarter of 2020 – down to 406,890 tests. This trend is likely caused by the COVID-19 pandemic, specifically its impact on health care facilities. The number of tests in 2021, as compared to 2020, has slightly increased - from 1,923,468 to 1,960,769.

The average quarterly percent change for the 2-4 quarters of 2019-2021 was negative - (-0.36%), (-6.23%) and (-1.35%) respectively. The average quarterly drop in the number of tests was especially evident in the 2-4 quarters of 2020, a period marked by the start of the pandemic and rapid spread of the COVID-19 virus. The average quarterly percent change for HIV positive tests in the 2-4 quarters of 2019-2021 are as follows: (+0.03%), (+6.78%) and (-2.25%). Meaning that the efficiency of HIV detection (yield) was on an increase in the 2-4 quarters of 2019, 2020 (at the time of most rapid spread of the pandemic), however it has somewhat decreased in 2021.

The number of patients who initiated ART in 2020 compared to 2019 has decreased (-12.9%) (from 20,764 to 18,082) (Figure 6). In 2021 the number of patients who started ART further decreased by (-8.9%) to 16,477. This decrease may be explained by a decrease in the number patients who received confirmatory testing in health facilities, as a result of the COVID-19 pandemic.

The average monthly percent change of the number of patients initiating ART each month in the 2-4 quarters of 2019 was (+0.27%). However, the indicator declined by (-2.44%) in early COVID and by and (-2.3%) in late COVID period.

The total number of patients on ART continued to increase gradually, from 102,745 in 01/2019 to 130,219 in 12/2021. However, the growth has slowed from (+0.84%) in pre-COVID period to (+0.52%) in early COVID, to (+0.56%) in late COVID period.

Together with the growth of patients on ART the number of viral load tests for HIV has also increased: 318,049 tests in 2019, 336,541 tests in 2020, and in 2021 – 374,534 tests (Figure 7). Correspondingly, the viral load testing coverage was: 73.1%, 70.4% and 73.6%. Suppressed viral load test results were registered in the following proportion of patients tested: 94.4%, 94.8% and 95.4% respectively.

The average monthly percent change of the number of patients who underwent viral load testing in the was (+5.91%) in pre-COVID, (+0.76%) in early COVID, and (-0.32%) in late COVID periods.

Recommendations

- To ensure availability of anti-crisis mechanisms to supply drugs to institutions and to deliver to patients
- To adjust the mechanisms of subcontracting by the governmental PR
- To continue decentralization of all services
- To consolidate the experience of cross-sectoral cooperation
- To scale up the implemented innovations aimed at involving and retaining patients in the cascade of services (including self-testing, distribution of tests through mail, targeted outreach, motivational counseling, etc.
- To review the procedures of diagnosis confirmation and ART initiation, full-scale Test-and-Start implementation including interventions for KPs
- To develop and implement the methodology of screening of the ART interruption risk for timely provision of adherence interventions