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During the 2020, the COVID-19 pandemic disrupted the delivery of HIV prevention and treatment services globally. To mitigate the negative consequences of the pandemic, service providers and communities adapted and accelerated an array of HIV interventions to meet the needs of people living with HIV and people at risk of acquiring HIV in diverse geographical and epidemiological settings. As a result of these adaptations, services such as HIV treatment showed programmatic resilience and remained relatively stable in 2020 and into the first half of 2021. To review lessons learned and suggest which novel approaches to sustain, UNAIDS convened a virtual consultation on Feb 1–2, 2022, which was attended by a range of stakeholders from different areas of global HIV response.

Introduction

The effect of epidemics and pandemics extends beyond direct effects from the diseases concerned. By the end of June, 2022, COVID-19 had caused more than 500 million cases and 6 million deaths, both widely considered to be underestimated. Early concerns were that HIV incidence and AIDS-related mortality could increase from the disruption of treatment and prevention programmes. In 2020 and 2021, WHO issued recommendations for managing and simplifying HIV and other health services in response to COVID-19. Stakeholders took diverse actions to mitigate negative consequences of the pandemic and document lessons learned, and HIV treatment continuity appears to have remained stable during 2020.6–9

UNAIDS convened a virtual consultation on Feb 1–2, 2022, to assess the effect of COVID-19 on HIV services; review innovations, adaptations, and accelerations in practice; suggest which novel approaches to sustain; and propose further implementation research. The meeting was co-sponsored by WHO, the International AIDS Society (IAS), The Global Fund, Columbia University’s ICAP programme, and the President’s Emergency Plan for AID Relief (PEPFAR). Representatives from networks of people living with or at risk of HIV, and young people, people living with HIV, and people from key populations—people who inject drugs; transgender people, gay, bisexual, and other men who have sex with men; and sex workers—shared experiences related to the provision of services during the COVID-19 pandemic. They reported challenges including job losses and dropout or exclusion from school, and increased social vulnerability, poverty, and homelessness. Sexual harassment and gender-based violence were also reported to have increased.10 Young people reported needing accurate information about COVID-19, but also about other health, economic, and social issues. For people who use drugs, interruption of harm reduction services due to closure of services and restrictive regulations were reported as frequent by meeting participants. Sex workers reported increased harassment, violence, reduced HIV prevention and support services, reduced income because of lockdowns and travel restrictions, and reduced access to social protection and emergency government responses due to criminalisation.

How HIV services adapted

Three important themes emerged during the pandemic: resilience and bounce-back capacity of many HIV services; the commonality of mitigation interventions in different technical areas; and the fact that some adaptations were introduced before COVID-19, but only scaled up during COVID-19, such as multimonth dispensing of ART. The acceleration of approaches, such as HIV self-testing, multimonth dispensing of ART and PrEP and other differentiated service delivery models, flexible harm reduction, and mental health services, were examples of successful adaptations. Community- and community-led interventions, use of telemedicine (i.e., the provision of remote clinical services), the generation of demand for health services,
and integration of COVID-19 information, vaccination, and provision of PPE were other key innovations and adaptations. Community networks reported that, in many settings, community-led responses were the first to ensure that the needs of their community were met, including the transportation of antiretrovirals from clinics or hospitals to homes, and the distribution of needles, syringes, condoms, and PPE. Community networks also assisted with medical care and transportation when ambulances were unavailable. Community networks fundraised to ensure the basic needs of people who lost jobs or housing during the pandemic, often without additional external support.28–30

Facility-based modifications aimed to decongest healthcare settings and reduce visits, travel, and physical interactions.15,21–23 Several adapted practices have been highlighted as essential by both The Global Fund and an IAS journal supplement.31,32 Data from Nigeria suggested that a focused effort on HIV testing and treatment, despite COVID-19, could result in rapid expansion of HIV testing and treatment.33,34 Appropriately funded programmes, including those with important external funding, did better than programmes with less international support, particularly for key populations.

Regarding services providing antiretrovirals for adults, adolescents, and children, essential adaptations were multiloch dispensing, community-based treatment initiation and maintenance, and PrEP initiation after HIV self-testing. Community organisations led by peers were essential in providing psychosocial support and collecting data, and most importantly ensuring that the most disproportionately affected groups, such as key populations, could receive uninterrupted access to services. Use of information technology was essential for outreach and generating demand for HIV services. Community services were able to integrate services for comorbidities. Knowledge gaps included how to deal with advanced HIV disease, how to address needs of key populations, optimum monitoring of providers who use PrEP, generating tailored approaches to HIV prevention supplies, clarification of ideal intervals between ART refills, and how to integrate with and assure COVID-19 services.

Essentials for vertical transmission prevention focused on decentralisation and task sharing and shifting (ie, redistributing duties from highly trained clinical health-care providers to providers with less training). Multimonth dispensing of drugs was tied to antenatal care and early infant diagnosis, defining the role of long-acting ART preparations, and elimination of user fees in west and central Africa that impede access to services.

Direct service delivery that was community-led addressed not only ART, but also food, hygiene packs, and other essentials. Community-led newsletters conveyed important information, including about COVID-19 prevention. Virtual platforms provided social support and helped address mental health requirements. For people who use drugs, rapid decarceration was shown to be feasible as a COVID-19 risk-reduction strategy relevant to this population that is over-represented in detention facilities. Adaptations also included simplified prescribing, take-home opioid agonist therapy, increased access to naloxone, and the provision of food and PPE.

Conclusions

Implementation science should address acceptability, sustainability, and cost of such adaptations in the long term. Several adaptations could be implemented in high-income settings. Overall, these adaptations emphasise client autonomy, self-care, and decentralisation of healthcare provision to the community level. Increased use of electronic communications, virtual platforms, and mass and social media for health education, staff supervision, and client monitoring can lessen direct interaction with health facilities. Further differentiated service delivery approaches are emerging, such as same day PrEP after self-testing for HIV, and in community settings. Efficiencies could be gained by further integration of health service delivery. Continued investment in the strengthening of health systems will be important to sustain the scale up of multimonth dispensing in resource-limited settings.

This collective experience has reiterated the centrality of communities in the HIV response, the importance of maintaining standards of human rights, service access, and addressing HIV-related stigma and discrimination, the need to address unmet requirements of key populations, children, adolescents, and men, and the crucial role of community-led organisations. The effect of the COVID-19 pandemic on HIV service delivery has provided important lessons for further upscaling of HIV services, as well as preparedness for future health shocks.

Contributors

EM, PDG, PG-F, LF, and KMD conceptualised the manuscript; EM approved the final version. MD, WES, IZ, AK, SC, FRA, CM, EC, AG, NM, AT, PDG, and P’A/C-C provided a critical review. WEL, IZ, AK, SC, and PDG provided commentary. KMD wrote the original draft, including review and editing.

Declaration of interests

We declare no competing interests.

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