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## Coronavirus disease 2019 (COVID-19) is a healthcare dilemma for human immunodeficiency virus (HIV)–positive individuals in Pakistan

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*To the Editor*—Coronavirus disease 2019 (COVID-19) has been spreading worldwide since the first case was reported in Wuhan, China, in early December 2019. The outbreak was declared a pandemic by the World Health Organization (WHO) on March 12, 2020. On February 26, 2020, the Ministry of Health, Government of Pakistan, confirmed the first case of COVID-19 in Karachi.<sup>1</sup>

According to the Centers for Disease Control and Prevention (CDC), a syndemic is defined as “synergistically interacting epidemics,” that is, 2 or more concurrent or sequential epidemics or disease clusters in a community, which exacerbates the prognosis and burden of disease. Although the Asia and the Pacific region has 5.8 million human immunodeficiency virus (HIV)–positive patients and the coronavirus disease 2019 (COVID-19) pandemic has spread across Asia and the Pacific region, limited data are available on infection among HIV-positive patients. The acquired immunodeficiency syndrome (AIDS) caused by HIV has become a severe public health issue worldwide, particularly in underdeveloped nations. Approximately 37.8 million people are living with HIV, and in 2020, ~680,000 people died from AIDS-related illnesses globally. In Pakistan, ~200,000 individuals are infected with HIV.<sup>2</sup> The Joint United Nations Program on HIV/AIDS (UNAIDS) is in charge of the global campaign to eradicate AIDS as a public health hazard by 2030. A new report from the

Global HIV Prevention Coalition, which summarizes the state of HIV prevention programs during the COVID-19 pandemic, highlights significant vulnerabilities, dangers, and severe service interruptions. However, HIV service improvements and adjustments are achievable.<sup>3</sup>

The UNAIDS Global AIDS program provides evidence that HIV-positive persons are more vulnerable to COVID-19, which can be prevented by getting COVID-19 vaccination and HIV treatment. The new report details how lockdowns due to COVID-19 and other restrictions have severely hampered HIV testing, resulting in sharp reductions in HIV diagnoses, care providers, and treatment initiations in several countries.<sup>4</sup> The UNAIDS Deputy Executive Director for Programs Shannon Hader stated that COVID-19 has disproportionately affected HIV prevention programs and cultural obstacles for the individuals most left behind, such as critical populations, teenaged girls, and young women.<sup>3</sup>

Despite a global decline in the number of new HIV infections, Pakistan is seeing an increase in the number of HIV cases.<sup>5</sup> Pakistan has had several HIV outbreaks since 2003, making it Asia’s second fastest-rising HIV nation.<sup>6</sup> A variety of socioeconomic factors, such as poverty, illiteracy, and unemployment, likely contribute to HIV transmission in Pakistan.<sup>7</sup> Also, HIV infection involves male sex workers (MSWs) rather than female sex workers, which indicates the variation in regional sex practices in Pakistan. AIDS infections among intravenous drug users (IDUs) are also increasing; IDUs are a potential source of HIV transmission because users share drugs and needles and can pass the virus on to sexual partners, resulting in HIV replication. Pakistan appears to be following the “Asian Epidemic” model as a result.<sup>7,8</sup>

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In Pakistan, the National AIDS Control Program has registered 240,000 HIV cases, and 55.62% of these patients on antiretroviral therapy (ART) in 50 ART centers.<sup>9</sup> The main reasons reported for the late initiation of HIV treatment were feeling well and not experiencing symptoms, lack of willingness to communicate their HIV test findings, and fear of stigma and prejudice in their community.<sup>7</sup> According to program statistics from Nai Zindagi, a non-governmental organization (NGO) that provides harm-reduction services to IDUs in 38 districts of Pakistan, the HIV prevalence of HIV among IDUs reached 46.1% between 2011 and 2019.<sup>10</sup> To eliminate the AIDS pandemic by 2030, UNAIDS has adopted a fast-track approach that aims to achieve the 95–95–95 goals by 2030: 95% of people living with HIV to know their status, 95% to be linked to ART treatment, and 95% of those in care to be virally suppressed.<sup>11</sup> A high health-related quality of life (HRQoL) is a multifaceted term that incorporates independent, physical, spiritual, social, psychological, and environmental health of people living with HIV (PLWH). In Pakistan, only 14% of PLWH are aware of their HIV status; 10% of those infected are receiving treatment; and data on viral suppression are lacking. Pakistan is far from meeting UNAIDS 95–95–95 target. PLWH who are receiving ART have good HRQoL, but they report being significantly depressed.<sup>12</sup>

COVID-19 has caused widespread health-system disruption, leading to the cancellation of many regular health treatments in Pakistan. All resources and infrastructure dedicated to HIV/AIDS management have been transferred to the COVID-19 pandemic. PLWH are more likely to suffer from comorbid diseases and to be older; thus, they are more vulnerable to COVID-19.<sup>13</sup> Data regarding how SARS-CoV-2 and HIV coinfection influence the health of PLWH are also scarce.<sup>14</sup> PLWH in the United States, the United Kingdom, and South Africa have an 80% greater risk of death from COVID-19 infection,<sup>15</sup> but no data on PLWH with COVID-19 or fatalities caused by COVID-19 are available in Pakistan.<sup>10</sup> However, COVID-19 also offers a significant challenge to PLWH in Pakistan, where the threat of HIV is increasing and ART uptake is not promising.<sup>14</sup> Quarantine, social distance, and community confinement have limited access to routine HIV testing and have hindered HIV care and ART continuation. In the context of the COVID-19 pandemic, PLWH face additional biological and social vulnerabilities, especially in settings where they suffer stigma and prejudice as well as inadequate healthcare services.<sup>14</sup> Better care for this population can be achieved through proper health policies, pharmacist intervention, awareness, timely research, and evidence-based action. Interpersonal communication and mass media can be used to raise awareness about the prevention and control of HIV/AIDS, and interpersonal communication is more successful than mass media at doing so.<sup>16,17</sup>

The COVID-19 vaccine should be more widely available to people with underlying diseases, but unfortunately Pakistan, a lower- to middle-income country (LMIC), is having difficulty vaccinating people.<sup>18</sup> Public awareness efforts about personal preventive measures should be encouraged among PLWH to prevent syndemic effects. To control all of the elements of the outbreak and to manage the country's increasingly serious health crisis, physicians, public health professionals, and the policy makers must work together.

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