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## Integrating human rights principles to strengthen health systems for pandemic prevention, preparedness, and response among key populations in Indonesia

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People living with HIV (PLHIV) and key populations, including people who use drugs, sex workers, LGBTQ+ communities, and imprisoned individuals, represent groups with heightened vulnerabilities that are significantly magnified during public health emergencies such as the COVID-19 pandemic. These populations are disproportionately exposed to both the direct health impacts of the virus and systemic barriers that limit access to essential health services.<sup>1</sup> One of the most critical aspects is access to antiretroviral therapy (ART), which is vital to suppress viral load and maintain immune system function in PLHIV.<sup>2</sup> Equally important are other health services such as harm reduction programs, sexual and reproductive health care, and mental health support, which together ensure the physical, emotional, and psychological well-being of these groups.

The pandemic disrupted these essential services through a convergence of structural and logistical challenges. In many countries, emergency containment measures such as lockdowns, quarantine protocols, and mobility restrictions severely disrupted medical supply chains, impeding the regular distribution of ART and other life-saving medications.<sup>3</sup> Concurrently, the reallocation of health resources toward the COVID-19 response led to the closure or scaling down of specialized clinics for HIV treatment, substance use rehabilitation centers, and community-based health programs.<sup>4</sup> These disruptions not only compromised the continuity of care for PLHIV and key populations but also heightened their vulnerability to HIV transmission and adverse health outcomes, reinforcing the fragility of disease-specific health delivery systems when confronted with multisectoral crises.

In addition to structural limitations, social determinants of health, such as stigma, discrimination, and misinformation, intensified the exclusion of PLHIV and key populations during the pandemic. Pre-existing societal stigma was exacerbated by pandemic-related fears, leading to further avoidance, marginalization, and in some cases, denial of care by healthcare providers.<sup>5</sup> Misinformation, often propagated via media and online platforms, contributed to harmful narratives that blamed certain communities for the spread of COVID-19 or mischaracterized their health risks. These dynamics created a climate of mistrust and fear, discouraging individuals from seeking timely medical assistance and deepening the isolation experienced by many during lockdowns.

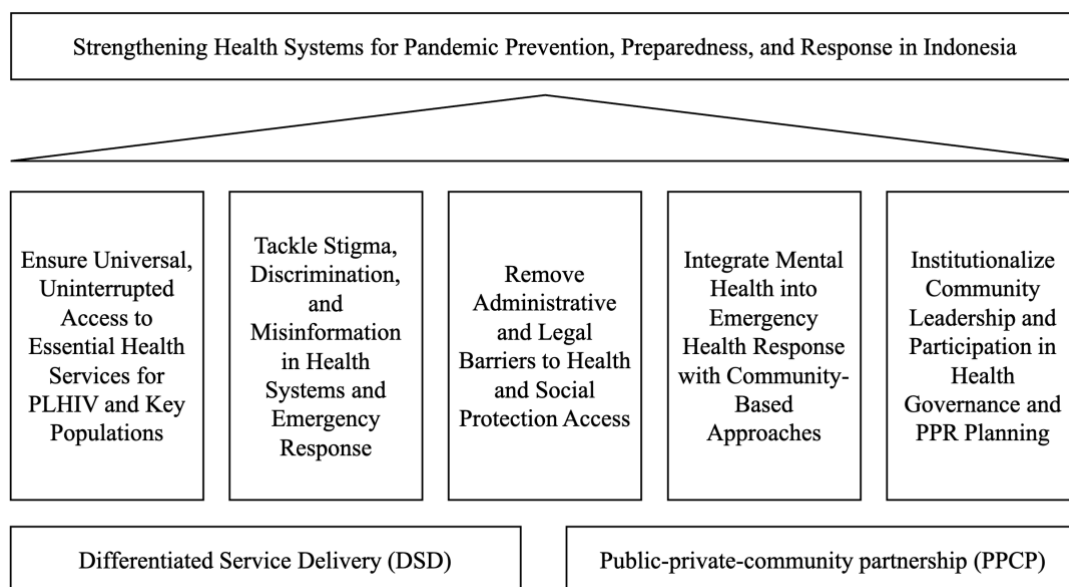
The administrative and bureaucratic barriers further compounded these challenges. Many individuals within these populations lack official identification or reside in informal settlements, shelters, or correctional facilities, contexts that often fall outside the reach of national social protection and health systems. Hence, they were frequently excluded from emergency relief measures such as food distribution, cash transfers, and vaccination programs.<sup>6</sup> These exclusions underscore how rigid and exclusionary administrative systems can

reproduce and deepen health inequities, especially when access to life-saving interventions is contingent upon formal documentation or legal residency status.

On the other hand, the mental health toll of the pandemic on PLHIV and key populations was equally severe. Social isolation resulting from quarantines and the disruption of peer support systems aggravated pre-existing mental health conditions, particularly depression and anxiety. For many, community-based networks and support groups provide essential psychosocial support; without these, individuals were left without critical coping mechanisms.<sup>7</sup> Yet mental health services, already underfunded and under-prioritized in many health systems, remained largely inaccessible, especially in remote or marginalized areas. This created a dual burden of psychological distress and reduced access to mental health care, leaving many to cope in silence.

The COVID-19 pandemic also exposed the limitations of fragmented health systems. Services for HIV, tuberculosis (TB), hepatitis, and now COVID-19 often operate in isolation, leading to inefficiencies and missed opportunities for integrated care.<sup>8</sup> The pandemic demonstrated how these siloed approaches can weaken a country’s ability to respond swiftly and holistically to overlapping health crises. For PLHIV and key populations, this fragmentation resulted in reduced service availability, limited coordination, and increased barriers to care, ultimately weakening both pandemic response and long-term health outcomes.

The global HIV response offer valuable lessons for strengthening health systems through the integration of human rights principles which can be integrated in the pandemic response. The HIV movement has long championed universal access, non-discrimination, community participation, and accountability, principles that are essential for effective pandemic prevention, preparedness, and response (PPR).<sup>9</sup> The meaningful involvement of PLHIV and key populations in health policy development has shown to enhance system responsiveness, ensure culturally appropriate services, and build trust between communities and institutions. Thus, the integration of HIV services into PPR is not only a pragmatic necessity but also part of efforts to achieve a more inclusive, equitable, and resilient health landscape in the face of future global health challenges.



**Figure 1. Theory of Change to strengthening health systems for Pandemic Prevention, Preparedness, and Response (PPR) in Indonesia**

The Theory of Change (Figure 1) for strengthening health systems for pandemic prevention, preparedness, and response in Indonesia is grounded in a rights-based and community-centered approach, particularly for PLHIV and key populations. At its foundation, the model relies on two interlinked strategies: Differentiated Service Delivery (DSD) and Public-Private-Community Partnerships (PPCPs). DSD enables the health system to deliver flexible, client-centered services that respond to the specific needs of marginalized communities, while PPCPs ensure that multisectoral collaboration, including civil society, government, and private sector actors, underpins inclusive decision-making and service implementation.

Building on these foundations, the model prioritizes five key actions. First, it seeks to ensure universal and uninterrupted access to essential health services for PLHIV and key populations, even during public health emergencies. Second, it aims to tackle stigma, discrimination, and misinformation within health systems and emergency responses. Third, it emphasizes the removal of administrative and legal obstacles that hinder access to health and social protection, especially for those lacking formal identification or legal status. Fourth, the model integrates mental health into emergency health responses through community-based, culturally appropriate support systems. Finally, it calls for the institutionalization of community leadership and participation in health governance and PPR planning, ensuring that affected populations are actively involved in shaping the policies and systems that impact their lives. Together, these components create a coherent, inclusive, and resilient framework for health system strengthening that recognizes the central role of communities and human rights in ensuring equitable pandemic preparedness and response.

The government must ensure universal, equitable, and uninterrupted access to essential health services for people living with HIV (PLHIV) and key populations the DSD model can be implemented with different strategies such as multi-month ART dispensing, community-led distribution mechanisms, mobile outreach, and telemedicine platforms—tailored to the needs of high-risk and hard-to-reach populations.<sup>10</sup> Alongside the integration of PPCPs to strengthen last-mile service delivery, leveraging the capacity and reach of civil society organizations, private providers, and grassroots networks to ensure that care reaches underserved and criminalized communities.<sup>11</sup> Meanwhile, stigma issues can be also minimised through DSD platforms, community-led peer education, provider training, and awareness campaigns, particularly when developed in partnership with media, schools, religious leaders, and private influencers under a robust PPCP framework.<sup>12</sup> These multisectoral collaborations are crucial to amplifying accurate, rights-based messaging and transforming public attitudes that have long hindered equitable health access.

DSD approaches should also be expanded to address the administrative barriers mentioned above by delivering services directly to informal settlements, shelters, and detention centers such as mobile clinics, peer outreach, and drop-in centers that operate independently of rigid bureaucratic systems. Simultaneously, PPCPs should support the development of inclusive, interoperable data-sharing platforms that connect civil society actors, government systems, and digital service providers—ensuring that all individuals, regardless of legal status, are included in national health and social protection schemes, with safeguards to protect their privacy and rights.

Mental health and psychosocial support (MHPSS) must also be integrated as a core pillar of pandemic response. PLHIV and key populations often face compounded psychological burdens due to pre-existing stigma, isolation, and service disruption.<sup>13</sup> Despite growing needs, mental health services in Indonesia remain critically underfunded and inaccessible, especially in rural and marginalized areas. A rights-based, community-led mental health response is necessary. DSD can be adapted to decentralize MHPSS through

community wellness hubs, task-shifting to trained peer supporters, and the deployment of culturally relevant digital mental health tools. Strategic PPCPs—linking government agencies, civil society organizations, digital innovators, and academic institutions—can co-develop scalable, localized MHPSS interventions that sustain mental health care before, during, and after emergencies.

Finally, embedding community leadership and participation in health governance and PPR planning is vital for ensuring responsiveness, accountability, and trust.<sup>14</sup> DSD should be repurposed not only for service delivery but also as a governance mechanism, enabling communities to co-design, monitor, and evaluate programs. In parallel, formalizing PPCPs is essential to institutionalize the presence of community representatives in national and subnational health planning bodies, funding allocations, and emergency response coordination platforms.

Effort on strengthening Indonesia's health systems for PPR necessitates the adoption of a rights-based and inclusive framework that foregrounds the specific vulnerabilities and needs of people living with HIV and key populations. The COVID-19 pandemic has revealed critical structural weaknesses and inequities, highlighting the imperative to reorient health systems toward equity, resilience, and community engagement. By institutionalizing DSD models and fostering robust PPCPs, the health system can address persistent barriers to care, including stigma, discrimination, legal exclusion, and service fragmentation. Integration of mental health and psychosocial support into emergency response frameworks and ensure the meaningful participation of affected communities in health governance are essential for enhancing system responsiveness and accountability. These strategies not only contribute to more equitable health outcomes during public health emergencies but also lay the groundwork for a more resilient, participatory, and rights-affirming health system in the long term. Drawing on the lessons of the global HIV response, this approach offers a pragmatic and ethically grounded pathway to advancing health equity in the face of future pandemics.

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