

# HIV AND THE CLIMATE CRISIS: SAFEGUARDING HEALTH IN A CHANGING WORLD

A FRONTLINE AIDS EVIDENCE BRIEF



DECEMBER 2023

## ABOUT FRONTLINE AIDS

Frontline AIDS wants a future free from AIDS for everyone, everywhere. Around the world, millions of people are denied HIV prevention, testing, treatment and care simply because of who they are and where they live.

Together with partners on the frontline, we prioritise approaches that realise and protect human rights, working to break down the social, political and legal barriers that marginalised people face, and innovate to create a future free from AIDS.



## ACKNOWLEDGEMENTS

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While the evidence and framework presented here were informed by the work of many different organisations and individuals, this brief and the fundamental thinking about the framework are built upon the paper 'Pathways linking climate change and HIV/AIDS: An updated conceptual framework and implications for the Philippines' by Renzo R. Guinto, Joshua Joel F. Cahatol, Kris Yvan, Mari S. Lazaro and Anna Flora Natividad Cruz Salazar, published in The Journal of Climate Change and Health in 2022<sup>1</sup>.

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## BACKGROUND

The climate crisis<sup>a,b</sup> manifests in distinctly different ways in different parts of the world. For instance, the Caribbean, Mozambique, and Bangladesh have all seen devastating cyclones that cause evacuations and immediate displacement, while the Horn of Africa is experiencing a long-burn drought that does not result in immediate displacement but rather has a slow impact on crops, economies, and health. Water scarcity and rising temperatures add to pre-existing migration and conflict in the MENA region, putting further strain on governments. Organisations and communities across the Frontline AIDS partnership are experiencing the impact of climate change in different ways. The same people who are most affected by HIV are often most affected by climate change. Yet they are the least served by existing climate action.

Motivated by urgent warnings and perspectives from our partners across the world, we began looking at the links between climate change and HIV in 2021. We developed a draft Frontline AIDS Climate-HIV Framework to sort and present the emerging research around these connections, validated by the experience of our partners and donors. We have also been talking to partners to understand if emerging adaptations and responses to other recent crises, such as the COVID-19 pandemic, war in Ukraine and the 2020 Beirut explosion, can be used to prepare for increased climate events. We are doing this because we need to be ready. We must ensure the

gains made in our goal to end AIDS for everyone everywhere by 2030 are not lost.

This brief sets out how the climate crisis impacts HIV and provides a full narrative to support the Frontline AIDS Climate-HIV Framework. Both this brief and the framework present published evidence and first-hand evidence from across the Frontline AIDS partnership. At the end of the brief, evidence from our partners AMS, Zvandiri and MENAHRA show how HIV responses can be maintained and adapted in the context of a deepening climate crisis.

This brief is part of a wider programme of work by Frontline AIDS to explore what this intersection means for the HIV response and for us to take leadership to respond as a global partnership.



## HOW THE CLIMATE CRISIS IMPACTS HIV

While the links between climate change and some health areas are well documented,<sup>2,3</sup> HIV is under-recognised in research and practice. Climate change doesn't directly influence the HIV virus itself, but the changes it generates in environmental and social systems impact everything from how HIV infections are transmitted and contracted to how likely or unlikely people are to live well with HIV and the level of AIDS-related deaths.

*It is clear that the climate crisis is increasing HIV transmission rates and worsening the health outcomes of people living with HIV.*

Climate change could be devastating for the HIV epidemic globally. Modelling based on temperature data and data from 400,000 people across 25 countries in sub-Saharan Africa in a 'business as usual' scenario for carbon emissions shows **between 11.6 and 16 million additional cases of HIV by 2050** as temperature continues to rise. This is an increase in HIV prevalence of 1.4–2.1 percent.<sup>4</sup> An analysis of biomarker data relating to 200,000 people's HIV status across 19 African countries finds that **HIV infections rise by 11% after every drought** in HIV-endemic rural areas.<sup>5</sup> Another study assessed blood samples taken between 2015 and 2016 in Malawi found that a **single drought in the last five years increased HIV prevalence by around 15%**.<sup>6</sup> Heavy rainfall has also been correlated – but not quantified – to increased HIV infections.<sup>7</sup>

a. We acknowledge that climate change is a subset of the larger issue of environmental change. We focus on climate change explicitly in this brief as it is, per the UN, 'the defining crisis of our time and is happening even more quickly than we feared.'

b. We use the term 'climate crisis' throughout the brief to emphasize the urgency of the response needs.



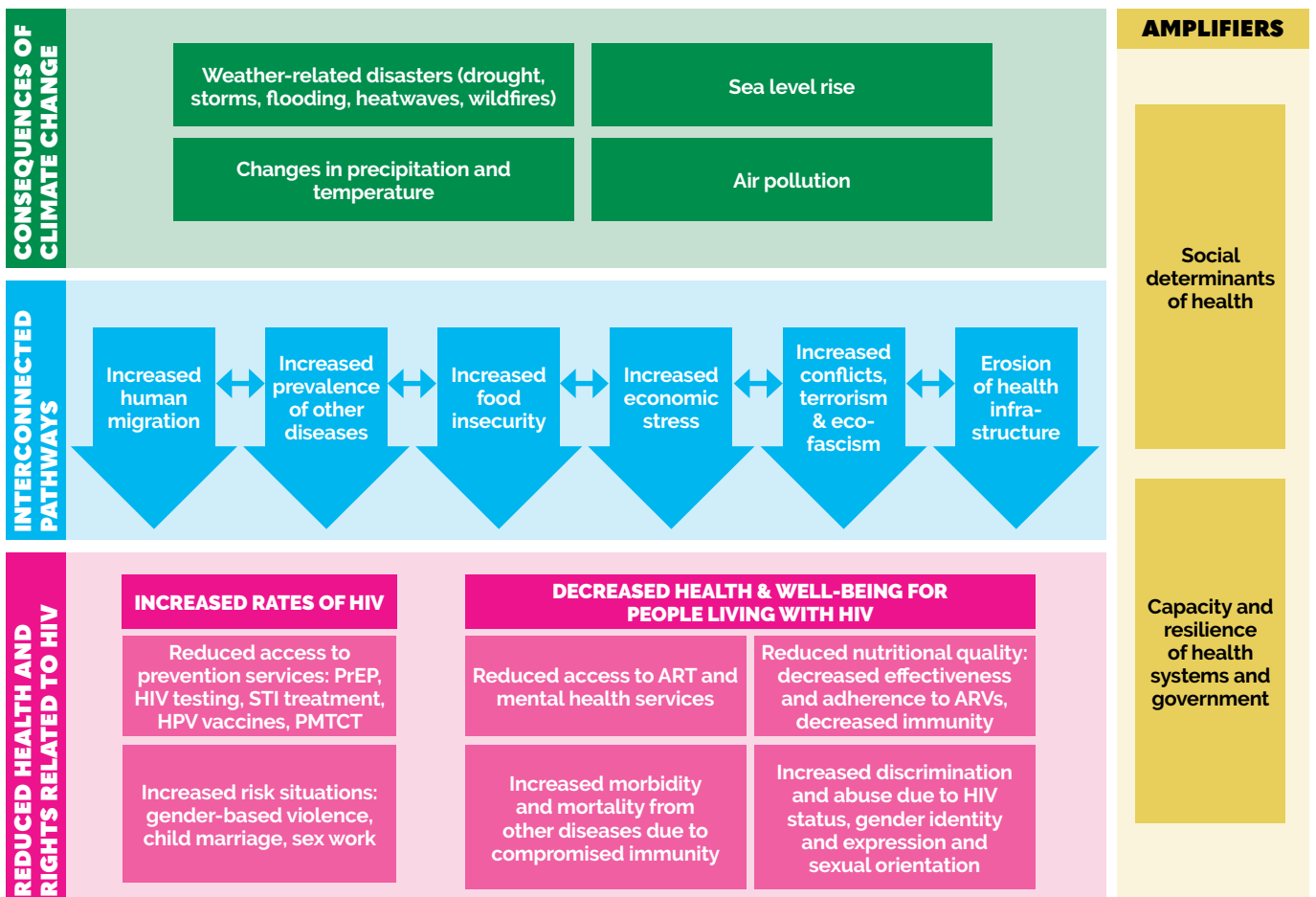
Figure 1 below shows the effects of the climate crisis on HIV.<sup>c</sup> While we recognise that health systems contribute to greenhouse gas emissions and therefore worsen climate change, the communities affected by and vulnerable to HIV are not among the greatest emitters. The inherent injustice is that, while high-income countries produce the most greenhouse gas emissions, the effects of climate change are most severely felt in low- and middle-income countries where people have fewer resources to adapt to these changes. This is why, in the context of our partnership, we are focused on how the climate crisis impacts HIV (rather than the inverse), and on adaptation strategies.

Key to understanding the connections between climate change and HIV is understanding that the communities and individuals who are disproportionately impacted by HIV are the same people who are disproportionately impacted by the

climate crisis. Climate change makes people more vulnerable to HIV. And it makes the health and rights barriers that reduce people's access to HIV prevention, testing and care worse, while reducing people's capacity to realise their rights.

There is emerging evidence that shows the specific pathways that link the consequences of climate change to HIV. For example, modelling in Malaysia has shown a 12% increase in HIV infection rates for migrant populations.<sup>8</sup> A study in Lesotho found migration, a consequence of climate change, doubled young people's odds of contracting HIV,<sup>9</sup> while severe food insecurity – another fallout from the climate crisis – has been associated with a twofold increase in HIV risk among women.<sup>10</sup> There is also evidence that HIV infections increase during economic crises;<sup>11</sup> similar outcomes could be predicted when health systems are impacted by climate crises.

**Figure 1: Frontline AIDS' Climate-HIV Framework**



c. The framework draws on the work of Guinto et al<sup>1</sup>, Lieber et al<sup>1</sup>, UNFPA<sup>3</sup> and the World Health Organization<sup>4</sup>.

## CONSEQUENCES OF CLIMATE CHANGE

The four major and most relevant consequences of climate change for HIV are **weather-related disasters** (most significantly, droughts, storms, flooding, heatwaves and wildfires), **sea level rise**, which especially impacts communities and infrastructure along coastlines,<sup>12,13</sup> **changes in the amount of rain and average temperatures**, and **air pollution**. The first three are directly caused by rising CO<sub>2</sub> levels, and while air pollution is not a direct result of climate change, the two have mutually reinforcing effects. The sources of greenhouse gas emissions, such as burning fossil fuels to generate electricity and for transportation, also contain air pollutants such as particulate matter, nitrogen oxides and sulphur dioxide.

## INTERCONNECTED PATHWAYS

There are a number of interconnected pathways that link the consequences of the climate crises to reduced health and rights related to HIV.

### INCREASED MIGRATION

Weather-related disasters can destroy the areas people live and forcibly displace communities.<sup>14</sup> A one-metre rise in the sea level can bring catastrophic effects, such as the submergence of whole villages, suburbs or neighbourhoods. The magnitude of this is immense. Weather-related disasters are forecast to result in migration of between 200 million and 1 billion people by 2050.<sup>15</sup> Sea level rise, air pollution and changes in rain and temperature averages lead to slower but no less significant migration as places become less inhabitable.

### INCREASED DISEASE

Outbreaks of water-borne, vector-borne and food-borne diseases also increase with weather-related disasters, sea level rise, changes in average rain and temperatures, and the related biodiversity loss, threatening people's health.<sup>16,17,18</sup> Poor water quality promotes the spread of water-borne and food-borne diseases, such as typhoid, cholera, shigella, schistosomiasis and viral hepatitis.<sup>19,20,21</sup> Temperature increases are changing where malaria-spreading mosquitoes can survive,<sup>22</sup> and heavier rainfall is increasing the number of mosquitoes that carry dengue, scrub typhus and Japanese encephalitis.<sup>21</sup> Exposure to air pollution is a major risk factor for a wide range of chronic non-communicable diseases, including heart disease, asthma, chronic obstructive pulmonary disease and lung cancer.<sup>23</sup>

### INCREASED FOOD INSECURITY

Weather-related disasters affect food production, either by flooding agricultural lands or lowering soil moisture, both of which diminish crop yield.<sup>24,25</sup> In addition to flooding agricultural lands, rising seas bring saltwater into bodies of freshwater, which are an important drinking water source for coastal



Frontline AIDS / Denis Mwangi / 2023

communities.<sup>26</sup> There is growing evidence that consuming highly salinized water caused by sea level rise has many damaging health impacts.<sup>27,28</sup> In turn, higher temperatures and heavier rainfall has negative impacts on water quality. Increases in either the amount or frequency of rainfall leads to soil degradation.<sup>29</sup> The capacity of soil to absorb nutrients, pesticides and other substances is thereby reduced, which ultimately degrades water quality<sup>30</sup> as well as reducing crop yields.

### INCREASED ECONOMIC STRESS

The World Bank estimates that water scarcity alone, exacerbated by climate change, could cost some regions up to 6% of their gross domestic product by 2050.<sup>31</sup> The majority of people living in poverty depend on agriculture and natural resources for survival.<sup>32</sup> Extreme weather events and forced migration can cause people to lose their livelihoods. A systemic review of how drought impacts people's adherence to antiretroviral treatment (ART) found that economic and livelihood-related challenges appear to have the strongest impact on non-adherence.<sup>33</sup> A study of Kenyan smallholder farmers living with HIV found that climate-related economic insecurity is one of the biggest drivers of emotional distress, and that widespread economic insecurity disrupts communal and family support systems, which is an additional driver of worsening mental and emotional health.<sup>34</sup>

## CONFLICT, TERRORISM AND ECO-FASCISM

The link between climate change and increases in conflicts has not been as nearly well proven as the other pathways, but there is evidence that suggests a link.<sup>35</sup> History is clear that worsening economic situations are breeding grounds for conflict and terrorism. As entire communities are turned into climate refugees, as livelihoods become unsustainable due to the loss of livestock and arable land, and as communities begin to fight over scarce resources, conflict seems inevitable. Many analysts consider climate change a threat multiplier, aggravating existing challenges around food, energy and insecurity.<sup>36</sup>

Eco-fascism is a term to describe the rise of nationalistic and white supremacist responses to climate change. By seeing the world as a diminishing resource that is under threat, eco-fascists say that deaths caused by extreme climate events are 'God's will' and a way of population reduction, and they will advocate to close borders and blame difficulties on those seen as outsiders. Marginalised communities, including LGBTQIA+ people, people living with HIV, those practicing certain religions and black and brown people, are often blamed and targeted for harassment or violence. This is in addition to the conflicts linked to mass migration and scarce resources.<sup>37</sup>

## EROSION OF HEALTH INFRASTRUCTURE

Weather-related disasters can erode public health infrastructure.<sup>38</sup> Sea level rise can physically submerge infrastructure. This not only disrupts healthcare it can destroy medical records and disrupt medicines and other supplies, all of which are vital for the ongoing provision of ART in most countries. Weather-related disasters also disrupt health system staffing as healthcare workers leave their communities for the same reasons that force others to migrate.

Rarely does a consequence of climate change impact just one pathway. For instance, floods displace people long-term or temporarily (increased migration), result in standing water which breeds mosquitos that carry malaria (increased diseases), increase soil salination which impacts crop growth (increased food insecurity), and disrupts health clinics, health records and medicine supply (erosion of public health infrastructure). In turn, these pathways create other pathways. For example, a farmer whose land produces less or no food has less money. This causes economic stress for them and their family and the surrounding communities, all of whom will need to search for or import more food. When people migrate for climate-related reasons they will often pass through or settle in communities that are themselves lacking food and other resources, resulting in increased conflict. Food insecurity and economic stress have been linked to increased mental health issues, specifically for people living with HIV. This places additional pressure on the government and private resources available for routine services, including health, which contributes to conflicts, terrorism and eco-fascism.<sup>39,40</sup>

## REDUCED HEALTH AND RIGHTS RELATED TO HIV

### INCREASED HIV RATES

**Reduced access to prevention services.** The consequences of climate change are making it harder for people to get HIV prevention products and services. They may be forced to migrate away from existing health services into areas where health services are unknown or non-existent, and supply chains are also disrupted. Weather-related disasters weaken health infrastructure, particularly in areas of the world with the least resources where services are already strained. These events damage facilities, compromise supply chains and result in the loss of medical records. We



Frontline AIDS/Keoma Zec 2020



see evidence that weather-related disasters lead to reduced HIV testing,<sup>41</sup> while other related healthcare outcomes, such as lower tuberculosis notification rates, have been linked to higher average rainfall.<sup>42</sup> The current minimum sexual health service package used in most disaster responses includes male condoms, post-exposure prophylaxis (PEP) and drugs to treat sexually transmitted infections. But it does not contain ART or pre-exposure prophylaxis (PrEP),<sup>43</sup> meaning these drugs are not routinely available in displacement camp clinics or in wider humanitarian responses, and staff are not trained to provide them.

**Increased risk situations.** People confronted with climate-related displacement, economic stress and food insecurity are more likely to do or experience things that increase their HIV risk. Evidence shows that food insecurity increases transactional sex, unprotected sex, violence against women and girls, child marriage, the number of sexual partners someone has, drug use, intergenerational sex, early sexual debut and forced sex.<sup>6,7,10,16,41,44,45,46,47</sup>

## DECREASED HEALTH AND WELL-BEING FOR PEOPLE LIVING WITH HIV

**Reduced access to HIV treatment and mental health services.** The same disruptions to HIV prevention services also affect HIV treatment and care. During droughts, and extreme heat and rainfall, people are more likely to stop taking ART and miss care appointments.<sup>48,49,50</sup> For example, after flooding in Namibia in 2009, 87% of people living with HIV reported

disruption to services and 23% reported missing doses of their HIV medication.<sup>51</sup>

The effect of hurricanes, floods, wildfires, drought and heatwaves are also harmful to mental health.<sup>52,53</sup> People living with and vulnerable to HIV already have higher rates of mental health issues than other people, which is then being exacerbated by climate-related stress.<sup>54</sup> For example, a study among Kenyan smallholder farmers living with HIV found all reported that climate change was impacting on their emotional health.<sup>41</sup> Studies show that people living with HIV with depression are twice as likely to die than those without. One study showed that, for every 25% increase in the number of days a person living with HIV has depression, their risk of death increases by 19%.<sup>55</sup>

### Increased death and illness from other conditions.

As HIV is an immune-compromising condition, it can make it harder for the body to fight off diseases. As climate change increases infectious diseases, this translates into potentially life-threatening risks for people living with HIV, particularly if they are unable to access effective ART. Malaria has been linked with both increased HIV prevalence<sup>56</sup> and increased HIV viral load<sup>45</sup>. While fungal infections, which are increasing due to climate change, are a leading cause of illness, hospitalisation and death among people living with advanced HIV.<sup>57</sup>

### Reduced nutritional quality and quantity.

Eating a nutritious diet benefits people with HIV for three key reasons: it boosts resistance to infections, decreases medication side effects and alleviates HIV symptoms. People with HIV may sometimes need more food to give them the energy to fight off infections. All of this means food insecurity can have devastating effects for people living with HIV. Food insecurity has been associated with people being unable to adhere to ART, being unable to go to clinic appointments, their treatment not working as well as it should, more compromised immune systems and worsening HIV, ultimately leading to more AIDS-related deaths.<sup>58</sup>

### Increased discrimination and abuse.

When climate changes result in humanitarian disasters, those most at risk of or living with HIV are often excluded from decision-making in terms of policies, plans and preparedness, and find themselves isolated or at risk of violence and harassment. This has been documented in LGBTQIA+ communities<sup>59</sup> as well as for women and girls. LGBTQIA+ people report not being able to access health services within humanitarian camps, while others report seeking health services but being turned away. When Tropical Cyclone Harold hit Vanuatu, for example, nearly one in five LGBTQIA+ people reported being blamed for causing the cyclone, around half (48%) were harassed in emergency shelters and one-third (33%) experienced homophobic violence.<sup>59</sup>

## AMPLIFIERS OF IMPACT

How a climate crisis impacts an individual will depend on that person's social determinants of health<sup>d</sup> and the capacity of the health system in the place they are in to adapt to the changing situation. Put simply, both *who the person is* (in terms of demographic, socioeconomic and health status factors) and *where the person is* (in terms of geography and health system resilience) are more important to their health and well-being than the specific consequences of climate change.

**Social determinants of health** include gender and sexual orientation, socioeconomic status, age and demographic factors, culture and religion, literacy, race and ethnicity and geographical location. There is significant overlap between populations that have increased vulnerability to the climate crisis and populations that face barriers to sexual and reproductive health and rights (SRHR), but SRHR is not prioritised in climate action or in government adaptation plans.<sup>60</sup> There is evidence that social determinants of health can compound to magnify outcomes relating to both HIV and the climate crisis, meaning the populations that are the most marginalised are the most disproportionately affected.<sup>7,61,62,63,64,65,66,67,68</sup>

The **capacity and resilience of the health system and the government** response makes a huge difference when it comes to climate consequences. For example, if health systems have put in place adaptation measures to counter weather-disruption, such as ways to transfer medical records and treatment regimens or backup power, water and staffing plans, the same

climate consequence can have vastly different outcomes. The resilience of the health system's supply chain is also critical, and includes elements such as production location and quantities, storage, affordability, and adaptation (heat-stability, long-acting products) of treatments and diagnostic tools. Similarly, governments' abilities to provide evacuation, temporary housing, financing and other support can greatly change the outcome of a climate-related disaster.

## THE IMPACT OF HIV ON CLIMATE CHANGE

The *Frontline AIDS Climate-HIV Framework* addresses the impact of climate change on the HIV epidemic. The people at risk of or living with HIV are much more likely to be suffering the consequences of climate change than contributing to climate change. These populations are making only marginal contributions to greenhouse gas emissions yet are extremely vulnerable to the climate crisis.

It is true that health systems contribute to climate change. Hospitals and health systems generate about 5% of global greenhouse gas emissions. If the healthcare sector were a country, it would be the fifth largest greenhouse gas emitter on the planet.<sup>69</sup> However, almost all of these emissions are from wealthier countries with relatively low HIV prevalence – over half are from the US, China and the European Union alone – and the impact of greater mitigation efforts to reduce greenhouse gas emissions in the health systems of low-income countries will be relatively low.



Frontline AIDS/Neil Freeman/2007

d. The non-medical factors that influence health outcomes.





# HIV AND CLIMATE CHANGE: EXPERIENCE/INSIGHTS FROM THE FRONTLINE AIDS PARTNERSHIP

To understand what the framework means in reality, we share the experiences of Alive Medical Services and Zvandiri, just two of the many partners that are experiencing the direct impact of climate change on their communities and programmes. The third case study from our partner the Middle East and North African Harm Reduction Association documents how responses and solutions that have proven effective in other crises can be transferred and adapted to address climate change.

## ALIVE MEDICAL SERVICES, UGANDA

Alive Medical Services (AMS) uses a community-based, client-centred and peer-led approach to provide free comprehensive HIV, AIDS and SRHR services to over 95,000 people in Uganda every year, including young people, adolescent girls and young women, orphans and marginalised populations. AMS works in the districts of Kampala, Wakiso and Mukono supporting 33 health facilities to provide comprehensive and high-quality HIV, AIDS and SRHR-related prevention, care, treatment and psychosocial support. The AMS medical centre, which is located in Kampala, is open 24/7.

*One girl that we worked with said that she would “rather contract HIV and have food rather than not contracting HIV and not having food.”*



Frontline AIDS/Karel Prinsloo/2022

As told by Pasquine Ogunsanya, Executive Director, AMS

<p><b>Weather-related disasters</b></p>	<p><b>Consequences of climate change:</b> After a prolonged drought, heavy rains fell on much of Uganda in July 2022, causing flooding and the destruction of crops and infrastructure, and in turn, landslides.</p>
<p><b>Food insecurity</b> <b>Human migration</b> <b>Economic stress</b> <b>Other diseases</b> <b>Conflict</b></p>	<p><b>Interconnected pathways:</b> These weather-related disasters caused people to migrate from places like Karamoja, one of Uganda's driest and poorest regions, to cities like Kampala in search of food and shelter. As migrants to the city, these communities don't have the social networks or economic opportunities they had at home, and often resort to sleeping outside without access to clean water, food or healthcare. Economic stress leads some climate migrants to engage in transactional or commercial sex work where it's difficult to negotiate condom use to prevent HIV and/or STIs. Unsafe sleeping conditions leave people at increased risk of malaria and reduced overall health and immunity. Conflict is common, as the infrastructure in the cities is already stretched and unable to cope with the arrival of new people. Certain groups, such as women and girls, ethnic minorities and LGBTQIA+ people, are particularly at risk of HIV but stigma, discrimination and fear of prosecution prevents them from accessing services.</p>
<p><b>Increased risk situations</b> <b>Reduced access to HIV prevention services</b></p>	<p><b>Increased rates of HIV:</b> Healthcare in Uganda relies heavily on people paying for medical fees and related expenses themselves. This accounted for 41% of total health spending in 2019. But climate migrants often need to prioritise immediate survival needs like shelter and food over healthcare and disease prevention. This leads to increased risky behaviours, such as having unprotected sex for money. During weather-related disasters, access to services for those with underlying health conditions (including access to ARVs for people living with HIV), services for non-communicable diseases and mental health are often disrupted due to displacement of health staff, reallocation of resources and/or supply chain breakdowns, particularly in mountainous or hard-to-reach places. Climate migrants' lack of access to mobile phones and the internet compounds the issue, as it prevents us from reaching them with vital digital information and education about the new and increased risks they face.</p> <p>In essence, the primary focus for these vulnerable people is survival, while health prevention measures take a back seat. One girl that we worked with said that she would "rather contract HIV and have food rather than not contracting HIV and not having food." Accessing HIV prevention methods and services is no longer a priority in times of crisis.</p>
<p><b>Increased illness and death from other diseases</b> <b>Reduced access to treatment and mental health services</b> <b>Decreased effectiveness of ART, decreased immunity</b> <b>Increased discrimination and abuse</b></p>	<p><b>Decreased health and well-being for people living with HIV:</b> The floods have reduced access to mental health services, economic opportunities, food, transport, shelter and medicines, particularly for those living with HIV and LGBTQIA+ people in Uganda. Reduced access to healthcare services and increased illness from other diseases have resulted in people living with HIV having compromised immunity, and this has led to various health problems and opportunistic infections, including malaria, bacterial infections like diarrhoea, and malnutrition. The COVID-19 pandemic and a lack of proper nutrition have worsened the situation. One woman we worked with, who was living with HIV and living on the street after she was displaced by a weather event, was unable to adhere to her ART regime. She was arrested and severely injured, and due to her general ill health, she did not recover.</p> <p>Discrimination against people with HIV and LGBTQIA+ people has increased, causing mental health issues and homelessness. This, in turn, has led to a vicious cycle in which these groups cannot access necessary services, including access to ART. Limited economic opportunities make these challenges even worse.</p>
<p><b>Social determinants of health</b></p>	<p><b>Amplifiers:</b> We have seen first-hand how the impacts of climate change disproportionately impacts people who are marginalised, including women, children, ethnic minorities, LGBTQIA+ people, people on low incomes, migrants, displaced people, older people, people who are illiterate and people living in hard-to-reach areas. Those with underlying health conditions, such as HIV, mental health issues and non-communicable diseases, are also disproportionately affected by weather-related disasters.</p>

## HOW AMS RESPONDED

We were able to work with our partner DAK Foundation to give cash transfers of \$30 per month for 8 months to 2,500 people living with HIV during the worst impacts from the droughts/landslides/floods. This helped to boost people's ability to buy the nutritional food necessary to ensure the effectiveness of their ART and address other essential needs. We also provided mental health counselling and distributed insecticide treated nets. As a result, the people we supported were able to eat, and could continue taking and benefiting from ART.

*At the grassroots level, we see people doing very good work, but we don't have the resources to support them, and they don't have the technical skills, knowledge or tools they need to address the challenges they're facing*

## WHAT ELSE IS NEEDED

We have witnessed a widespread lack of understanding of climate change and how it can impact health, particularly for populations that are most vulnerable to its effects. Support measures like educating communities, economic empowerment and changing behaviours that damage the environment are desperately needed. AMS has been piloting economic empowerment activities for the last couple of years, training communities in activities like gardening, but more support is needed. Our cash transfers have been helpful, but technology adoption and the distribution of resources remain challenging to the hardest to reach communities, and meaningful community involvement is needed through training and education. Working within the government system to strengthen communities and reach them at the village level is vital. At the grassroots level, we see people doing very good work, but we don't have the resources to support them, and they don't have the technical skills, knowledge or tools they need to address the challenges they're facing.



Frontline AIDS/Karel Prinsloo/2022

## ZVANDIRI, ZIMBABWE

The Zvandiri programme provides a differentiated service delivery approach to HIV testing, treatment, care and support for children, adolescents and young people (aged 0-24 years) in Zimbabwe. It combines HIV, mental health and protection services to improve young people's HIV outcomes and quality of life. Zvandiri is primarily delivered by trained and mentored peer counsellors called Community Adolescent Treatment Supporters (CATS) and Young Mentor Mothers (YMMs). CATS and YMMs are young people living with HIV, aged 18-24, who work in health facilities. They work alongside healthcare professionals to manage their own caseloads of young people living with HIV, providing information, counselling, monitoring and support through home visits, clinic sessions, support groups and mHealth initiatives.

The CATS model has been adopted and scaled by the government of Zimbabwe. It is core to the READY approach (Resilient Empowered Adolescents and Young People) which Frontline AIDS and a consortium including Zvandiri has been developing and scaling up across Southern and Eastern Africa.

*As told by Mather Mawodzeke, Technical Assistance Manager, and Felisitas Ngubo, Programme Coordinator, both from Zvandiri*

<b>Weather-related disasters</b>	<b>Consequences of climate change:</b> In Zimbabwe, climate change has increased the frequency of droughts (both lower rainfall and higher temperatures) and increased severe weather, including heavy rains and cyclones, causing floods among other consequences.
<b>Food insecurity</b> <b>Human migration</b> <b>Economic stress</b>	<b>Interconnected pathways:</b> In Zimbabwe, more than 70% of people depend on agriculture. This makes disruptions to farming catastrophic. During the droughts we have seen hunger, both in the individuals we serve and throughout households. This is combined with a loss of income. In the cases of floods, people have had to leave their homes and communities and seek refuge elsewhere. In both cases, our young people are in survival mode.
<b>Increased risk situations</b> <b>Reduced access to HIV prevention services</b>	<b>Increased rates of HIV:</b> In more stable times, our young people prioritise their sexual and reproductive health. This stops when they become more desperate for food and money. They are saying "I will not prioritise if I do not have enough food in the house."  As the ground water is depleted, women and girls are forced to walk further and further distances to fetch water, leaving them exposed in the bush to sexual attacks and exploitation. For instance, in Muzarabani district men guard the waterpoints and demand sex in return for access. If the women or girls refuse, they have to travel even further and longer for essential household water.
<b>Reduced access to treatment and mental health services</b> <b>Decreased effectiveness of ART, decreased immunity</b> <b>Increased discrimination and abuse</b>	<b>Decreased health and well-being for people living with HIV:</b> One of the droughts' starkest outcomes has been the increases in the number of 'treatment defaulters' or missed appointments and doses of ART. The young people that Zvandiri supports used to have money to pay for transport to the health clinics, now this money goes on food. There is no extra money at all, and sometimes there is not even enough money for food. We see that young people are not taking their HIV medication because they have no food and are worried about taking it on an empty stomach.  Young people who have been displaced by floods tell us that their attempts to access ART in a new location is forcing them to involuntarily disclose their HIV status. Friends and family wonder why they are focused on seeking a clinic in the area where they've fled to when there seem to be more urgent needs. This often leads young people to disclose their HIV status. When they do, they are reporting increased discrimination. They are faced with an impossible choice between treatment and stigma.  We have seen drug dependence increase among young people due to the stresses caused by climate-related events and resulting loss of income. They use drugs to forget about the stress and the hunger. They stop caring about their treatment or health. We see how this contributes to suicide and unprotected sex – and more STIs and unintended pregnancies. The young people say that not having a condom is "the least of our issues".
<b>Social determinants of health</b>	<b>Amplifiers:</b> We see women and girls impacted the most, as they are required to fetch the water and firewood. Not only does this leave them more exposed to sexual violence and abuse these tasks are also taking longer and they are experiencing physical strain due to the longer distances they have to travel.  People in rural areas are more impacted than those in urban areas, as they have fewer options to get money and food. People with the fewest resources and the least education are more impacted as they don't have access to information about food distribution schemes or response plans when there's a drought.



*In more stable times, our young people prioritise their sexual and reproductive health. This stops when they become more desperate for food and money.*

Frontline AIDS/Steven Chikosi/2020

**HOW ZVANDIRI RESPONDED**

Our Zvandiri programme is not yet a major player in disaster risk reduction or response, but we are trying to do our part because we can so clearly see the need. We responded to the increases in gender-based violence by placing our staff and CATS at the water collection points to encourage community members to protect young women who are vulnerable to abuse at these points. Community members are also sensitised on the importance of maintaining good relations in a community so that the young women do not feel defenceless against stronger men. With further funding we'd like to train community champions on gender-based violence so they can share information without Zvandiri staff needing to be present. This will also help communities to take ownership of this intervention to prevent gender-based violence at water collection points.

We realised that healthcare workers were not seeing the link between climate change and people defaulting on their HIV treatment, so we are participating in nurses' meetings to help them understand why storms, droughts and floods are stopping people from accessing ART. We have also supported nurses to share information with people using ART services that will help them adhere (e.g., if you don't have food, you can still take your medication). We are also helping the health ministry to see the link between climate change and health.

We are conducting activities to support more environmentally-friendly alternatives to things such as tree cutting and burning bushes to clear rodents. We are doing this to help make our lands more resilient to both heavy rains and the lack of rain. As some of

the young people we support are farmers and/or in farming families, we set up meetings between our community cadres and agricultural extension officers to talk about drought-resistant planting and to ensure families are enrolled in government food programmes.

We have been doing most of this work with existing resources – our donors have not given us additional climate-response funding. We are networking with relevant people and they are helping us, but the resources this takes means other programmatic priorities are being neglected.

**WHAT ELSE IS NEEDED**

In Zimbabwe we know very well the regions where we will get flooding in the rainy season, and yet we don't prepare communities well in advance. The government is doing a lot of good work in terms of helping farmers adapt by using drought-resistant seeds and promoting low-till farming to maintain soil moisture, and is also looking at how climate change is impacting SRHR and health. But what is still lacking is preparedness for weather-related disasters. Every time we are caught unawares, without roads to reach communities and without ways to communicate to those affected.

We need more funding to help communities and health systems prepare and respond to climate-related disasters. The HIV response has poured so much money and effort into HIV testing getting to the last mile. We need to provide the same level of resources and energy to address how climate change is impacting SRHR. We would also benefit from the kind of motivational goals and indicators that we have in the HIV response, such as the UNAIDS 95-95-95 goals.

## THE MIDDLE EAST AND NORTH AFRICA HARM REDUCTION ASSOCIATION

The Middle East and North Africa Harm Reduction Association (MENAHRRA) is a regional harm reduction network that operates in 20 countries. It was established in 2007 as a World Health Organization initiative in cooperation with Harm Reduction International. It is now an independent international NGO registered in Beirut. Its mission is to prolong, protect and improve the quality of life of people who use drugs in the region. It seeks to promote tolerant policies and practices for people who use drugs, with particular respect to their health, human rights and freedoms.

MENAHRRA works to empower people who use drugs as well as other marginalised populations, including people living with HIV, to achieve their rights and to promote increased government effectiveness in relation to the HIV response in the region. It aims to strengthen the role of civil society in implementing harm reduction in the region, and recognises its importance in delivering human rights and health services to at-risk populations.

*As told by Elie Aaraj, Co-Founder and CEO, MENAHRRA*

### PREPARING FOR EMERGENCIES

The MENA region experienced a slew of disasters between 2019 and 2023. These laid bare the gaps in national and international emergency responses for people living with HIV and those most at risk. Our experiences highlight the types of gaps we can expect to see in climate-related crises and the emerging solutions we are finding for groups most affected by HIV.

MENAHRRA has worked with country teams to conduct needs assessments and build national emergency preparedness plans that focused on HIV and harm reduction service providers. A key concern was the disruption to prevention, testing, treatment and outreach services. These plans have been finalised in Egypt, Morocco, Jordan, Tunisia and Yemen in coordination with government ministries, civil society and other stakeholders. As these are recent plans and the governments are taking ownership of them, we don't yet have evidence for how they have improved response efforts. However, the process itself has generated useful dialogue and recognition of the gaps.

### EMERGING INSIGHTS IN DISASTER PREPAREDNESS PLANNING

Each plan, and planning process, will need to be adapted for local differences and contexts. There is no template or planning process that will work across countries or regions. We have learned the importance of being flexible in how we conduct the process. For instance, while the other processes happened in person, the Yemeni plan was conducted completely virtually.

**Policy reforms** are critical for the success of emergency response, and need to start long before any disaster strikes. In particular, working to end the criminalisation of LGBTQIA+ communities, sex workers, people who are homeless and people who use drugs is essential to ensure that community members can safely access the help that is available.



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**Stock management planning** needs to consider risks and back-up plans. For instance, during the Beirut blast, the National AIDS Programme's warehouse was exposed, and in hindsight having all the stock in that one location was a risk. The government ended up moving the stock to a local nongovernmental agency to ensure its integrity. During the Lebanon economic crisis in 2021, the government realised it was at risk of a stockout of opioid agonist treatment (OAT), which is used for opioid dependency. Prescribers began decreasing the dosage, which resulted in withdrawal, cravings and in some cases, overdose. The same

thing happened when the COVID-19 pandemic caused supply chain issues in Morocco, where a large percentage of MENAHRA beneficiaries experienced withdrawal due to the unavailability of OAT. In Lebanon, we were able to work with donors to raise enough outside funding to bring in a year's supply of OAT to bridge the gap. Having a plan to get quick access to six months to a year's worth of essential medications should be part of any response plan. Flexible strategies, such as those undertaken during COVID-19 of distributing two-months' worth of ART (versus the traditional one-month distribution) are also important, and it's easier if these have been thought out and agreed upon in advance.

**National emergency plans should have chapters for the populations** most affected by HIV which have specific needs. These groups include people living with HIV, people who use drugs, LBTQIA+ people, people living with disability, older people, women and girls. We know of a transgender woman who lived next to the Port of Beirut when the warehouse exploded, for instance, whose house was completely destroyed. She was afraid to go to her parents' house or to seek refuge elsewhere for fear of her transgender identity being exposed and the discrimination and abuse that would follow. Barriers to accessing services, and the group's specific safety, medical and nutritional needs, should all be considered in planning.

**The planning process and response needs to be multi-agency and multi-sectoral.** None of us can do this alone. We need to work with the clusters at the national level (e.g., the food cluster, the health cluster) and build new clusters as necessary. At MENAHRA we have worked with the WHO, UN Women, UNFPA, and the International Organization for Migration – none of these agencies can do it alone. We often have to be the ones to access the essential supplies for our communities. Many of our needs assessments highlighted the fact that community service organisations were not included in national response plans, and this was a major factor in services not reaching communities most affected by HIV.

**Prepare community response teams.** At the national level, there should be volunteers who know they will be called upon during emergencies and are trained not just on first aid but also on outreach. Depending on the laws, we may have to create these teams for our communities, but having a way to communicate using trusted people is critical in disasters.

Ultimately, across these efforts, the process is likely to be a long-term advocacy effort to get our communities mainstreamed into national plans while having shorter-term response plans that we can mobilise until that happens.



Frontline AIDS/Keoma Zec 2020

## CONCLUSION



The climate crisis threatens to significantly increase the number of people affected by HIV. We cannot afford to lose the gains made in our goal to end AIDS for everyone everywhere by 2030.

We can harness the experience of AIDS activists and the successes and transformative moments in response to HIV that can be instructive in climate action. These include: the importance of those most impacted leading the movement, the importance of non-scientists in decision-making that uses scientific evidence to formulate policies, building upon existing movements, communities holding governments and organisations accountable, and believing in the possibility – but not the inevitability – of success.<sup>70,71,72,73,74,75</sup>

Frontline AIDS is committed to contributing to the evidence and dialogue to better understand the linkages between the climate crisis and HIV, and what types of programming are showing promise to reduce people's vulnerability to HIV.

Interventions must be based on lived experience to prevent HIV in the context of a deepening climate crisis. We are reminded that communities are at the frontline of this emerging crisis and have been the bedrock of our HIV response.

Communities have answers as to how to respond and it is our duty to understand, support and strengthen these. We do not have the luxury of pessimism. We must take action. This evidence brief is a first step in that direction. The Frontline AIDS partnership represents an enormous untapped resource. Our partnership is already adapting in ways that could be built upon.

Our commitments now are to:

- Keep creating **spaces of dialogue** to broaden and deepen the alliances working practically to adapt the HIV response to climate change. Specifically, this will mean deepening practical partnerships to ensure the most marginalised communities are better protected and served during humanitarian emergencies and adverse climate events.
- Use the best evidence available to **increase awareness of key stakeholders** of the potential impact of climate change on our ability to end AIDS.
- Identify, cultivate and **scale the best community level adaptation responses** to climate change using our Innovation Hub and working with our Innovation Partner – NACOSA.
- Continue **reducing our own climate footprint** through regular independent reviews and committing to 'net zero' by 2030 or before.

We recognise the scale of this change. And we know we cannot deal with it alone. We need alliances, knowledge and changes in funding and political will to ensure the gains the global HIV response has made in the last 40 years are not washed away.





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