Humanitarian aid must be allowed to enter the besieged Tigray region of Ethiopia

To the Editor — The devastating civil war in the Tigray region of Ethiopia has caused a dire humanitarian crisis and pushed Tigray's health system to the brink of total collapse[1]. Recent efforts to provide humanitarian aid in Tigray have been subverted by persistent regulatory and security obstacles[1,2]. This protracted obstruction has underscored the urgent need for advocacy and action to prevent mass human tragedy. The recent unilateral ceasefire by the Ethiopian government has allowed the entry of the first food supply trucks since December 2021, yet the Tigray region remains in desperate need of unfettered humanitarian access. Twenty-one months of conflict have left thousands dead and millions vulnerable to disease and hunger. The total communications blackout in Tigray has exacerbated difficulties in documenting human rights abuses and prevented the population from accessing health-related information during the COVID-19 pandemic[1]. Furthermore, interruptions of basic services such as electricity and the blockade of humanitarian access to the region have made it almost impossible for health systems and humanitarian services to function adequately.

Leaders in global health, specifically academic leaders, donor countries, and international aid organizations, must join others in the humanitarian community and exert greater pressure on the Ethiopian government to end the siege and allow greater humanitarian access to Tigray to support vulnerable populations and health institutions. The Geneva Conventions lay out rules for sieges, including allowing the entry of food, water, and medical supplies, civilian corridors, and prohibiting the destruction of medical facilities. Approximately 2.1 million people have been reportedly displaced, which has strained resources in a region already confronting food insecurity. Food insecurity has worsened in the region following the retaking of Mekelle by Tigray's regional government, which was followed by a de facto blockade and siege by the Ethiopian government and its allies[2]. The World Food Programme reported in early 2022 that 83% of people in Tigray are food-insecure with almost 40% suffering an extreme lack of food[3]. Half of all pregnant and breastfeeding women and 13% of Tigrayan children under 5 years old were found to be malnourished[3]. As a result of this famine, deaths due to starvation have occurred. Acute malnutrition increases the risk of poor pregnancy outcomes and can cause developmental delays in children.

Amnesty International has reported that Ethiopian and Eritrean soldiers have used gang rape and the intentional spread of HIV as weapons of war. Health centers in Tigray reported 1,288 cases of sexual violence between February and April 2021 (ref. [4]). In the early days of the war, healthcare workers provided care to survivors of sexual violence for termination of pregnancy, testing and treatment for sexually transmitted infections including HIV, and physical trauma[4]. Beyond the direct human damage, these attacks threaten to reverse gains made in Tigray's HIV prevention response, which reduced HIV prevalence by 20% between 2009 and 2011 (ref. [5]). Comprehensive physical and mental health care is needed to address these humanitarian needs.

The global health community should provide policy expertise and funding to rebuild the healthcare infrastructure in Tigray. Between mid-December 2020 and March 2021, Médecins Sans Frontières (MSF) teams in Tigray assessed 106 health facilities and found that only 13% functioned normally. Health centers were looted (70%), damaged (30%), occupied by soldiers (20%), and/or rendered completely non-functional (65%)[6]. In addition, only 11% of ambulances were available for use, with the majority damaged, looted, or seized by armed groups[6]. Moreover, the only oxygen-producing company in Tigray no longer functions owing to lack of spare parts and maintenance, jeopardizing care for COVID-19, which was already hampered by the interruption of vaccinations[2,7]. The pervasive lack of medication endangers the estimated 180,000 patients with chronic disease in Tigray[8].

At Ayder Hospital, a leading academic medical center serving nearly 9 million patients (and where one of the authors works), a lack of resupply since June 2020 has led to a paucity of intravenous fluids, gloves, pain medications, and antibiotics. The supply of essential drugs at Ayder dwindled to 17.5%, and an estimated 117 patients have died owing to supply shortages[2,9]. Physicians have resorted to recycling single-use devices such as gloves, chest drains, and surgical supplies, which have led to complications such as infections, kidney failure, and amputations. Local businesses and community members have donated soap, linen, and bedsheets to sustain hospital operations but damaged imaging equipment remains in disrepair because replacement parts cannot pass through the blockade[2].

In addition to the damage inflicted on Tigray's health infrastructure, many healthcare workers have been killed, displaced, or remain unaccounted for. The lack of safety for health workers has caused thousands of them to flee, leading to further health worker attrition[10]. The destruction of health institutions and lack of compensation for healthcare workers has prevented providers from returning to work.

The global health response in Tigray should prioritize the safety and security of health professionals. International aid organizations can rehabilitate the health workforce by training individuals in the Health Extension Program, which forms the backbone of Ethiopia's community health workforce. With the destruction of hospitals and health centers, community health workers have a crucial role in delivering healthcare at home. There is a critical need for education of healthcare workers on trauma-informed care and mental health support, which global aid non-governmental organizations (NGOs) could help support. There is a need for disaggregated data collection and cluster sampling for health outcomes, to develop targeted solutions for the people of Tigray.

Training the healthcare workforce could be implemented virtually by global institutions, similar to Project ECHO in Uganda. Multi-Donor Trust Funds from the United Nations aid organizations can also provide health financing and assistance for healthcare workers and staff in Tigray.

The global health community should collectively engage the Ethiopian government to demand unfettered access for humanitarian supplies to Tigray. Humanitarian access could be stepwise: first, access to food, medicines, oxygen tanks, and

health professionals; second, the resumption of basic medical services including preventive, diagnostic, and therapeutic procedures; and third, the rebuilding of health centers, and the establishment of new medical facilities, based on current needs. This commitment to health system rehabilitation should also be extended to other regions, including Afar, Amhara, and Oromia where there are ongoing conflicts and humanitarian crises.

Global health academics and international aid organizations must advocate on a global stage for full compliance with international law and the lifting of all humanitarian blockades by the Ethiopian government. Global health organizations and donor nations have an authoritative advocacy voice and a profound capability to help rebuild health infrastructures across Ethiopia, infrastructures that continue to be destroyed as we write this letter. ❐

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Competing interests

The authors declare no competing interests.