

Elimination of sleeping sickness in Uganda could be jeopardised by conflict in South Sudan



Uganda is on the verge of eliminating the *Trypanosoma brucei gambiense* (*T b gambiense*) form of human African trypanosomiasis (HAT), commonly known as sleeping sickness. This elimination would be historic. In 2015, only four cases of this neglected tropical disease were diagnosed in the entire country. A similarly low number of cases in 2016 is a strong indicator that control measures, intensified by Uganda's Ministry of Health and its international partners over the past 8 years, are working. In the first 10 months of 2016, only four cases were reported. The number of global HAT cases has been declining over the past 15 years, and Uganda is now in a position to potentially eliminate the disease in the next 3 years.¹ However, the ongoing conflict in neighbouring South Sudan could jeopardise this important public health victory.

Once a devastating disease with epidemics causing up to 800 000 deaths in sub-Saharan Africa in the early 20th century, fewer than 3000 sleeping sickness cases were reported in 2015 in the whole continent.² Sleeping sickness is a complex disease caused by a parasite transmitted through the bite of an infected tsetse fly. In the first stage, which is treatable if diagnosed early, the infected person shows no symptoms that are suggestive of sleeping sickness. Without diagnosis and treatment, however, the parasites migrate to the central nervous system where they cause further damage, leading to the neurological symptoms that give the disease its name.³ This second phase is harder to treat and often results in long-term neurological sequelae in survivors.⁴ Thus, early diagnosis and treatment of sleeping sickness is crucially important for reducing morbidity and mortality, and for stopping transmission. The existing trends and the fact that 90% of the world's cases are registered in just one country—the Democratic Republic of the Congo (DR Congo)—informed a 2012 decision by WHO to target HAT for elimination as a public health problem by 2020 in a roadmap for the control or elimination of 10 neglected tropical diseases.⁵ The roadmap was endorsed by endemic countries, international organisations, and funders in the London Declaration of 2012.⁶ But we have been here before.

In the 1960s, systematic case detection and treatment campaigns brought the disease under control, with fewer than 5000 cases reported per year.⁷ However, the political instability and conflicts of the period following decolonisation in countries such as DR Congo, Angola, and Sudan led to the dismantling of health services, including disease control programmes for HAT and other diseases. Sleeping sickness came back with a vengeance, and long and deadly epidemics caused thousands of deaths from the 1970s to the late 1990s.⁷

In Uganda, sleeping sickness cases peaked and expanded to new areas from the late 1970s, during and following the civil conflict that occurred at the time. The violence caused movements of large numbers of people fleeing conflict in Uganda, and internally displaced people contributed to the spread of the disease to new areas during and after the conflict when they returned home. This spread had a delayed impact on sleeping sickness transmission in Uganda: registered cases reached a peak in the 1990s even though civil conflict had already been resolved.⁸ Uganda, with the assistance of the international community, invested heavily to reverse the situation and, during the past 8 years, the number of sleeping sickness cases has been declining steadily.

However, as in the late 1970s and 1980s, people fleeing armed conflict could once again erase those achievements. This time, those fleeing violence are not internally displaced people within Uganda, but are South Sudanese people escaping the conflict in their country. According to the UN High Commissioner for Refugees, the civil war in South Sudan has caused more than 50 000 deaths and resulted in 900 000 refugees since 2013.⁹ A large number of these refugees have settled in neighbouring Uganda and DR Congo. The worsening of the conflict in July and August of 2016, has increased the flow of refugees crossing the South Sudan–Uganda border, and as of September, 2016, more than 370 000 South Sudanese were registered in refugee camps in Uganda.¹⁰

The communities on both sides of the South Sudan–Uganda border share the risk of sleeping sickness, as transmission of *T b gambiense* still occurs in this region. Most of the South Sudanese refugees come

from endemic areas and have been accommodated in multiple camps in Adjumani and Yumbe districts, where the last few cases of the disease in Uganda have been reported in recent years. Unfortunately, sleeping sickness control might not be a priority for the humanitarian organisations that are managing the refugee camps. The influx of South Sudanese refugees in endemic regions of Uganda is poised to stress the ongoing control efforts led by the Ministry of Health. Targeted control measures should be put in place rapidly to diagnose and treat sleeping sickness cases among refugees and reduce the risk of transmission. Not doing so carries a strong risk of causing a resurgence of sleeping sickness cases in Uganda, condemning elimination efforts.

If handled adroitly, this process could be an opportunity to show the commitment of national and international institutions to eliminating sleeping sickness, and to mitigate the problem before elimination is out of reach. We have the tools to provide a rapid and effective response to this latest challenge. Rapid diagnostic tests for sleeping sickness are now available, safer and more effective treatments can be used, and new vector control methods can be deployed¹¹—tools that have already contributed to reducing the number of sleeping sickness cases in Uganda and other countries. The Ministry of Health in Uganda, with assistance from the international community, should implement a sleeping sickness control programme for refugees using all the available tools. Acting rapidly and with determination will safeguard Uganda's elimination goals and will also reduce the risk of resurgence in South Sudan once the refugees go back home.

The potential impact of refugees on the sleeping sickness elimination efforts in Uganda is a clear example of the need to coordinate sleeping sickness control

efforts regionally. Endemic regions often share borders: South Sudan, DR Congo, and Uganda, or Angola, DR Congo, and Republic of the Congo, or Chad and Central African Republic, for example. In such situations when a disease focus is shared between countries, control activities must be cross-border and comprehensive. Unilateral actions risk the long-term health of neighbouring countries; as the African proverb says, when a tree falls it will lean on its neighbour.

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We declare no competing interests. We both contributed equally.

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