



Estimating the economic and social consequences for patients diagnosed with human African trypanosomiasis in Muchinga, Lusaka and Eastern Provinces of Zambia (2004–2014)

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Introduction

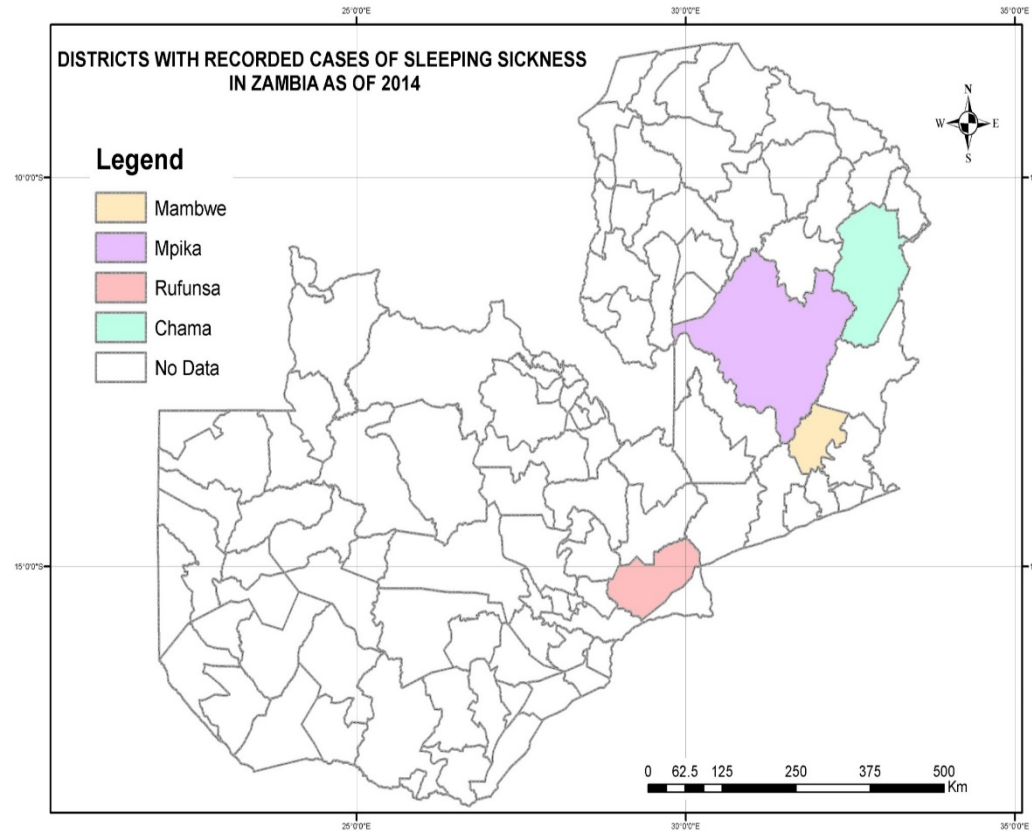
- A neglected zoonotic parasitic disease caused by a haemoflagellate of the genus *Trypanosoma*.
- Also commonly known as sleeping sickness
- Caused by two different species of trypanosomes, namely *Trypanosoma brucei gambiense* and *Trypanosoma brucei rhodesiense* (WHO., 2012).
- Transmitted by bite of an infected tsetse fly of the genus *Glossina*.
- Has been a major impediment to the social and economic development in most of the African rural communities, South of the Sahara.

Material and Methods

Study Design and Sampling

- Cross Sectional Study
 - Questionnaire for economic data – 64 cases
 - FGD for social consequences data
 - Key informant interviews
- DALYs calculated using template available through the National Tools of the WHO's Global Burden of Disease website
 - Inductive approaches for qualitative data

Study Areas



Loss of Income at Individual level

- Average months lost due to being diseased = 4.9
- Median economic income per month was = US\$ 63.2 (IQR = 15.4–63.5).
- Median income lost due to being diseased = US\$ 309.68
- Median costs incurred during hospitalization = US\$ 164.00
- Those that self-medicated, either sought treatment from traditional healers or were misdiagnosed at health centres, incurred additional substantial treatment costs averaging US\$ 71.9

Results cont.....

DALY ESTIMATES (without weighting and discounting)

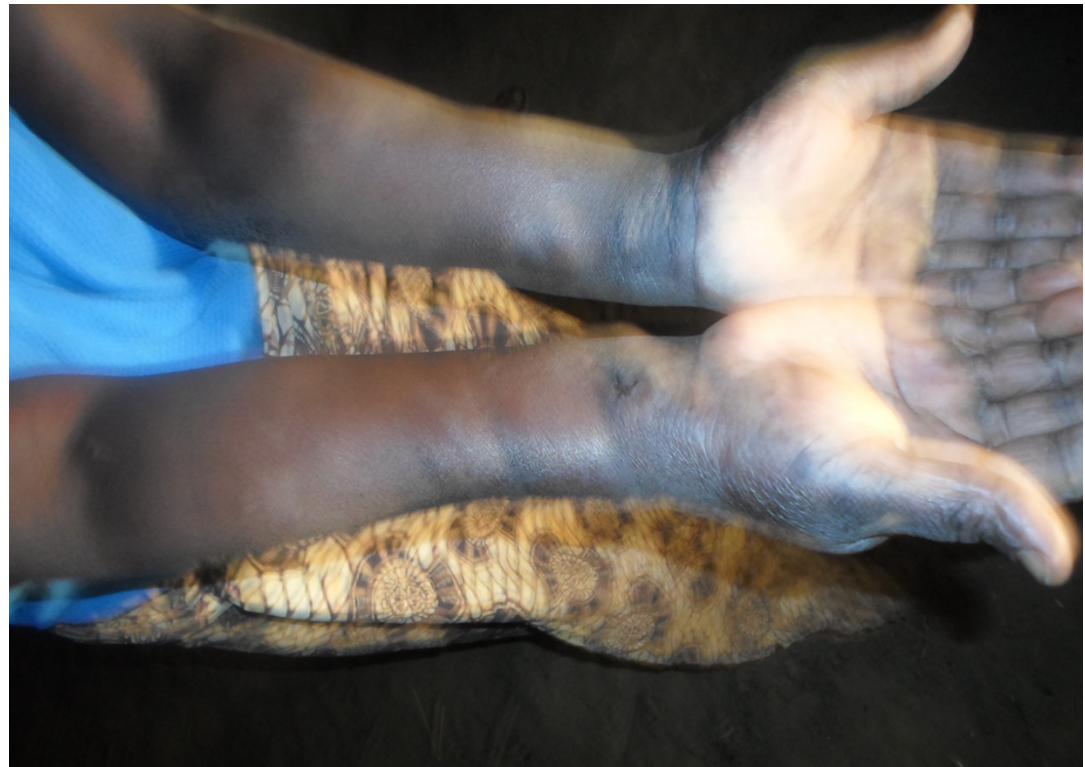
	Total	Male	Female
Without long term disabilities	285.2	231.6	63.6
With long term disabilities	426.2		

DALY ESTIMATES (with weighting and discounting)

Age weighting (minus long-term disabilities)	336.1
Age weighting + disc	221.5
Age weighting +long term disab	505.8
Age weighting+disc +long term disab	319.2

Social and Physical consequences of HAT

- **Misconception**
- **Stigma**
- **Loss of employment**
- **School dropout**
- **Pain**
- **Amnesia**
- **Deformities**
- **Sleeping disorders**



Naratives from FGDs.

“There are people whom we have seen who have the problem of sleeping. At times, they complain of headache. However, people fear to go to the hospital to have their blood tested, because they are afraid of being taken to have HIV/AIDs. Many would prefer staying at home and doing self-medication or seek traditional treatment than going to the hospital. When you mention to them that they are sick, they get annoyed”. – FGD, Nabwalya

“There are so many of these situations. One of them was our wildlife scout (game ranger) student who we thought had malaria because they could not find the problem at the hospital. After undergoing malaria treatment and he was not recovering, we thought it's a straight forward case of HIV/AIDs. He was excluded from the training and considered a failure. Later on we heard that he died and the cause of death was sleeping sickness” (ZAWA Officers).

Discussions

- HAT in Zambia has high DALYs and social consequences
- High DALYs could be due to severity of the disease and late diagnosis
- High economic losses due to disease at household level are similar to what Askoy, 2011, reported for Uganda.
- Disease presents a significant burden on the household and community
- Physical disabilities had higher effect on female patients – loss of self esteem.

Conclusion/ Recommendations

rHAT is a disease that arises out of poverty and perpetuates and reinforces poverty at household level

At individual level, it causes loss of self esteem due to physical and mental disabilities

Results of this study can help contextualise importance of prevention both to affected population and costs of outbreak mitigation strategies

Improved surveillance and diagnostic capacities of local medical facilities needed so that cases are detected early

Supportive measures to mitigate the long-term effects of disability due to rHAT are needed.

Acknowledgement



And all the rHAT patients who participated in this study