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## ***News Release***

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### **Mothers-to-be hold key to beating killer disease, experts say**

Pregnant women should be at the centre of new efforts to control one of Africa's deadliest diseases, experts say.

A form of sleeping sickness – which threatens around 70 million people – can spread to a child if its mother experiences stress or famine during her pregnancy.

Scientists warn that the threat of famine could trigger an epidemic in Southern Sudan. They are urging that efforts to boost the nutrition and welfare of pregnant women should be urgently improved.

It has long been assumed that the most common strain of the disease – called chronic Gambian sleeping sickness – is spread solely through tsetse flies. But Gambian sleeping sickness is rarely detected in tsetse flies and now the scientists at the University of Edinburgh propose an alternative human to human mode of transmission.

In humans, the disease can lie dormant for many years without causing symptoms.

These 'silent carriers' have a natural tolerance to the disease, which women would ordinarily pass on to their baby if they become pregnant.

But scientists at the University of Edinburgh suggest that in times of famine, changes occur in a pregnant women's genetic profile that mean their tolerance is not passed on to her children – but the dormant infection is.

The findings will help researchers develop new strategies to prevent and control the spread of the condition.

It is estimated that 70 million people in Africa are at risk of contracting Human African Trypanosomiasis (HAT) or sleeping sickness. The majority of these – 81 per cent – are at risk from the Gambian form (gHAT).

This common strain a chronic disease that may take many years before becoming fatal. The WHO estimate it affects around 20,000 people every year.

Professor Sue Welburn, Professor of Medical and Veterinary Molecular Epidemiology at the University of Edinburgh said: "Our priority should now be to concentrate on screening

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women of child-bearing age in high risk locations to ensure they receive adequate nutrition during periods of drought and famine.”

Professor Ian Maudlin, who co-led the research at the University of Edinburgh’s Division of Infection and Pathway Medicine, said: “Currently, patients cannot be treated for sleeping sickness unless key markers of the disease – called trypanosomes – are found in their blood. But current tests are simply not sensitive enough to achieve this for silent carriers. International efforts should now focus on creating new highly sensitive diagnostic tests that are fast, affordable, and accurate, rather than on tsetse fly control.”

This paper was published in the latest edition of Trends in Parasitology.

[Trends in Parasitology paper](#)

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