

Mapping Trachoma in Unity State, Southern Sudan

Mapping an area the size of Belgium helps to secure treatment for more than one million Southern Sudanese

“Malle! Mallu Muguwa?” The survey team starts out early, greeting each other as they emerge from their tents. Team members prepare to travel to a nearby village where they will continue their trachoma survey work. Each person fills their backpacks with survey equipment and adds in some sweets for the village children.

Trachoma, a neglected tropical disease (NTD), is one of the main causes of blindness in Southern Sudan. Like other NTD's, it is associated with poverty and poor hygiene. Trachoma is an infectious disease that is transmitted through flies or through contact with eye and nose secretions from an affected person.

This large-scale trachoma prevalence survey was supported by the United States Agency for International Development through RTI International. Led by Malaria Consortium, eight hundred households in forty villages throughout Unity State were surveyed to determine the prevalence of trachoma in an area the size of Belgium. The data gathered during this four-week survey is required by the International Trachoma Initiative to decide whether the state requires large-scale antibiotic treatment, as well as other interventions critical for the elimination of trachoma from Southern Sudan, in which case antibiotic treatment will be donated for as long as needed.



Photo: Kyoko Kanda

Caption: Line shaped settlement in Panyijar County, Unity State, Southern Sudan.

Anthony Kirr, Abiemnhom's County Health Department Director, is one of the survey team members. Kirr helps the international staff to communicate with villagers and to shed light on their motives – crucial nuances that help to inform the survey results. “This mother does not clean her children's faces regularly,” says Kirr, questioning a mother in Nuer and translating the response

into English. What is the reason? River water is a scarce commodity, so this family relies on only a single water container for drinking and cooking. Limited access to safe water for communities leads to poor hygiene practices, in turn increasing the chances of trachoma being transmitted. Water for cleaning themselves, their children or their clothes is a luxury many families such as this one cannot afford.



Photo: Kyoko Kanda

Caption: A child covered in flies. Flies transmit trachoma from infected people to others.

The mapping team noted another common issue across villages they surveyed – namely dung from livestock and human feces exposed on the ground, providing breeding and resting sites for flies, hence heightening the spread of trachoma. While one solution could be the introduction of pit latrines, Kirr gathered during interviews that “village people are not open to speak about their privacy...Before encouraging people to build and use pit latrines, we need to educate them and help them understand that clean environment links to good health.” This information will help to design successful trachoma control measures.

Preliminary analysis of the survey data showed that all of Unity State is hyperendemic for trachoma, meaning that everyone needs to receive antibiotic treatment once a year for five years. These results thus provide the foundation on which people in Unity State will for the first time be treated for trachoma, ultimately improving the quality of life of more than one million people.