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Nomadic populations remain a vulnerable group, disproportionately affected by malaria. Vestergaard is partnering with Médecins Sans Frontières (MSF) to address the urgent need for tailored and effective malaria interventions by providing 10,000 PermaNet® Dumuria nets for nomadic populations in South Sudan. In this interview with **Corey LeClair**, a vector-borne disease control referent at MSF, we explore the partnership between Vestergaard and MSF to address the urgent need for tailored and effective malaria interventions for nomadic populations.

How did the partnership between MSF and Vestergaard come about?

At MSF, our interest has always revolved around more innovative tools that are fit for purpose, so Dumuria nets were on our radar. In South Sudan, we found Dumuria nets distributed in the early 2000s which are still in use in the population, which was really amazing. I also found locally made Dumuria nets (which are non-impregnated cloth nets) in many of the houses I visited, with at least one locally made Dumuria present and in use in around 40% of the houses.

It was clear to us early on that Dumuria is durable, which you need for that environment, but we also saw a strong local demand and knowledge around net use – malaria is something that's very well understood in these communities. As we talked more with them, we understood how highly prized and sought after the locally made Dumuria nets were. As the communities move in search of water, food, and pasture, Dumuria nets are relied on for privacy, security and warmth. The nets are also often used by the men who sleep outside to guard their cattle or as a place to eat while staying protected from the flies.

What are the specific challenges for treating and preventing malaria in nomadic communities that MSF comes across?

When we encounter nomadic communities, we find that disease burdens are very high, and vulnerabilities are multiple. One of the biggest challenges we face with mobile groups is having frequent points of contact, and making these points of contact with health services have a lasting impact on their overall health. On a country level, the strategies for malaria prevention in these marginalised and mobile groups is not very well defined. Where it is defined, they rely on stationary, facility-based health service provisions. There are large portions of the year, where these communities don't have access to health services.

The suitability of our core vector control tools is also limited for achieving the synergy between diagnostics, therapeutic measures, and effective prevention measures that we strive for. As we're studying the limits of the traditional mesh based ITNs in contexts where the environment and personal use practices really have an impact on durability, we began envisioning the partnership to distribute Dumuria nets as a value for money. What are we procuring with the money that we're spending? We decided to invest in something that is more durable, locally tailored and likely to have a high acceptance rate in the population and will help us overcome the additional costs and limits associated with the continued reliance on traditional mesh nets that have limitations in such environments.

What impact are you hoping this partnership will have on the nomadic communities in South Sudan?

With Dr Natacha Protopopoff (Swiss TPH), Dr Jackie Cook (LSHTM) and Azzurra Dinca (MSF EH Unit), we're working on way to properly quantify the epidemiological effect of the Dumuria nets, because there is a gap in the humanitarian evidence space as it is very difficult to measure interventions in these mobile and migrating groups.

We are hoping that there will be an impact on disease incidence, but even more so that there will be a decrease in severe cases, the need for referrals, and mortality. When looking at mobile groups that are supported by community health workers, limiting the number of severe cases and referrals is vital, as the health systems usually have very limited capacity to accept and effectively manage severe cases, which are referred to hospitals that are more than 50km away.

We are also interested in seeing the role of Dumuria nets as a mitigation tool for climate

change. Due to weather extremities associated with climate change, like droughts and floods, mobile groups are staying in the same fewer areas at higher numbers for longer durations, that is the completely the opposite of their normal lifestyle. Dumuria nets could also potentially have a broader impact on epidemic prevention in these marginalised groups.

How important are tailored malaria interventions for ensuring effective malaria prevention and treatment in marginalised groups?

We believe that Dumuria is a tool that is effectively tailored to nomadic communities to keep to health services high and make sure that there’s an equity investment in the healthcare. This partnership with Vestergaard touches on a number of core principles, not just that of MSF, but of the way we think that malaria control globally needs to begin to envision itself. If we can continue to have similar collaborations between population, industry, academia and manufacturers, we can open the pipeline for other organisation that work with these marginalised groups, to provide them a cost-effective and synergistic tool for their population health.