On the Road in Kilifi County: HAI Launches Snakebite Programme in Kenya

by BEN WALDMANN, Snakebite Project Manager and SOPHIE VON BERNUS, Project Associate

Health Action International's (HAI) snakebite team temporarily traded the grey skies of Amsterdam for the sunny coasts of East Africa. Communities living near the picturesque shorelines surrounding Mombasa, Kenya, are well acquainted with the risk of snakebite. Snakebite envenoming is a global health threat common throughout sub-Saharan Africa and, following advocacy efforts by HAI and its partners, was reinstated on to the World Health Organization's priority list of neglected tropical diseases (NTDs) in June 2017. HAI's Snakebite Project Manager, Benjamin Waldmann, and Project Associate, Sophie von Bernus, rolled up their sleeves and went on the road with our newly recruited Project Coordinator for Kenya, Royjan Taylor, to launch HAI's civil society-led Snakebite Programme in Kilifi County.

Hours on the Road to Reach Remote Health Facilities

In early December, Ben and Sophie spent time in the field accompanying Royjan and his team of professional snake handlers as they travelled through Kilifi County, visiting each and every health facility—a process vital for developing a comprehensive evidence base on the snakebite problem in the area. They gathered crucial insight into challenges faced on a daily basis by local communities and rural health facilities handling the burden of snakebite. It doesn't take long before those challenges are visible—Kilifi County is by no means the largest of the 47 counties scattered across Kenya, but the difficulties in transport infrastructure to rural communities mean that many remote health facilities can take hours to reach. This is a common issue for many rural areas with a snakebite problem, across the tropical world. Immediate treatment is imperative following a venomous snakebite; for snakebite victims, those crucial hours on the road too often translate into death or life-long disability.

Education is Key

In preparation for the trip, HAI developed the poster *"Common Venomous Snakes of Kenya"*, in collaboration with the James Ashe Antivenom Trust. The poster, distributed to communities across Kilifi County, provides an overview of common venomous snakes in the country. The main message is that, when bitten by any kind of snake, people should go quickly to the nearest health facility; so frontline healthcare workers can provide timely medical treatment. The poster is to become a part of the community education that is being done on the ground by Royjan, and essential for saving lives in Kilifi County—many communities across the tropical world can learn lessons in dealing with this crisis. But the

problem is by no means solved—the shortage of safe, affordable, accessible and effective antivenom is a constant struggle and becomes even more rampant when you solve the challenge of getting victims to bypass the convenient traditional healers and instead put their faith in the long road to a health facility.

The Production of Life-Saving Antivenom

Royjan not only plays a major role in educating and informing people about snakebite; his world-renowned Bio Ken Snake farm is home to the largest collection of snakes in East Africa. The team saw the intricate process of milking venom to produce life-saving antivenom and got a first-hand view of the vast selection of snake species. Bio Ken's diverse and sizeable snake collection shows how important it is to translate clear, simple and sometimes life-saving education in rural communities. Differentiating snake species adds a layer of complexity to making the right medical diagnosis, and often contributes to a delay in appropriate services and treatment.

Face-to-Face with a Puff-Adder

On the final day of the trip, the team accompanied Royjan and his snake handlers just five minutes down the road in Watamu, following a call from a member of the public reporting that a snake had been identified in someone's home—a type of call that Royjan and his team receive sometimes daily. Soon enough they were in the presence of a large Puff Adder—a venomous snake commonly found in the area, and estimated to cause over 80% of snakebites in sub-Saharan Africa. A very valuable first-hand experience of an incident, which, in other circumstances, could have ended up with a victim requiring emergency health care treatment and the precious administration of antivenom, which accompanies it. This time it was a successful visit without any casualties, leaving behind a local community now equipped with the important education tools to prevent snakes from entering residential areas in the future, and who know to take the crucial steps of first aid and health seeking behaviour in case of a bite.

Bringing the Right People Together

A short pit stop in Nairobi enabled the team to meet with a range of stakeholders working directly or indirectly on the snakebite problem across the country, including medical professionals, university professors, supply chain managers, policy leaders and civil society actors. The multi-stakeholder group will meet frequently in order to review and evaluate the project in Kilifi County and create a clear policy voice based upon the evidence-based advocacy that the project is generating.

HAI's snakebite team is looking forward to the next steps of the programme: In 2018, the evidence generated from data collection will be reviewed to gain key insights into the current snakebite situation in Kenya, forming a solid base for in-country advocacy. In addition, HAI will organise civil society training on snakebite prevention, first aid, and evidence-based advocacy. After having evaluated the launch in Kenya, the programme will then be expanded into Uganda and Zambia.

Health Action International has been at the forefront of advocating for the reinstatement of snakebite envenoming on to the World Health Organization's (WHO) priority list of neglected tropical diseases (NTDs) since 2016. Following WHO reinstatement in June 2017, HAI moved on to the next step of its programme to improve snakebite prevention and treatment: Creating a new, civil-society led research, education and advocacy programme in Kenya, Uganda and Zambia.

The objectives of HAI's Snakebite Programme are to:

a. Gather evidence from health facilities on snakebite incidence rates, as well as the price, availability and affordability of treatments and commodities, including antivenom.

b. Educate and inform communities and civil society about effective snakebite prevention, first-aid and treatment. The programme will also support appropriate training of healthcare workers to deliver effective snakebite management and provide recommendations for health authorities to manage snakebite across the health system, particularly in rural communities.

c. Empower members of civil society by equipping them with evidence and advocacy skills to press for greater action on snakebite. The Snakebite programme will form a multi-stakeholder group, chaired by a civil society representative. This group will use the programme's evidence to develop and deliver policy recommendations on snakebite prevention and treatment to government and health authorities.

The programme is currently being piloted in Kilifi County, before expanding across Kenya, and then into Uganda and Zambia. It is being rolled out in collaboration with the Watamu-based antivenom provider, James Ashe Antivenom Trust, led by Royjan Taylor, and the Global Snakebite Initiative.