

A strategic approach to snakebite community engagement

This guest piece by Dr. Denis Kibira, Chief Executive Officer of [DUMAIC Global Health](#) and Coordinator of the [Medicines Transparency Alliance \(MeTA\)-Uganda](#), is part of an informative series developed by members of the Snakebite Community Engagement Network (SCEN) Steering Committee. SCEN is a network of snakebite experts from low- and middle-income countries (LMIC's) involved directly or indirectly in community-based work aimed at improving snakebite prevention, first-aid, treatment, research and policy advocacy.

Here, Denis provides an overview of the Snakebite Management Strategy he has been actively contributing for years now, which once approved by the Ugandan government can have a positive impact on snakebite affected communities.

The medical importance of snakes

There are more than 3,000 species of snakes in the world, 600 of which are venomous and 200 are considered by the [World Health Organization \(WHO\)](#) to be 'medically important'.^[1] WHO has classified the medical importance of snakes into two main categories: Category 1 consists of snakes that they are highly venomous, common or widespread and cause numerous snakebites, resulting in high levels of morbidity, disability or mortality; while Category 2 consists of snakes that are highly venomous and are capable of causing morbidity, disability or death, but which bite less frequently or for which epidemiological or clinical data is lacking.^[2]

In Africa, there are almost 400 snake species across the continent, approximately 100 of which are medically important, and about 30 tend to cause human deaths.^[3] The venomous species of medical importance on the continent are members of the following four families: Mole vipers or burrowing asps (*atractaspididae*), cobras (*colubridae*), elapids (*elapidae*) and vipers (*viperidae*).

A bite by a venomous snake can cause an acute medical emergency which may involve: severe paralysis that may prevent breathing; a bleeding disorder that can result into fatal haemorrhage; irreversible kidney failure; and severe local tissue destruction that can lead to permanent disability.^[4] The medical importance of a snake species is determined by several factors, including the need for medical attention after a bite, the level of envenoming caused by the snake, the likelihood of death of the victim, the long-term consequences, availability of anti-venom for the snake species in question, and the size of the population at risk.^[5]

Snakebite danger and dilemma

Besides the species of the snake, the danger associated with snake venom depends on the

size of the victim, the location of the bite, the amount and nature of venom injected, the speed of venom absorption into the victim's system, and the amount of time between the bite and the initiation of treatment.[6]

Snakebite commonly affects people of low socio-economic status living in rural areas, working in gardens, looking after livestock, and living in poor housing, with poor access to emergency and critical care.[7][8] However, there is a dilemma of limited availability of antivenom and other health technologies to provide supportive management of snakebite envenoming public facilities and the high cost of treatment in private sector estimated for one patient at USD 1,300.[9]

Countering snakebite myths strategically in Uganda

Snakebite can be prevented and effectively treated[10] through increased community involvement. That's where groups like the Snakebite Community Engagement Network can have a real impact. By working directly with communities and sharing best practices from years of experience on the ground, the Network strengthens the capacity of community experts to undertake coordinated responses that reduce snakebite deaths and disabilities around the world. Promoting community awareness and empowerment will counter the myths, misinformation, negative beliefs, and harmful practices which delays accessing first aid and emergency care in the health facilities.[11] In most developing countries, up to 80% of individuals bitten by snakes first consult traditional practitioners before visiting a medical facility[12] due to widespread cultural and religious mythological symbols. The widespread use of unproven traditional treatments is a major contributed to delayed management, reporting of snakebite cases.[13]

WHO's global strategy, [Snakebite Envenoming: A Strategy for Prevention and Control \(2019\)](#) aims to prevent and control snakebite envenoming in order to halve the numbers of deaths and cases of disability that it causes by 2030. The Strategy has four focal objectives: 1) Empower and engage communities; 2) Ensure safe and effective treatment; 3) Strengthen health systems; and 4) Increase partnerships, coordination and resources. In order to effectively manage snakebite envenoming, countries ought to adopt the WHO global strategy into their local settings. Uganda has developed a draft strategy for Snakebite Prevention and Management aimed at developing a mechanism to ensure reduction in morbidity, disability and mortality caused by snakebite envenoming in the country. It is our hope that this strategy can be approved by government and widely disseminated to all stakeholders to improve snakebite awareness, first aid and treatment in the communities and strengthen planning and financing of snakebite work.

Interested in joining the Snakebite Community Engagement Network? Find out more and register [here](#).

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<https://apps.who.int/iris/handle/10665/204458?locale=ar&null>.
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