

HAI SNAKEBITE PROGRAMME IN SUB-SAHARAN AFRICA



ABOUT SNAKEBITE ENVENOMING

- Conservative global estimates show that snakebite envenoming kills 81,000–138,000 people every year and permanently disables 400,000 more.^{1 2}
- In sub-Saharan Africa, snakebite is estimated to cause about 32,000 deaths and 6,000 amputations a year.
- The economic burden from snakebite envenoming in sub-Saharan Africa is largely under-researched and unknown, but likely high. A study showed that snakebite treatment costing GBP3 is unaffordable in developing countries. Yet, treatment and transport costs often add up to several years of income.^{3 4}
- The World Health Organization (WHO) and Members States have started prioritising

snakebite envenoming. The WHO added snakebite to its high-priority ('Category A') list of neglected tropical diseases in 2017; the 71st World Health Assembly adopted a Resolution on Snakebite Envenoming in 2018.

KEY ISSUES IN SUB-SAHARAN AFRICA

- **Under-reporting:** Our research found 593 snakebite cases in 140 facilities in Uganda, and 875 snakebite cases in 97 facilities in Zambia. These rates are likely low given that approximately 70% of snakebite cases go unreported in sub-Saharan Africa.⁵
- **Antivenom:** Quality antivenoms can make the difference between life and death, but there are serious shortages. Our research found that just 4-10% of surveyed healthcare facilities in Uganda, Zambia, and Kilifi County,

Kenya, had antivenom in stock—but most of these antivenoms were unsafe, ineffective, or unaffordable. Subsequently, snakebite treatment commodities (such as antivenom, adrenaline, antibiotics and syringes) were stocked out 10 days per month in Uganda and 7 days per month in Zambia.

- **Survivors:** Many snakebite envenoming victims who survive are left with a permanent disability, such as limb amputation and blindness. Survivors are also often plunged further into debt—even destitution—because of high treatment and transport costs, and the loss of income.
- **Healthcare workers:** Training of healthcare workers is lacking and not part of medical curricula. Our survey in Kilifi County, Kenya, Uganda and Zambia, for example, found that 79.5–91% of healthcare workers in the public sector received no snakebite training at all.
- **Traditional healers:** Our research reaffirmed the finding that at least 50–68% of snakebite victims in sub-Saharan Africa seek initial traditional treatment due, in part, to the above-mentioned factors.⁶ These treatments are not proven to work, can worsen snakebite injuries, and waste precious time for a victim to receive timely medical care.

THE HAI SNAKEBITE PROGRAMME

HAI's Snakebite Programme operates in Kenya, Uganda and Zambia in collaboration with the Global Snakebite Initiative and our country partners, including the James Ashe Antivenom Trust, Bio-Ken Snake Farm and HEPS Uganda.

Programme Activities

- **Building a snakebite evidence base:** We are gathering much-needed data from healthcare facilities and communities on snakebite cases and antivenom treatment.
- **Conducting evidence-based advocacy:** We are developing champions and building multi-

stakeholder groups of snakebite experts, led by civil society, which regularly meet to review and use our data to call for policy changes by national stakeholders, including health ministries.

- **Increasing community education:** We are providing communities with information and tools to learn how to prevent snakebite and provide effective first-aid and treatment for it.

Programme Goals

- **Empowered communities:** Communities independently reduce the number of snakebite cases through awareness and education tools.
- **Mandatory snakebite reporting:** Government authorities make snakebite a notifiable or reportable disease by law.
- **Treatment available for all:** Health authorities take steps to ensure antivenom is provided to everyone and is safe, effective, and affordable.
- **Effective healthcare interventions:** Evidence from our Programme encourages proper training of healthcare workers, including tools for rehabilitation and disability services.

WHO WE ARE

- **Health Action International (HAI)** is an independent non-profit organisation. Using research and advocacy, we advance policies that enable access to medicines and rational medicine use.
- **Global Snakebite Initiative (GSI)** is a non-profit organisation of experts created to give voice to the forgotten victims of snakebite.

FOR MORE INFORMATION

Ben Waldmann
Snakebite Programme Manager
Health Action International
ben@haiweb.org | +31 20 412 4523 | haiweb.org

ENDNOTES

¹ Kasturiratne, A., Wickremasinghe, A.R., de Silva, N., et al., 2008. The Global Burden of Snakebite: A Literature Analysis and Modelling Based on Regional Estimates of Envenoming and Deaths. *PLoS Medicine*, 5(11): e218.

² Gutiérrez, J.M., Burnouf, T., Harrison, R.A., et al, 2014. A multicomponent strategy to improve the availability of antivenom for treating snakebite envenoming. *Bulletin of the World Health Organization*, 92(7):526-532.

³ Habib, A.G. and Brown, N. I. The snakebite problem and antivenom crisis from a health-economic perspective. *Toxicon*, 150, 115–123 (2018).

⁴ Theakston, R. D. G. a Warrell, D. A. Crisis in snake antivenom supply for Africa [14]. *The Lancet*, 356, 2104 (2000).

⁵ www.who.int/snakebites/epidemiology/en

⁶ Harrison, R.A., et al., Snake envenoming: a disease of poverty. *PLoS Neglected Tropical Diseases*, 2009. 3(12): p. e569.