FACT SHEET
SNAKEBITE **INCIDENTS, RESPONSE & ANTIVENOM SUPPLY** (UGANDA)

May 2019


Photo: Lillian Lincoln Foundation / *Minutes to Die* Documentary

PURPOSE OF OUR RESEARCH

Snakebite is a significant, but long-neglected problem that affects the lives of more than half a million people annually.[1] In Uganda, specifically, no data is available on the burden of snakebite. As part of its Snakebite Project, Health Action International (HAI) is developing an evidence base on snakebite in Kenya, Uganda and Zambia. This research is the first of its kind in Uganda, serving to improve the situation for neglected snakebite victims. The results will enable national and regional policy-makers, including the Ugandan Ministry of Health, to develop and implement strong policies and programmes that improve snakebite reporting, prevention, treatment and rehabilitation.

RESEARCH METHODOLOGY

Initial research in Uganda was conducted in health facilities and communities and included a health facility questionnaire to healthcare workers (144 facilities), an adaptation of the HAI-World Health Organisation methodology, *Measuring Medicine Prices, Availability, Affordability and Price Components*[2], conducted at 118 facilities, and community interviews (37) and focus group discussions (4) spread throughout Uganda.

SURVEY RESULTS

Snakebite cases

Health facility research showed that in 140 of the surveyed facilities, 593 snakebite cases were recorded in the past six months. According to healthcare workers, most snakebites occur in the rainy seasons, from April to June and from October to December. Healthcare workers further

believed that there were no differences in snakebite incidents between sex, most snakebite patients were aged 0-45 (96%), and the activity most often performed when bitten was walking (24%), or farming (39%). It was possible to give several age groups as an answer.

Treatment

In the facilities surveyed with the health facility questionnaire, supportive treatment was the most common treatment given across the public (88%), private (100%) and mission (89%) sectors. Only 22% of public sector healthcare workers believed they had the equipment, and 29% the knowledge, to treat snakebite. Furthermore, only 8% of the public sector healthcare workers had received training on snakebite management.

Commodities availability

Through the commodities research, it became clear that snakebite commodities had, on average, low availability (42%). Antivenom was available in 10% of higher-level (district hospital and up) public facilities, and in 2% of the mission facilities. The reasons for the low availability is, according to participants, a lack of supply, the level of the facility, and the high price of the antivenom. Other important commodities, such as anti-tetanus immunoglobulin, epinephrine, and morphine also had low availability, if available at all. Some commodities had high availability (80% and up) in the private and mission sectors, including metronidazole, paracetamol, hydrocortisone and prednisolone.

Commodities stock-outs

The commodities research also collected data on stock-outs, showing that stock-outs occurred in 27% of public sector facilities, and in 6% of mission facilities. Antivenom was stocked out in all public facilities that were supposed to have it in stock, and these stock-outs lasted an average of 10 days per month.

Finally, affordability was calculated and, in the public sector, no commodity cost more than a day's income for any decile of the population. However, when a commodity is not available at the facility, the patient must buy the commodities in the other sectors, where affordability seems to be a major issue. For instance, in the private sector, the cost of one vial of antivenom ranged from 30 days of income to more than 385 days.

Communities

The community research revealed little knowledge on snakes and snakebites and various beliefs that influence the effective health-seeking behavior after a snakebite. The majority of the participants did not possess the knowledge that not all snakes are venomous. Generally, snakebite patients initially use traditional treatments after a snakebite. This is due to barriers in reaching health facilities, such as the costs and the distance to the facilities. Beliefs around snakes play a role in the health behavior as well. The beliefs appear to be clan-related and include that snakes can protect or be dangerous to clans, and are associated with superstition and witchcraft. The participants felt that their circumstances, such as poverty, and occupations, such as farming, increase the chances of a snakebite. The economic effect of snakebite is regarded as being high due to the costs for transport to the health facilities, for care, and the loss of income.

NEXT STEPS

The findings are being discussed by a Ugandan multi-stakeholder group of experts. Policy recommendations have been formulated to improve access to safe and effective snakebite treatment and increase the training of healthcare workers, as well as the awareness among communities. The recommendations have been disseminated to national policy makers. Furthermore, educational materials will be developed and distributed to increase knowledge about snakebite treatment, first-aid and prevention.

MORE INFORMATION

Sophie von Bernus, Snakebite Project Officer, Health Action International
+31 20 412 4523 | sophie@haiweb.org | haiweb.org

Denis Kibira, Snakebite Programme Coordinator (Uganda), Health Action International / Director, HEPS Uganda
dkibira@heps.or.ug | hepsuganda.org

ENDNOTES

1. Gutiérrez JM, Calvete JJ, Habib AG, Harrison RA, Williams DJ, Warrell DA. Snakebite envenoming. *Nat Rev Dis Prim*. 2017;3:17063.
2. World Health Organization, Health Action International. *Measuring Medicine Prices, Availability, Affordability and Price Components*. 2nd ed. Geneva: World Health Organization; Health Action International; 2008.