

# Snakebite in Bangladesh: A Hidden Public Health Concern

Snakebite is a critical public health issue in Bangladesh, particularly affecting the rural population. With a significant number of snake species inhabiting agricultural lands, the risk of snakebites is high, particularly during the monsoon season when snakes are more active. Despite being a largely preventable health crisis, snakebites lead to thousands of deaths and countless injuries each year, revealing a gap in public awareness, healthcare access, and medical resources.

The World Health Organization (WHO) estimates that snakebites result in approximately 5.4 million cases globally, causing over 138,000 deaths annually. In Bangladesh, it is estimated that there are around 25,000 snakebite incidents each year, leading to fatalities ranging from 1,000 to 3,000<sup>1</sup>. The rural communities, primarily involved in agriculture, are at the highest risk.

A study by the Bangladesh Health Watch (2021) indicates that snakebites disproportionately affect males, particularly those aged 15 to 45, who are often engaged in farming activities. The socio-economic impact is severe; families lose breadwinners and face significant medical expenses, exacerbating poverty cycles.

Bangladesh is home to several venomous snake species, including Indian Cobra (*Naja naja*), Russell's viper (*Daboia russelii*) and Krait (*Bungarus spp.*). Each species has different clinical presentations, which complicates diagnosis and treatment<sup>2</sup>.

One of the most pressing challenges in managing snakebites is access to medical treatment. Antivenom is the primary treatment for snakebite envenomation, but its availability is limited, particularly in rural healthcare facilities. Many areas lack the necessary stock of antivenom, forcing victims to seek treatment far from home.

Many healthcare providers in rural Bangladesh do not have adequate training in snakebite management<sup>3</sup>. As a result, misdiagnosis and inappropriate treatments are

common, leading to increased morbidity and mortality.

In many rural communities, traditional healers are often the first point of contact for snakebite victims. While these healers may provide immediate assistance, their methods often lack scientific backing and can delay effective medical treatment. 70% of snakebite victims initially sought help from traditional healers before going to a medical facility<sup>4</sup>.

The time taken to reach a healthcare facility is critical in snakebite cases. Factors such as distance, transportation issues, and financial constraints often delay treatment. Victims who received treatment within four hours of the bite had a significantly higher survival rate compared to those treated later<sup>5</sup>.

Public awareness campaigns about snakebite prevention and management are essential for reducing the incidence of snakebites in Bangladesh. Many rural residents lack knowledge about identifying venomous snakes and understanding the risks associated with snakebites.

The management of snakebites in Bangladesh follows guidelines set by the WHO, which emphasize the use of antivenom as the mainstay of treatment. Antivenoms are species-specific, and it is crucial to administer the correct type for effective treatment.

Successful community-based initiatives have emerged in various regions of Bangladesh. In one district, a local NGO implemented a program that trained village health workers in snakebite management and prevention. As a result, there was a reported decrease in snakebite-related fatalities over two years<sup>6</sup>.

The Bangladesh government, in collaboration with international health organizations, has started initiatives to stock rural health facilities with antivenom and improve healthcare infrastructure. These interventions aim to ensure timely access to treatment and reduce snakebite morbidity and mortality<sup>7</sup>.

Snakebite remains a significant public health issue in Bangladesh, disproportionately affecting rural populations. Addressing this crisis requires a

multifaceted approach that includes improving healthcare access, increasing public awareness, and training healthcare providers. By implementing effective education and intervention strategies, Bangladesh can significantly reduce the burden of snakebites, ultimately saving lives and improving community health.

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