

# Snakebite Envenomation

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## Tamil Nadu Declares Snakebite Envenomation a Notifiable Disease

**Context:** The Tamil Nadu government has officially designated **snakebite envenomation** as a **notifiable disease** under the Tamil Nadu Public Health Act, 1939. This move aims to enhance the reporting, response, and treatment of snakebite cases across the state.

### About Snakebite Envenomation:

- Snakebite envenomation is a **life-threatening condition** caused by bites from venomous snakes. It can result in severe complications, including:
  - **Paralysis** that can impair breathing.
  - **Bleeding disorders** that may lead to fatal hemorrhaging.
  - **Irreversible kidney failure**.
  - **Severe tissue damage** at the bite site.
- The most effective treatment is **high-quality antivenom**, which can counteract or reverse many of the venom's toxic effects.

### Global Impact:

- **An estimated 5.4 million people worldwide** are bitten by snakes each year, with **1.8 to 2.7 million cases leading to envenomation**.
- Vulnerable groups include **agricultural workers, children, and residents in tropical and subtropical regions**.

### WHO's Response:

- The **World Health Organization (WHO)** recognizes snakebite envenomation as a **global public health issue** and has implemented a strategy to **reduce snakebite-related deaths and disabilities worldwide**.

### Snakebite Situation in India:

- India is home to **over 310 snake species**, with the majority being non-venomous.
- Of these, **66 species are classified as venomous or mildly venomous**. Most snakebite incidents involve the "Big 4" species:
  - **Russell's viper** (*Daboia russelii*)
  - **Spectacled cobra** (*Naja naja*)
  - **Common krait** (*Bungarus caeruleus*)
  - **Saw-scaled viper** (*Echis carinatus*)

### National Action Plan:

- The **Ministry of Health and Family Welfare** recently launched the **National Action Plan for Prevention and Control of Snakebite Envenoming**.
- This plan aims to **halve snakebite deaths by 2030** through a '**One Health**' approach that integrates human, animal, and environmental health interventions.

#### **Tamil Nadu's New Initiative:**

- By designating snakebite envenomation as a **notifiable disease**, Tamil Nadu seeks to improve data collection and strengthen healthcare response across the state.
- Key goals include:
  - **Enhancing clinical infrastructure** for snakebite treatment.
  - **Ensuring efficient distribution of antivenom** to healthcare facilities.
  - **Reducing mortality rates** and improving treatment accessibility.
- Under this initiative:
  - **Both government and private hospitals are required to report all snakebite cases and related deaths.**
  - The reporting system will integrate with the **State's Integrated Health Information Platform** under the **Integrated Disease Surveillance Program**.

#### **Addressing Underreporting:**

- Authorities have identified **significant underreporting of snakebite cases and deaths** in previous data.
- This **new reporting system** aims to close data gaps, allowing for more accurate tracking and better resource allocation to address snakebite envenomation in Tamil Nadu.

**In Summary:** Tamil Nadu's declaration of snakebite envenomation as a notifiable disease marks a crucial step in improving snakebite management, accessibility to treatment, and prevention in high-risk areas, ultimately aiming to reduce mortality and strengthen public health response.

