

# A NSW Review Of The Use And Location Of Snake Antivenom

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## Objectives

To reduce waste and improve management of patients with snakebites in New South Wales and the Australian Capital Territory by providing a state-wide approach to snake antivenom stocking.

## Design

A retrospective observational study assessing the current location of snake antivenom vials and comparing this to the number of vials used for snake envenomations in humans and the geographical distance from the bite site to the hospital that stocks the antivenom vials.

## Participants

Adults and children who have been previously recruited to the Australian Snakebite Project (ASP) with a confirmed or suspected snakebite.

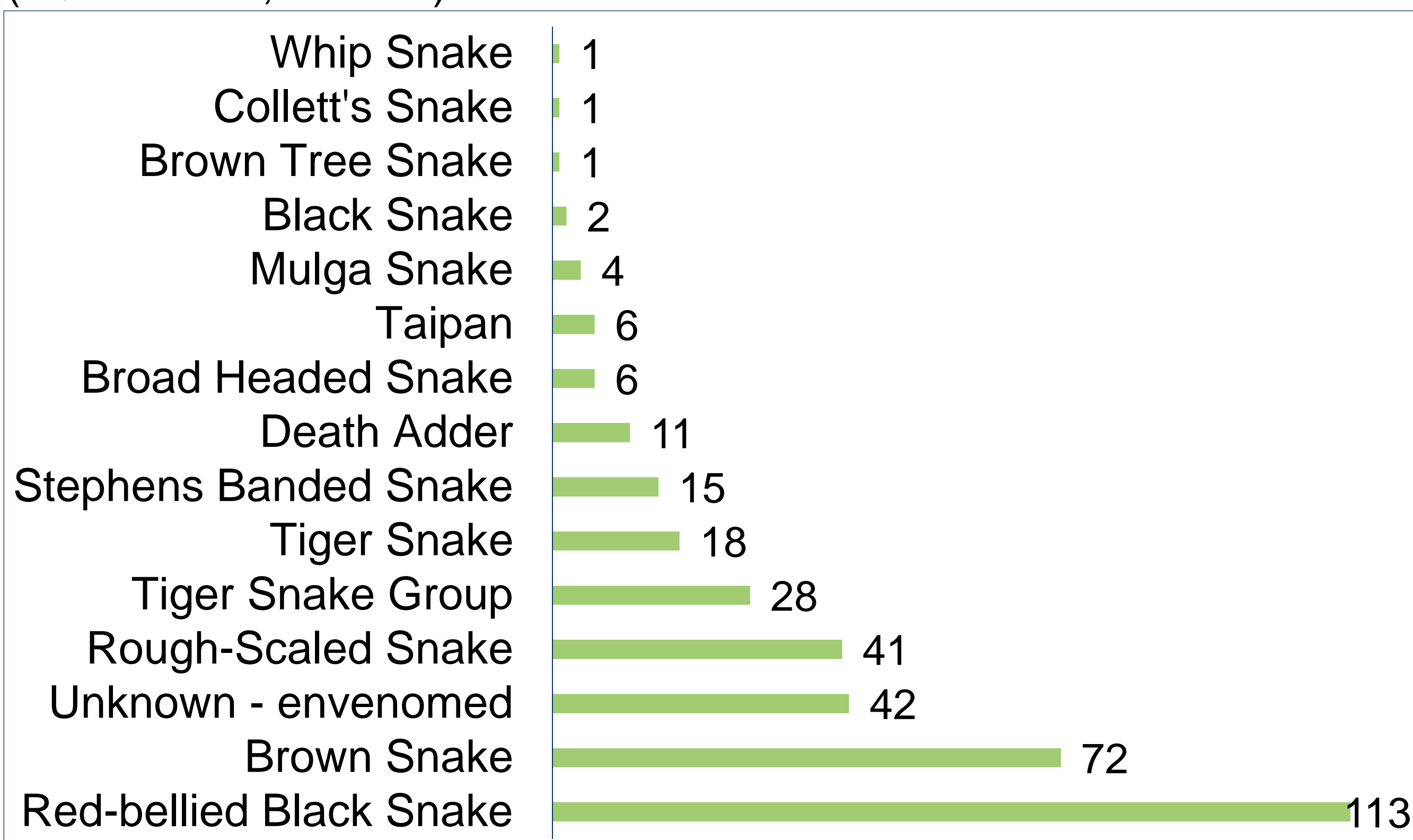
## Main outcome measures

Geographical location of the bite, distance to the hospital, quantity of antivenom used by each hospital and quantity of antivenom stock on hand.

## Results

772 snakebite cases were reviewed, of these 361 were envenomed and 306 patients received antivenom. (254 envenomed patients received antivenom, 52 non envenomed patients also received antivenom).

The median distance by road from geographical snakebite site to the facility that administered antivenom is 28.5km or 28mins transit time (IQR 45.8km, 35mins).



Graph 1: Number patients envenomed by snake type.

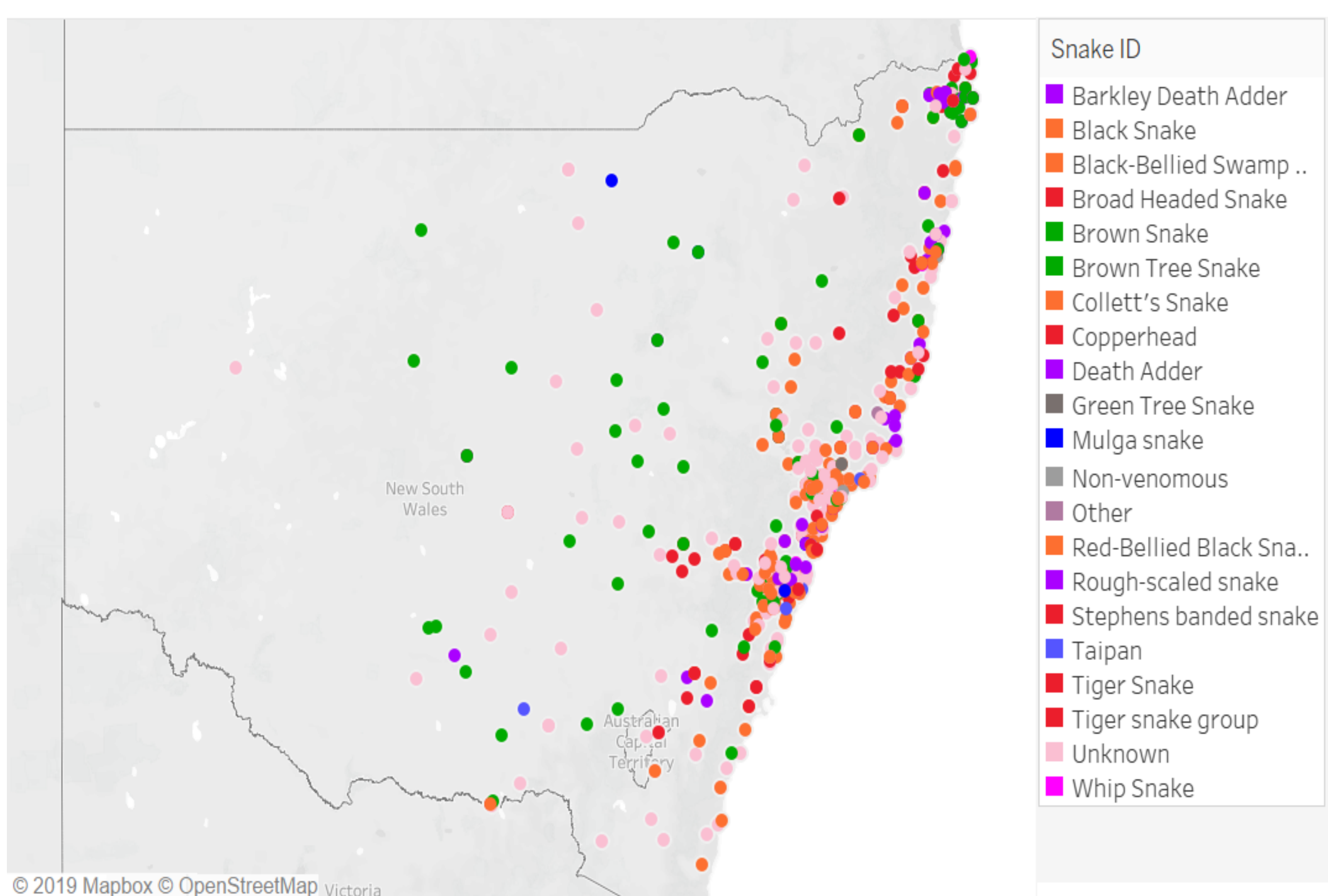
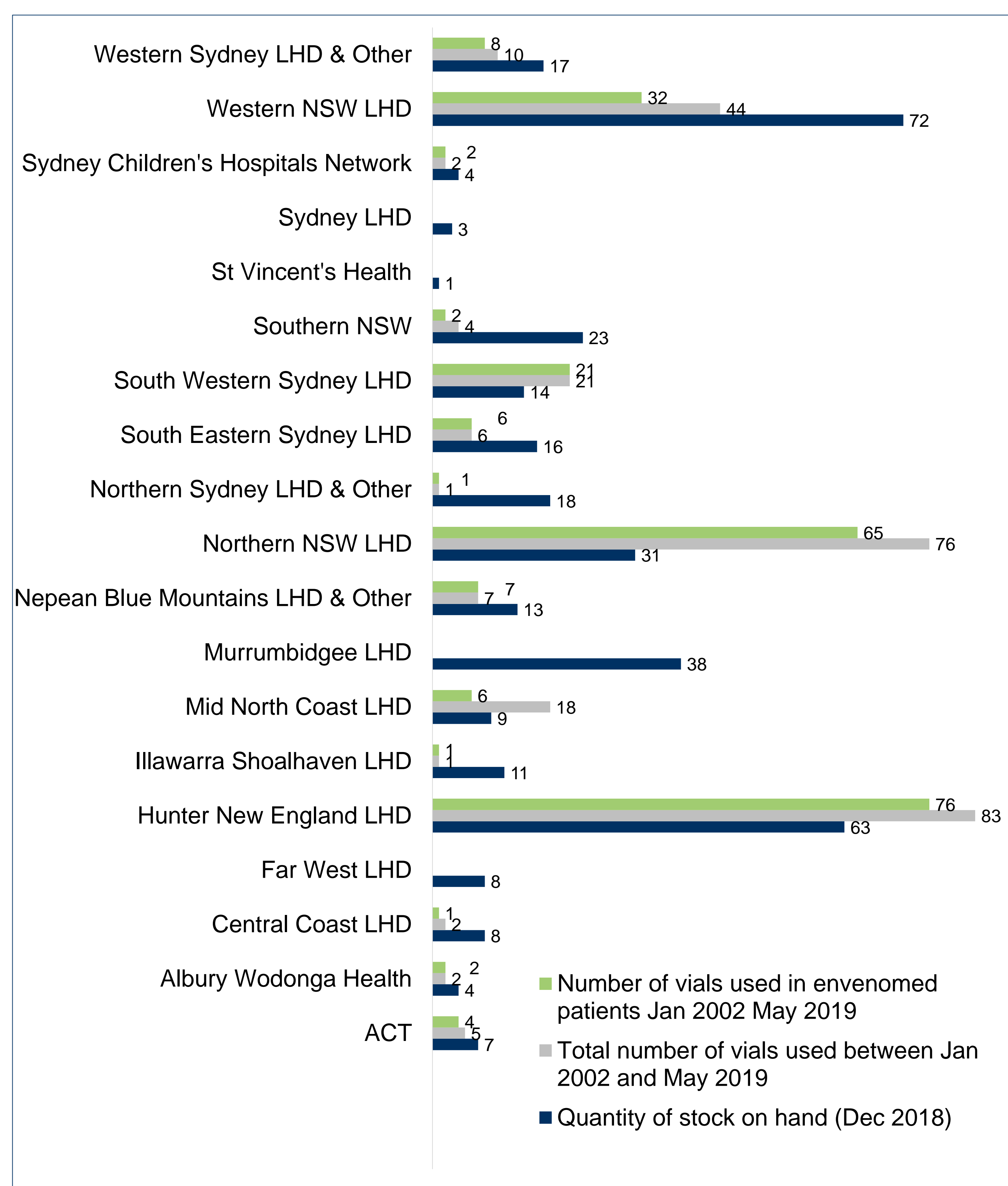


Figure 1: Geographical location of bite categorised by snake identification.



Figure 2: Map depicting the geographical location of snakebites and the location of the hospitals attended post bite.



Graph 2: Number of brown snake antivenom vials stocked as of December 2018 and used between January 2002 and May 2019 by Local Health District.

## Conclusion

Based on historical data many hospitals can safely reduce the quantity of antivenom on hand. Analysis of historical snakebite data can inform a state-wide approach to optimal stock levels. There is a need to be regularly reviewing antivenom location and stock levels in NSW and the ACT. A state-wide approach is needed to reduce waste and increase patient access to antivenom in a timely manner.