

Tropical Influenza Surveillance

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An outbreak of influenza A in the Top End of the Northern Territory three months prior to the usual winter season of influenza in Australia in 1995 highlighted the need for local surveillance. Influenza surveillance schemes in tropical countries such as Singapore and Thailand document a different seasonal pattern to the winter epidemics that are a feature of temperate areas. In tropical Australia, the pattern of influenza has not been documented.

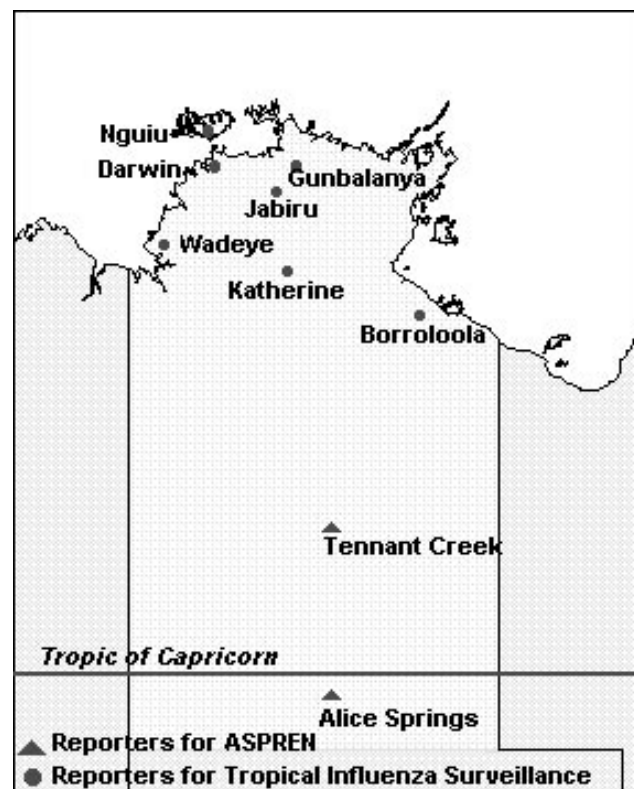
Darwin Disease Control has established a scheme for reporting influenza-like illness through sentinel general practitioners (GPs). It was initially piloted with five GPs between June and November 1995. It commenced in January 1996 with the enrolment of 29 reporters located throughout the tropical Top End of the Northern Territory (Figure 1).

The scheme's three objectives are to:

- document the seasonal pattern of influenza activity and assess the appropriateness of current timing of influenza vaccine administration;
- enable early recognition of influenza outbreaks to facilitate a timely public health response; this includes the early collection of appropriate specimens to characterise the causative agent and to compare it with those included in the current vaccine formulation;
- compare the timing of influenza outbreaks in the Top End with outbreaks in the rest of Australia and to assess if the Top End is in a unique position to

provide early information for each Australian influenza season.

Figure 1. Geographical distribution of sentinel general practitioners



The clinical case definition for this scheme is the one used by the Australian Sentinel Practice Research Network (ASPREN), the only national sentinel practitioner surveillance scheme for influenza, so the data from both systems are directly comparable. Six of the following are required:

- sudden onset of symptoms (within 12 hours)
- cough
- fever
- rigor or chills
- prostration and weakness
- myalgia or widespread aches and pains
- no significant respiratory physical signs other than redness of the nasal mucosa and throat
- influenza in close contacts

Participating GPs report the number of patients seen each week who meet this case definition as well as their total number of consultations. These data are used to calculate the rate of influenza per thousand GP consultations per week in the Top End. In the event of an increase in influenza-like illness, arrangements are

made through the emergency department of Royal Darwin Hospital and participating general practitioners to collect diagnostic specimens to identify the cause of the outbreak. So far this year, the scheme has documented a peak in March that was due to influenza A (Figure 2). Tropical Influenza Surveillance will be included in National Influenza Surveillance in future.

Figure 2. Sentinel general practitioner influenza surveillance, 1996, Northern Territory and ASPREN

