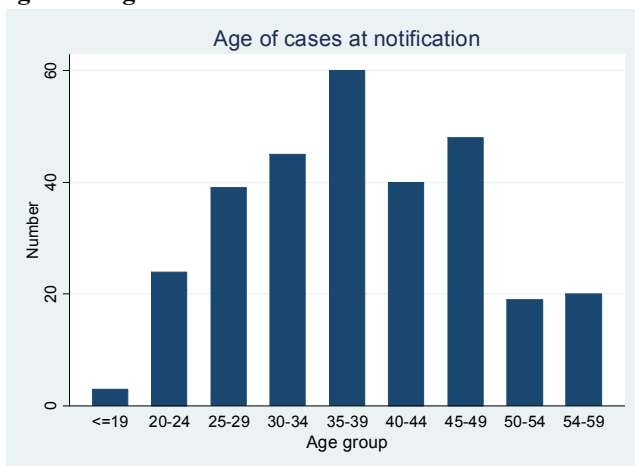



THE AUSTRALIAN MULTI-CENTRE STUDY OF ENVIRONMENT AND IMMUNE FUNCTION

(Ausimmune Study)

THE AUSIMMUNE STUDY – progress to end of Jan 2007.
Key points:

- ❖ There have been 319 persons with a first clinical diagnosis of central nervous system demyelination notified to the Ausimmune study and eligible to participate; of these, 292 are participating (92% response rate) (with others yet to decide about participation).
- ❖ 50% of controls randomly selected from the Australian Electoral Roll (n = 481) and age and sex matched to a case have agreed to participate in the Ausimmune Study.

RESULTS
Figure 1. Age distribution of case notified to the Ausimmune Study

Table 1. Male to female ratio of case notifications

Brisbane:	1:5.5
Newcastle:	1:3.4
Geelong:	1:2.1
Tasmania:	1:2.5
Overall:	1:3.1

Overall male to female ratio is 1:3.1, with some regional variation (see Table 1)

Figure 1 shows the age distribution of eligible cases notified to the Ausimmune Study. Mean age at notification is 38.1 years (note that with some cases self-notifying to the study following a letter sent by the local MS society, age at notification may not be age at onset of FDE).

Figure 2. Annual incidence of cases notified, by latitude, Nov 1 2003 to Oct 31, 2006

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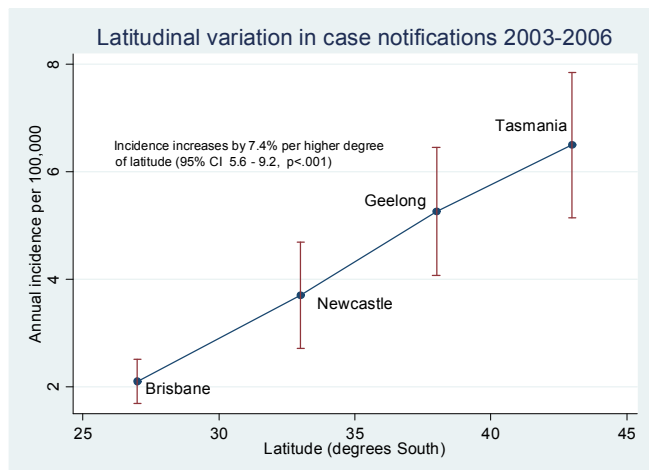
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Key points:

- ❖ There is a persistent latitudinal gradient in incidence of eligible case notifications: 7.4% increase in incidence per one degree increase in latitude (results to date)
- ❖ Case eligibility rests on a **first clinical diagnosis of demyelination**, after Nov 1 2003 and **before Dec 31 2006**. (Persons who give a history of a possible previous event are eligible for inclusion in the study, *if a physician diagnosis of demyelination has not previously been made.*)

Case recruitment in the Ausimmune Study is now almost completed, although we expect a few further cases to be notified to the study, where a first clinical diagnosis of central nervous system demyelination was made before Dec 31 2006, but due to the holiday season or other reasons there has been delay in notification to the study. The main focus of the Ausimmune Study nurses over the next few months will be to ensure that there are complete data on each case and two matching (on age and sex) community controls.

In addition, we are about to commence the final review of cases (3 years from notification to the study), to determine whether or not they have now developed multiple sclerosis. All consenting cases will be offered a repeat MRI (to a standardized protocol), neurological assessment and a nurse interview. This will allow examination of what factors affect progression (or not) to MS in those who have had first symptoms consistent with central nervous system demyelination. We are fortunate that MS Research Australia has sourced funds to enable the study to collect and store blood from consenting controls in a form suitable for the MS gene bank.

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The Ausimmune Study has received funding support from:

- The National Multiple Sclerosis Society of the United States
- The National Health and Medical Research Council of Australia
 - Study coordinator position
 - Equipment grants (2) for a spectrophotometer and an ultralow freezer
 - The role of EBV and HHV-6 in the onset of multiple sclerosis
- The ACT Health and Medical Research Council
- Multiple Sclerosis Research Australia
- The Multiple Sclerosis Society of Tasmania (to support the Tasmanian study region)
- The ANZ William Buckland Foundation (to support the Geelong study region)
- The Royal Australasian College of Physicians Cottrell Fellowship
- MS Research Australia
 - The Neil and Norma Hill Foundation
 - The Macquarie Bank
 - The Vincent Fairfax Family Foundation
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 - Mrs Heather and Mr Bill Webster
 - Mr John Lehmann
 - Pierce Armstrong Foundation

We would also like to acknowledge the support of MS Australia and the MS societies of Queensland, Tasmania and New South Wales and Victoria.

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