

## Hepatitis A Outbreak in an Extended Family March-April 2013

### CURRENT SUMMARY

A large extended family of 37 persons involving four households in Christchurch had a total of 12 cases of hepatitis A since January including several who travelled to Samoa in December as part of a family reunion group. They all returned to New Zealand mid- to late January. The first case was notified on 21 February. Six children who were hepatitis A IgM positive visited Samoa. Four of the children were asymptomatic and were not diagnosed until early April. Contact tracing has been complex because of the problems identifying the extent of contact amongst the wider family. This difficulty has been compounded by not knowing the period of infectivity of cases diagnosed on serology who had few if any symptoms.

### Cases

**Case 1;** (House A) A 10 year old boy was notified with hepatitis A having returned to Christchurch from 5 weeks before the onset of symptoms. Although when interviewed there was no indication of contacts outside the home, five weeks later a cousin from another household was also notified with hepatitis A.

**Cases 2 - 7:** (House B) A 19 year old cousin of case 1, who lived in a nearby suburb, in a house comprising six other adults and eight children including three who attended primary school 1 while symptomatic, was admitted to hospital with hepatitis A.

**Cases 8:** (House C) A 22 month old boy who had been symptomatic in Samoa in January was hepatitis A IgM positive on testing on 4 April.

**Cases 9, 10** (House D) Two children who travelled to Samoa were asymptomatic but hepatitis A IgM positive on testing. Both children attended primary school 2.

**Cases 11,12:** (House E) This family of four who visited Samoa and were also identified as contacts of cases were tested. Father and mother were both food handlers and immune, but the two children aged 4 years and 11 years were IgM positive and asymptomatic. The 4 year old attended a kindergarten at which there were also children under 2 years of age.

### CONTACTS

**Household:** Household members had blood taken for serology prior to hepatitis A vaccination.

#### Primary Schools

**No 1.** Although schools are considered to be low risk settings for hepatitis A transmission it was decided to do serology on pupils who had recently had symptoms of possible hepatitis A because three children (2 girls and a boy) from a household with significant spread (6 cases) had attended school when two had gastrointestinal symptoms. A questionnaire was sent home with each of the 160 children and 145 were returned from whom 32 children were identified for serology. All were hepatitis A IgM negative.

**No 2.** This school was attended by two girls aged 6 and 9 years who had visited Samoa, were hepatitis A IgM positive but asymptomatic.

#### Preschools/Kindergarten/Language Nests

One child, case 4, attending a kindergarten was hepatitis A IgM positive

Figure 1

**Onset Or Notification Dates Of Hepatitis A In An Extended Family Outbreak in Christchurch March-April 2013**

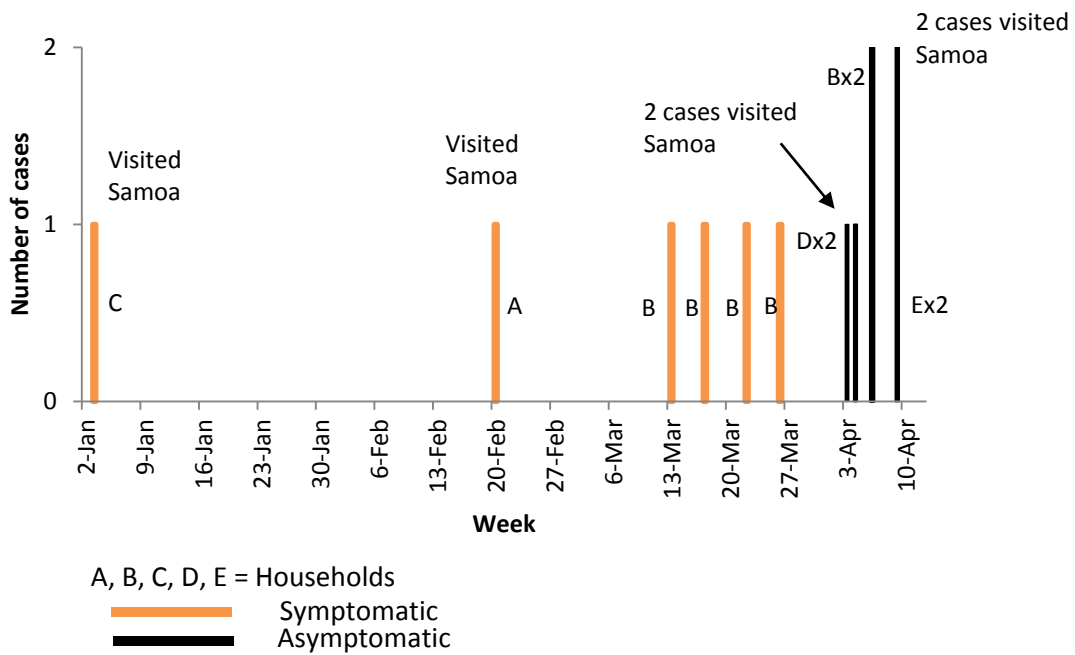
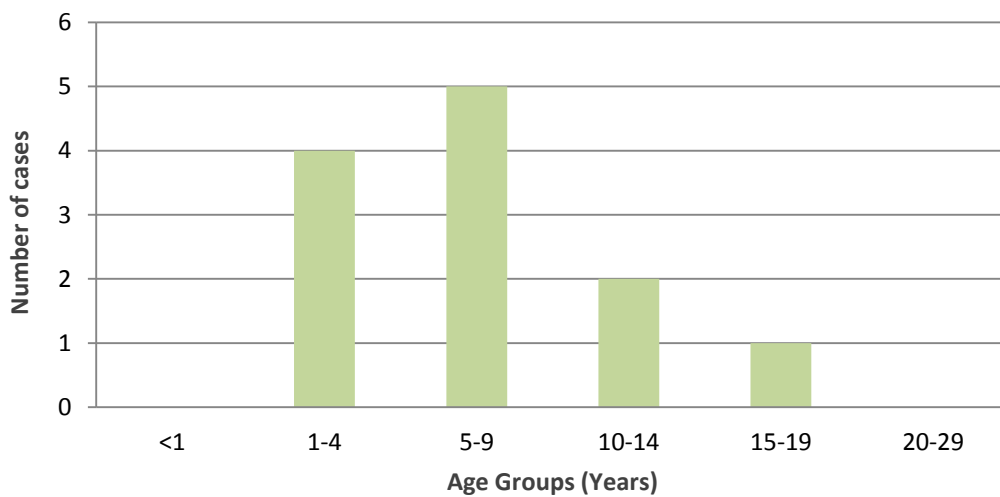


Figure 2

**Ages Of Cases: Extended Family Hepatitis A Outbreak 2013**



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**Summary Of Notifications**

<b>Total number of cases</b>	12
Males	7
Females	5
<b>Case Status</b>	
Confirmed	12
Probable	
Suspected	
<b>Age</b>	
Range	15 months – 19 yrs
Mean	7.3 yrs
<b>Hospitalisations</b>	
Cumulative number of cases	1
<b>Educational Institutions With cases</b>	
Preschools/Language Nests	1
Primary schools	3
Secondary schools	
Tertiary Educational Institutions	
<b>Contacts tested (not school contacts)</b>	34
Number immune	28
Number non immune	6

**Ethnicity**

	NZ European	Maori	Pacific	Asian	Other	Unknown
<b>Percentage of cases by ethnicity</b>	100%					
<b>Canterbury population</b>	82%	8%	2%	7%	1%	

**COMMENT**

- Contacts are being given hepatitis A vaccine
- The situation in the primary schools will continue to be monitored
- Contacts outside the extended family, including two food handlers, are being followed up
- Hygiene issues in the homes of cases are to be addressed including environmental cleaning
- Those attending the kindergarten including the staff have been vaccinated 12/4/2013.

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**Community and Public Health**

■ Christchurch office: PO Box 1475, Christchurch 310 Manchester Street, Christchurch, Telephone 03 364 1777, Facsimile 03 379 6125,  
 ■ Ashburton Office: PO Box 110, Ashburton, Telephone 03 307 6902, Facsimile 03 307 6904    ■ South Canterbury Office: PO Box 510, Timaru,  
 Telephone 03 687 2600, Facsimile 03 688 6091,    ■ West Coast Office: PO Box 443, Greymouth, Telephone 03 768 1160, Facsimile 03 768 1169  
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