

## Vector-borne Disease Notifications in New Zealand

TABLE 1: NUMBER OF NOTIFICATIONS OF MALARIA IN NEW ZEALAND, BY RISK FACTORS AND YEAR, 1997-2012

Risk factors	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Overseas travel during incubation period	55	58	38	62	45	45	34	29	28	27	22	34	43	41	40	33
Prior travel overseas, but not during incubation period	0	0	1	5	6	6	8	3	2	3	2	3	7	3	12	5
No overseas travel, prior travel unknown	10	15	7	44	3	10	4	1	2	0	1	3	0	0	0	0
<b>Total</b>	<b>65</b>	<b>73</b>	<b>46</b>	<b>111</b>	<b>54</b>	<b>61</b>	<b>46</b>	<b>33</b>	<b>32</b>	<b>30</b>	<b>25</b>	<b>40</b>	<b>50</b>	<b>44</b>	<b>52</b>	<b>38</b>

Source: ESR(2013)

During the period 1997 to 2012, the highest annual notification of malaria happened in 2000 with 111 cases. There was a decline in cases number to 54 in 2001, followed by a slight rise in 2002 to 61 cases. It kept falling to 25 cases in 2007 which became the lowest notification in this 15 years period. The annual notifications started rising after 2007, but declined in 2012 (Table 1, Figure 1).

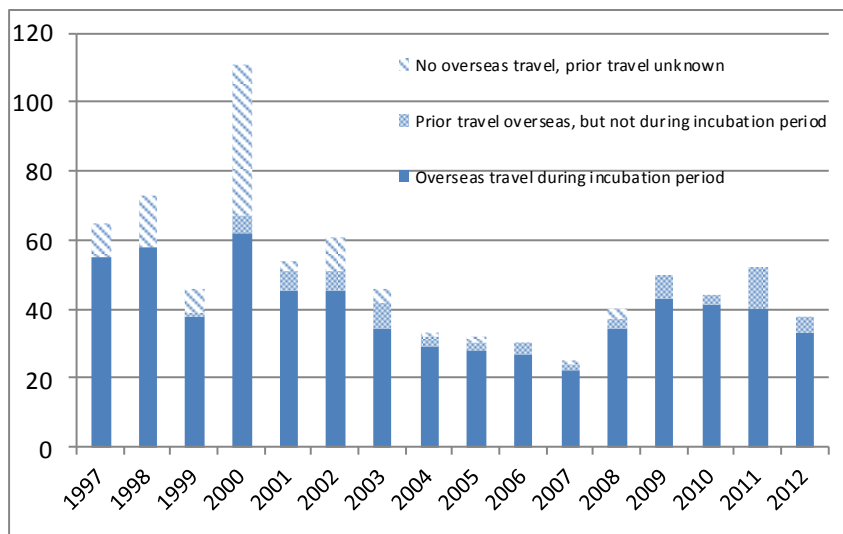
Among all the notifications of malaria from 1997 to 2012, around 87% of those cases had a history of overseas travel and 90% of the overseas travel occurred during incubation period. Only 12% of the cases had no prior overseas travel history or travel history was unknown (Table 1). This indicates the majority of cases of malaria notified in New Zealand are most likely to be infected outside the country.

However, in the year 2000, there were 44 cases of malaria (accounting for almost 40% of the total annual notifications) notified without overseas travel or prior travel history was unknown (Figure 1). This may be due to the relative long incubation period of the disease: 9-40 days (Ministry of Health, 2012), which makes it difficult to track the exposure of the pathogens.

**REFERENCES**

- Ministry of Health. (2012). Communicable Disease Control Manual 2012. . Wellington: Ministry of Health.
- The Institute of Environmental Science and Research Ltd (ESR). 2013. Direct communication with statistics department.

FIGURE 1: NUMBER OF NOTIFICATIONS OF MALARIA IN NEW ZEALAND, BY EXPOSURE RISK FACTORS AND YEAR, 1997-2012



Source: ESR(2013)

**HIGHLIGHTS:**

- From 1997 to 2012, the highest annual notification of malaria happened in 2000 with 111 cases, while the lowest in 2007 with 25 cases.
- 87% of notified malaria cases had a history of overseas travel and 90% of the travel occurred during incubation period.
- Due to the relative long incubation period of malaria, the exposure of pathogens may be hard to track.

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