

Annual Epidemiological Report

August 2018

Malaria in Ireland, 2017

Key Facts

2017:

- 77 cases of malaria were notified in 2017
- 1.6 per 100,000 population crude incidence rate (CIR) in 2017
- Slight decrease compared to 88 cases (CIR 1.8) notified in 2016
- Visiting family of origin remains most commonly reported reason for travel
- Nigeria remains most commonly reported country of infection

Background

Malaria is a common and serious tropical disease caused by a type of parasite (protozoan) transmitted to humans by biting mosquitoes. There are four kinds of malaria that can infect humans: *Plasmodium falciparum*, *P. vivax*, *P. ovale*, and *P. malariae*. *P. falciparum* is the most severe form of malaria. *P. falciparum* and *P. vivax* are the most commonly encountered.

Malaria is a public health problem in more than 100 countries, with over 2 billion people living in malarious parts of the world. More than 90% of cases occur in tropical Africa, but it is also found in the Indian subcontinent, Southeast Asia, Central and South America, Hispaniola (Haiti and the Dominican Republic), the Middle East, and Oceania. For travellers and tourists, sub-Saharan Africa probably represents the area of greatest risk of malaria.

Methods

Malaria is a notifiable disease in Ireland under the Infectious Disease Regulations and cases should be notified to the Medical Officer of Health. The [case definition](#) is outlined on the HPSC website.

Notifications are reported using the Computerised Infectious Disease Reporting system ([CIDR](#)) which is described [here](#).

Further information on the process of reporting notifiable infectious diseases is available [here](#).

All crude incidence rates were calculated using the 2016 Census unless otherwise specified.

Epidemiology

In 2017, 77 malaria cases were notified in Ireland, corresponding to a crude incidence rate (CIR) of 1.6 and a decrease of 12.5% in comparison to 88 cases (CIR 1.8) reported in 2016 (Figure 1). Among European Union (EU) member states reporting malaria data to the European Centre for Disease Prevention and Control, Ireland had the fifth highest incidence rate for imported malaria in 2016 (the latest year for which comparative data are available); only the United Kingdom and Portugal had higher reported incidence rates.

In common with the rest of the EU, males predominated with a male:female ratio of 1.9:1.0. The highest numbers of cases were aged between 35 and 54 years. The number of paediatric cases also decreased during 2017, with nine cases reported compared to 14 cases reported during 2016 (Figure 1). Five paediatric cases did not have details on endemic areas visited, reason for travel or on malarial prophylaxis taken. For the four paediatric cases with such details reported, all reported visiting family in their country of origin as their reason for travel to countries in sub-Saharan Africa. Of these four paediatric cases, none reported taking malaria prophylaxis.

Among all age groups, the category of traveller most affected in Ireland continued to be African immigrants and their families who were exposed while returning to visit family in their country of origin. This almost certainly reflects the greater frequency with which this group travels to malarious areas, but also reflects Ireland's importance as a destination for those emigrating from English speaking West Africa. Of the 20 cases (26.0%) in 2017 where reason for travel was reported for, 70.0% cited visiting family in their country of origin, all of whom travelled to Africa. Other reasons cited for travel this year were new entrant to Ireland (n=2), business/professional travel (n=1), Irish citizen living abroad (n=1), other reason for travel (n=1) and foreign visitor ill in Ireland (n=1).

Probable country of infection was reported for 24 cases (31.2%). Nigeria remained the country most frequently visited, accounting for 62.5% of cases where country of infection was reported. The remaining six cases were exposed in seven other countries within Africa, two cases acquired their infection in Pakistan and one was associated with travel to India. Where reason for travel was known, all cases who reported travel to Nigeria were visiting family in country of origin (11/15).

Plasmodium falciparum accounted for 89.6% of infections in 2017, reflecting the dominance of exposure in Africa as the source of the majority of notifications. Two cases of *P. ovale* and two cases of *P. vivax* were also reported. The remaining four cases did not have *Plasmodium* species specified.

Figure 1: Annual number of malaria notifications in Ireland by age group and year

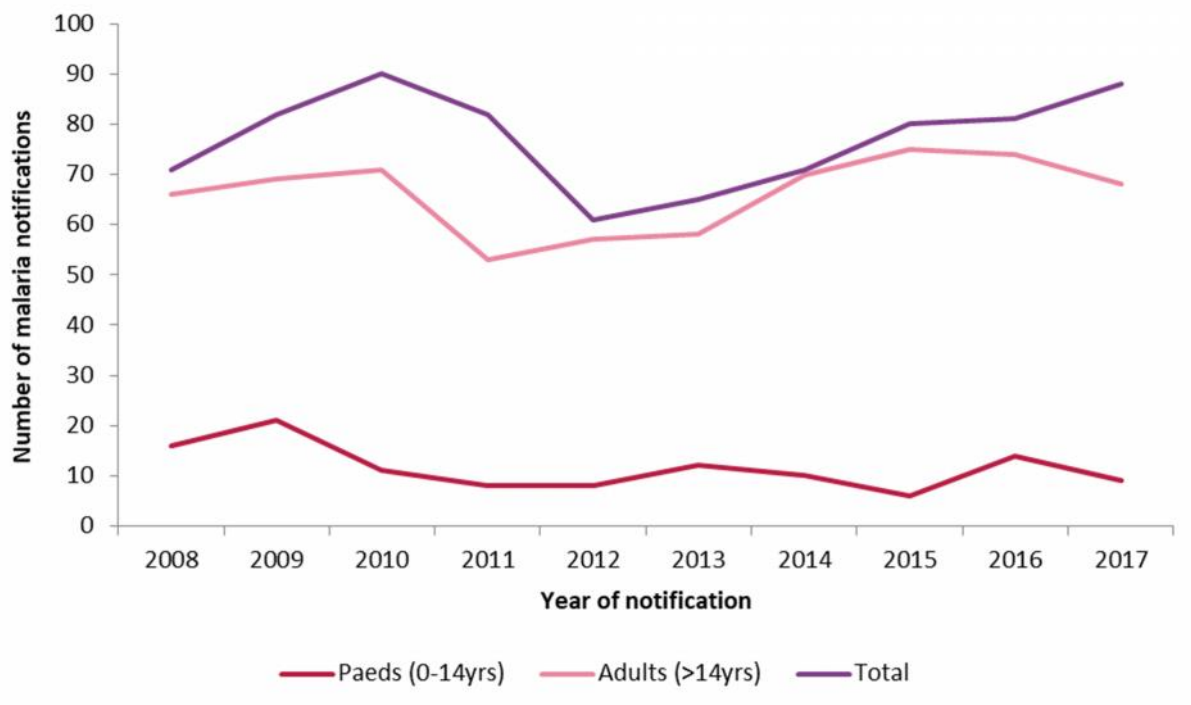
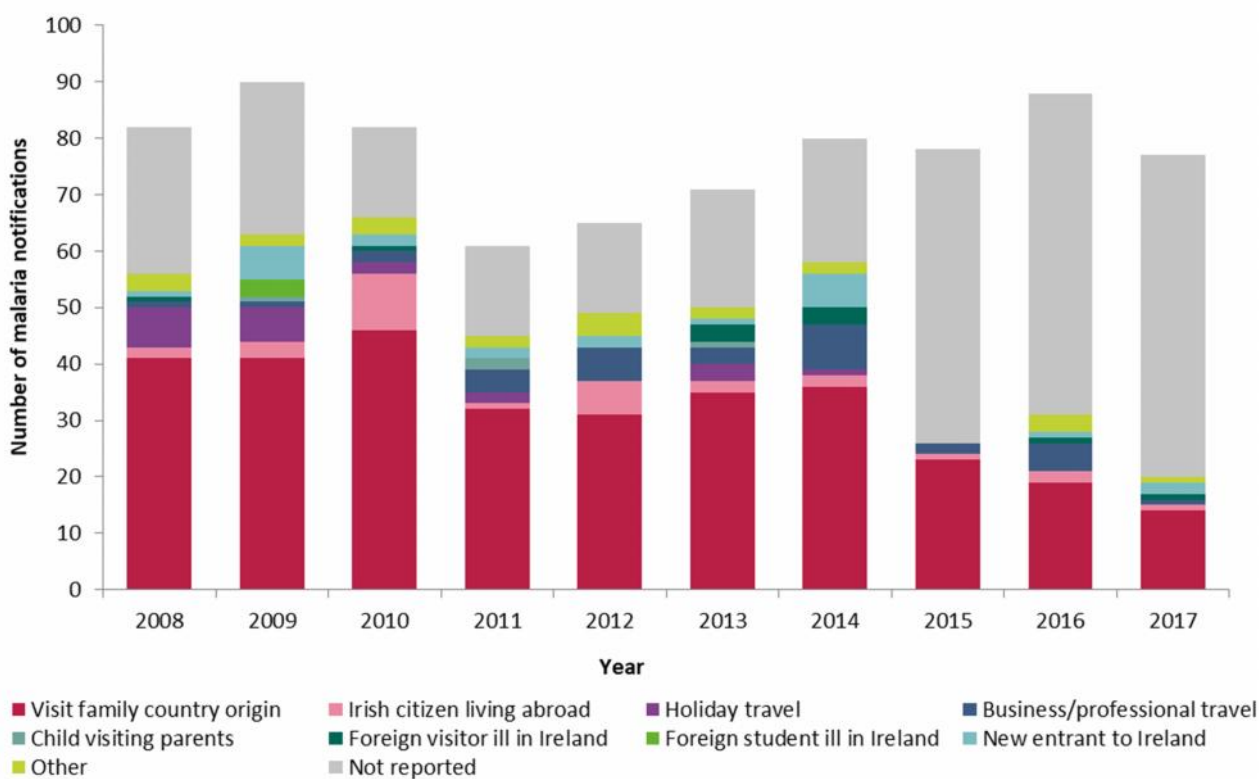


Figure 2: Annual number of notifications of malaria in Ireland by reason for travel and year



Public health implications

HPSC resources for health professionals include a poster which can be downloaded from the HPSC website for display in GP surgeries, maternity hospitals, paediatric hospitals and emergency departments, advising immigrant families travelling to Africa to consult their doctor about malaria before travelling. A leaflet for intending travellers, available in English and French, highlights the value of antimalarial prophylaxis and protection against mosquito bites. The poster and leaflet are available [here](#).

Further information available on HPSC website

<http://www.hpsc.ie/a-z/vectorborne/malaria/factsheet/>

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