



Vectorborne Diseases in Ireland, 2022

January 2024



Sincere thanks are extended to all those who participated in the collection of the data used in this report. This includes the notifying physicians, staff in public health departments, epidemiologists, surveillance staff, microbiologists, nurses, laboratory staff and administrative staff.

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Malaria in Ireland





Malaria in Ireland

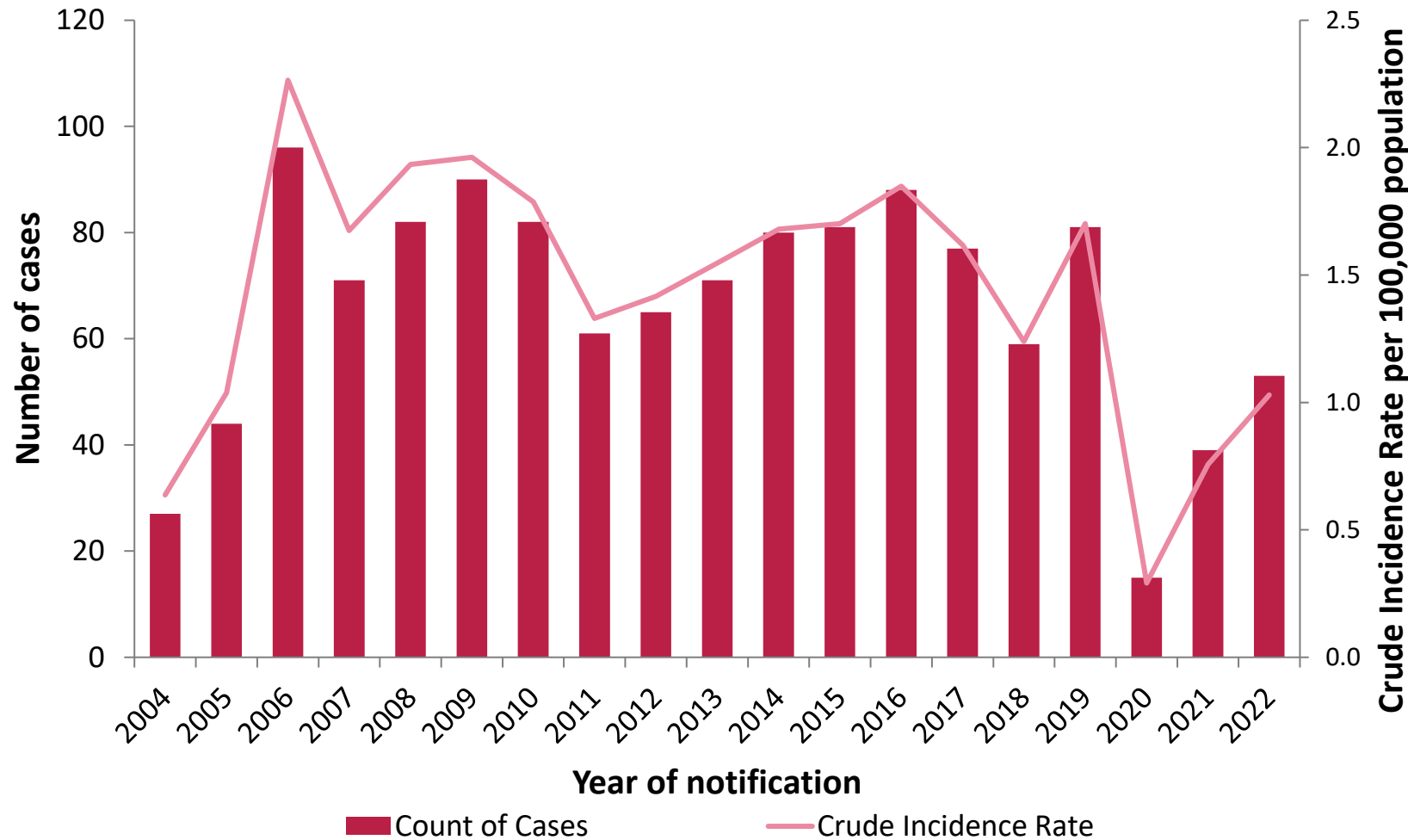


Malaria is a common and serious tropical disease caused by a type of parasite (protozoan) transmitted to humans by biting mosquitoes. There are four species of malarial parasite that commonly infect humans (*Plasmodium falciparum*, *P. vivax*, *P. ovale*, *P. malaria*). A further two less common and primarily zoonotic species (*P. knowlesi* and *P. cynomolgi*) are also capable of infecting humans. *P. falciparum* causes the most severe form of malaria. *P. falciparum* and *P. vivax* are the most commonly encountered.

Malaria is a major 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 malaria also occurs 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 represents the area of greatest risk of malaria.

For more information on risk factors and precautions please see the [Malaria Fact Sheet](#) on the HPSC website.

Malaria in Ireland: trends, 2004-2022



Case numbers decreased during the pandemic due to decreased travel but increased in 2022 as international travel resumed

There were 53 cases of malaria notified in Ireland in 2022, this is a 36% increase from 2021

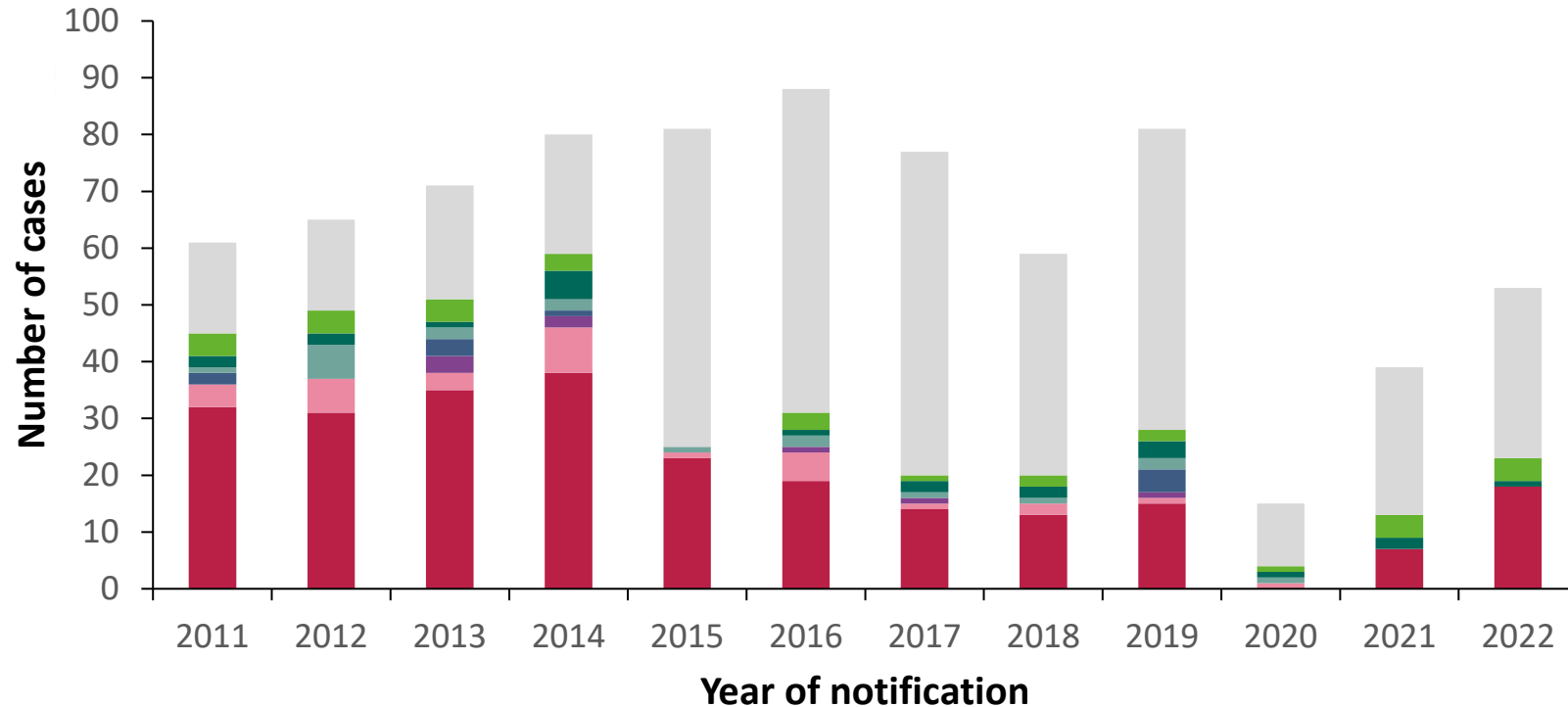


Malaria in Ireland, 2019 - 2022

Summary of notified malaria cases in Ireland from 2019 - 2022

	2019	2020	2021	2022
Total cases	81	15	39	53
Male cases	41	10	29	35
Female cases	38	5	10	18
Unknown	2	0	0	0
M:F Ratio	1.1	2.0	2.9	1.9
Crude Incidence Rate (per 100,000)	1.7	0.3	0.8	1.0
Median age (range)	37 (0-64)	39 (9-70)	42 (3-64)	45 (6-64)
Percent aged under 15	9.9%	6.7%	5.1%	9.4%
Hospitalised cases	25	6	20	23
Percent hospitalised	30.9%	40.0%	51.3%	43.4%

Malaria cases by reason for travel, 2011-2022



- Visit family in country of origin
- Business/Professional Travel
- Foreign visitor ill in Ireland
- Holiday travel
- Irish citizen living abroad
- New entrant to Ireland
- Other
- Not reported



- Where reason for travel to malarious region was reported, “Visiting family of origin” continues to be the most commonly reported reason.
- Nigeria was the most commonly reported country of infection in 2019-2022, comprising of 29%-55% of cases where country of infection was known.
- Data completeness for reason for travel and country of infection is low. Therefore, caution is advised when interpreting these data.



Dengue Fever in Ireland





Dengue Fever in Ireland



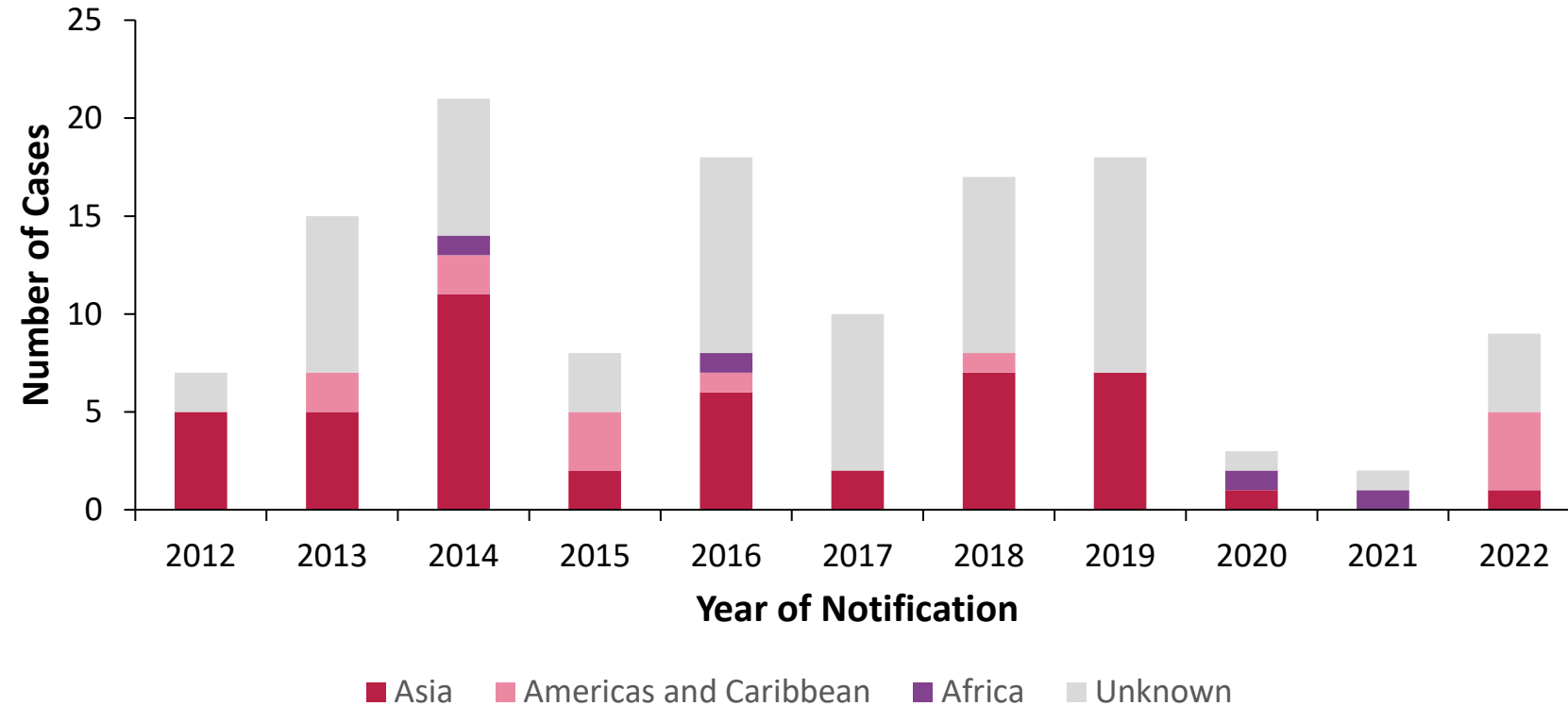
Dengue Fever (also known as break bone fever) is a severe, flu-like viral illness that affects infants, young children and adults, but rarely causes death. It is spread by the bite of an infected *Aedes* mosquito and is common throughout the tropics and subtropics.

With *Aedes* mosquitoes becoming established in mainland Europe, locally acquired cases of Dengue Fever have become more common with a transmission period lasting from June to November. Non-travel associated dengue cases have been reported in Europe from Italy, France, and Spain¹.

For more information on risk factors and precautions please see the [Dengue Fact Sheet](#) on the HPSC website.

1. ECDC Website, 2023, '*Autochthonous vectorial transmission of dengue virus in mainland EU/EEA, 2010-present*', accessed 22/12/2023, <https://www.ecdc.europa.eu/en/all-topics-z/dengue/surveillance-and-disease-data/autochthonous-transmission-dengue-virus-eueea>

Dengue Fever cases in Ireland by likely continent of infection, 2012-2022



- Notifications of Dengue Fever decreased during the pandemic due to travel restrictions, with an increase in 2022 due to a return to international travel.
- 2022 had a notable increase in Dengue Fever cases returning from the Americas and Caribbean, compared to most pre-pandemic years where most cases returned from Asia
- There have been no known cases associated with travel to Europe
- Data completeness related to countries of travel is low. Therefore, caution is advised when interpreting this data.

Other Vectorborne Diseases in Ireland, 2019-2022



Table 2. Notified cases of Other Vectorborne diseases in Ireland, 2019-2022

Disease Name	2019	2020	2021	2022
Chikungunya disease	1	0	0	0
Lyme disease	6	12	4	4
Zika virus infection	0	2	0	0
Total	7	14	4	4

- No cases of tularaemia, typhus, tick-borne encephalitis, West Nile fever, or yellow fever were notified in Ireland between 2019-2022



Summary of Vectorborne Diseases in Ireland



1. There has been an increase in notifications of diseases associated with international travel such as Malaria and Dengue Fever following a return to pre-pandemic levels of travel
2. There is now a risk of travel associated Dengue Fever cases from Europe, though as of the end of 2022 no such cases have been identified in Ireland
3. The best protection against vectorborne diseases is to protect yourself against their bites. Mosquitoes bite in order to feed on blood. Following the advice provided in the following link can markedly reduce your chances of being bitten by mosquitoes: [Protect yourself against mosquitoes - Health Protection Surveillance Centre \(hpsc.ie\)](#)
4. It is important to take precautions prior to travel. The Department of Foreign Affairs and Trade (DFA) provides guidance to travellers that is updated regularly. Please consult the DFA website and click on the relevant country. It is important to check this information prior to any trips, as the situation could change rapidly.

1. Data are based on statutory notifications and were extracted from the Computerised Infectious Disease Reporting ([CIDR](#)) system on the indicated dates.
2. Data are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from figures published at other times.
3. Population data were taken from the Central Statistics Office. In general, a 5 year rule of thumb was used, i.e. year of census and two years before and after. In situations where the census was cancelled/delayed (e.g. 2021), population estimates for the year(s) involved were reviewed, and the census with results most closely aligning to the estimates was applied.