



Public Health
England

Dengue fever in England, Wales and Northern Ireland: 2013

Withdrawn September 2023

About Public Health England

Public Health England's mission is to protect and improve the nation's health and to address inequalities through working with national and local government, the NHS, industry and the voluntary and community sector. PHE is an operationally autonomous executive agency of the Department of Health.

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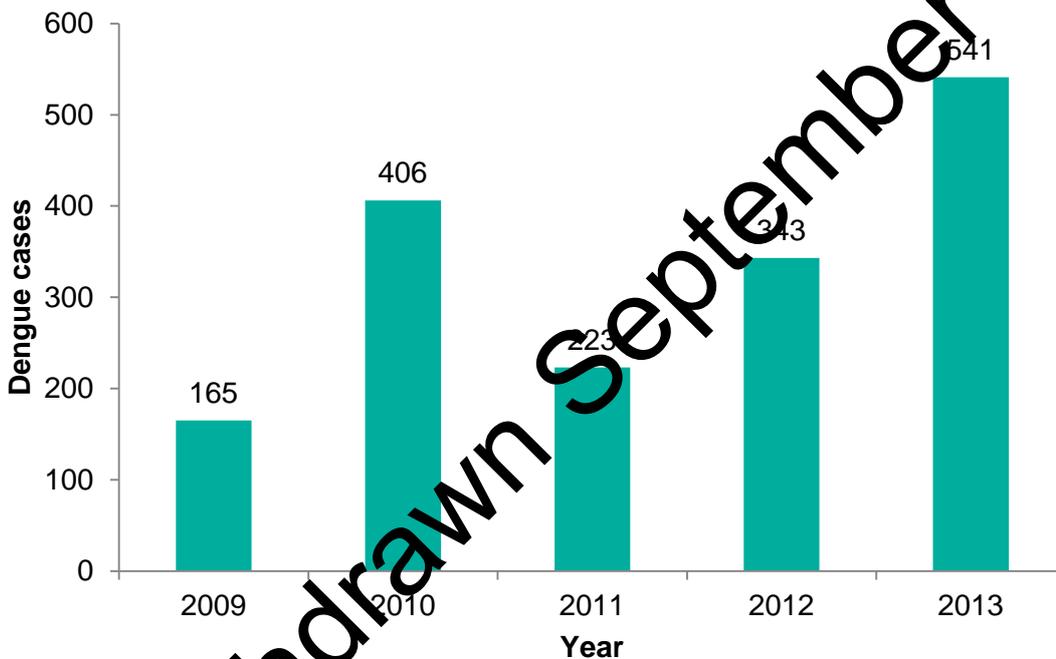
General trend

Dengue fever does not occur in the United Kingdom; it is a travel-associated infection. The majority of cases that are reported in the UK are acquired in Asia, the Americas and the Caribbean.

In England, Wales and Northern Ireland (EWNI), there were 541 individual cases of confirmed and (318, 59%) probable (223, 41%) dengue fever reported by the PHE Rare and Imported Pathogens Laboratory (RIPL) in 2013; 58% higher than in 2012. Between 2009 and 2013, there has been an overall average annual increase of 53% [Figure 1].

No haemorrhagic forms of the disease (severe dengue) were known to be reported in 2013.

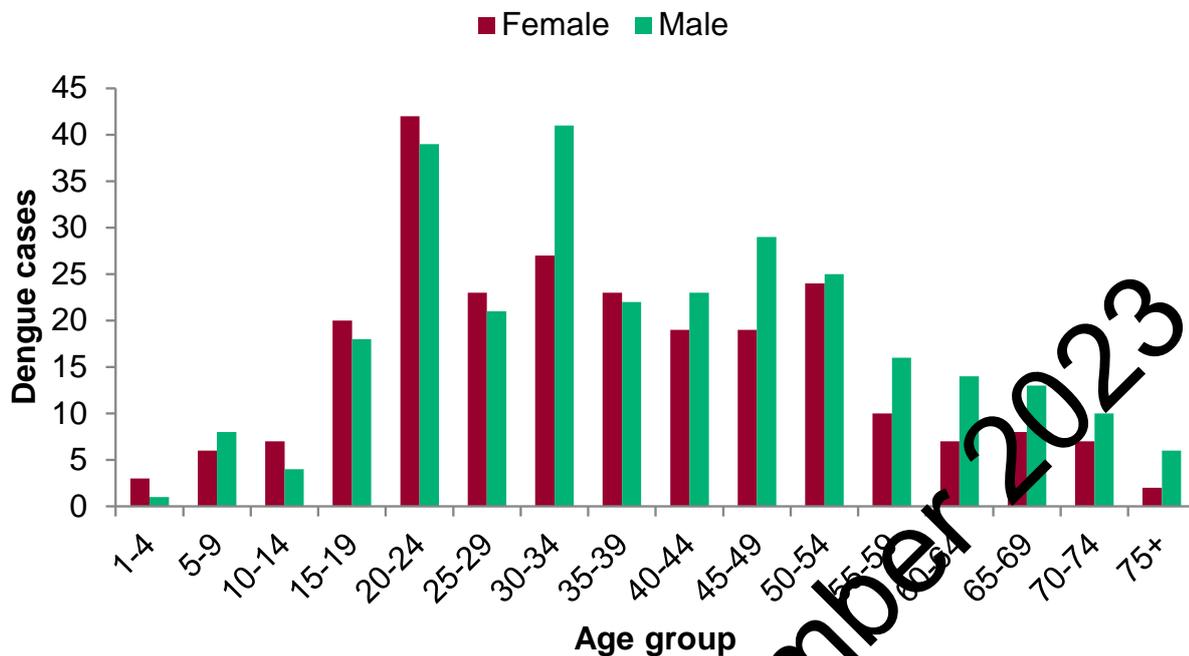
Figure 1. Laboratory confirmed cases of dengue fever, England, Wales and Northern Ireland: 2009 – 2013



Age and sex

In 2013, age and sex was known for 537 (99%) dengue cases in EWNI [Figure 2], of which 54% were male. The median age for all cases was 35.5 years [range 3-86 years], although this differed by gender (37.5 years for males and 34 years for females). The majority of cases were in adults but those aged 16 years and under represented 7% of all cases in 2013, which is slightly increased compared to the rolling average between 2009 and 2013 (4%).

Figure 2. Laboratory confirmed cases of dengue fever by age and sex, England, Wales and Northern Ireland: 2013 (N=537)



Geographical distribution

Table 1. Cases of dengue fever by geographical distribution, England, Wales and Northern Ireland: 2012 and 2013

Geographic area	2013	2012	% change between 2012 and 2013
London PHEC	206	137	50%
Yorkshire and Humber PHEC	41	23	78%
Sussex, Surrey and Kent PHEC	41	32	28%
Avon, Gloucestershire and Wiltshire PHEC	38	15	153%
Thames Valley PHEC	30	14	114%
West Midlands PHEC	27	25	8%
Cheshire and Merseyside PHEC	22	7	214%
Greater Manchester PHEC	20	11	82%
Anglia and Essex PHEC	20	17	18%
Wessex PHEC	18	8	125%
East Midlands PHEC	18	7	157%
South Midlands and Hertfordshire PHEC	16	9	78%
Devon, Cornwall and Somerset PHEC	15	8	88%
Wales	14	14	0%
Cumbria and Lancashire PHEC	6	4	50%
North East PHEC	5	10	-50%
Northern Ireland	4	2	100%
Total	541	343	58%

PHEC: PHE Centre

Residential postcode is not always available for dengue cases, therefore the geographical region of the cases are defined by the sending laboratory. London PHE Centre usually reports the highest proportion of cases (38% in 2013 and 40% in 2012). All but one region reported an increase in cases reported in 2013 compared to 2012 in line with the national trend [Table 1].

Travel history

Active surveillance of dengue fever is not conducted in the UK. Clinical and travel history details for cases are dependent upon what the diagnosing clinician writes on the laboratory request form when the sample is sent to RIPL. Often clinical details such as date of onset and symptoms, past vaccination status and travel history (such as country and dates of travel) that would aid laboratory staff to confirm the diagnosis of dengue fever (or indeed other infections), are missing. The data below should therefore be interpreted with caution, especially for travel history where more than one country has been given. It is recommended that those sending samples to RIPL adhere to the guidance about what information to include, as set out in the RIPL User Manual available on the [PHE website](#).

Of 541 cases reported in EWN, 456 (84%) had a country(ies) or region of travel stated; travel history completeness was slightly improved compared to 2012 (80%). Of these, 427 had travelled to a single country (22 stated world region only), 22 to two different countries, six to three countries and one to four countries. Figure 3 shows the regions of travel and Table 2 the top ten countries of travel for dengue in EWN in 2013.

Figure 3. Dengue fever cases by region of travel, England, Wales and Northern Ireland: 2013 (N=493)

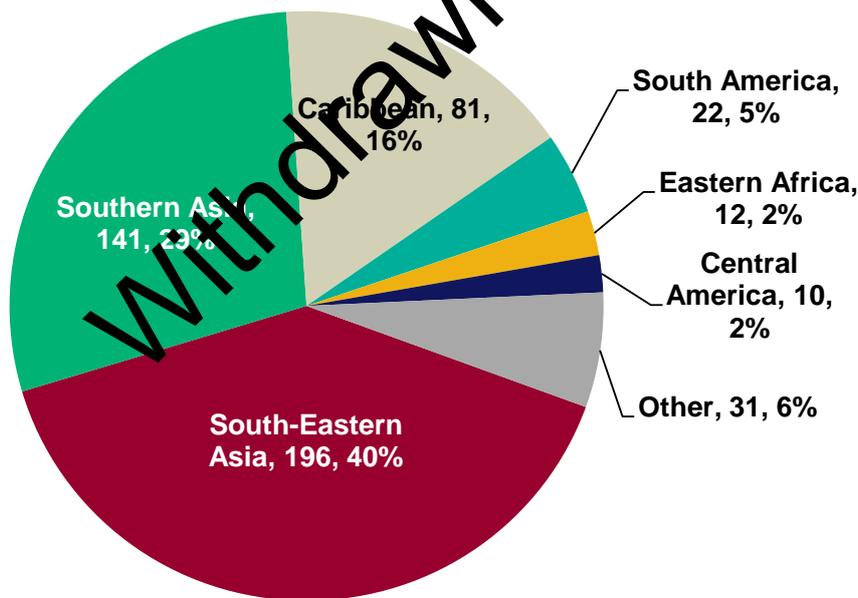


Table 2. Top ten countries of travel for dengue fever cases in England, Wales and Northern Ireland: 2013

Country of travel	2013	2012	% change between 2012 and 2013
Thailand	100	59	69%
India	81	75	8%
Barbados	51	1	5000%
Sri Lanka	35	15	133%
Philippines	19	10	90%
Indonesia	19	11	73%
Malaysia	16	7	129%
Cambodia	15	10	50%
Brazil	14	7	100%
Pakistan	13	1	1200%
Other	130	110	18%
Subtotal with travel history	493	306	61%
Not stated	85	67	27%
Total	578	373	55%

*Note that the totals in Figure 3 and Table 2 are higher than the total number of cases as some cases travelled to more than one country. All possible countries/regions of infection are included for analysis if no dates of travel or onset have been stated; in reality a case is likely to have acquired his/her infection in only one country.

In 2013, as in previous years, the majority of dengue fever cases reported in EWNI are associated with travel to South and South East Asia, with an increase of 38% (102 cases) and 80% (109 cases) respectively compared to 2012. Also of note is the increase in cases associated with travel to the Caribbean in 2013 (81 compared with 48 in 2012); this was predominantly cases acquired in Barbados, where indigenous cases doubled in 2013 compared to 2012 [1].

India and Thailand made up 37% of the total cases in EWNI that had known travel history in 2013, with numbers continuing to increase into 2013 after previous large increases in cases reported in 2012 compared to 2011 [2].

The continued increase in dengue fever reported in travellers in 2013 highlights again the need for all travellers to be aware of the risk of dengue fever when travelling to a dengue endemic area, especially in Asia and the Americas, and to take precautions to avoid mosquito bites particularly during the day around dawn and dusk. Mosquito bite avoidance advice is available on the [National Travel Health Network and Centre \(NaTHNaC\) website](#).

More information about dengue fever is also available on the [PHE website](#).

Data sources

Dengue infections for England, Wales and Northern Ireland comprise laboratory reports from the PHE Rare and Imported Pathogens Laboratory, Porton Down (using date received by the laboratory). Data cleaning and analysis were undertaken by the PHE Travel and Migrant Health Section, Colindale.

References

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