

PUBLIC HEALTH POST

Public Health for Primary Care in Wellington, Wairarapa and the Hutt Valley

Also available online at www.rph.org.nz

December 2015

SUB-REGIONAL DENGUE FEVER UPDATE

Dr. Peter Murray, Public Health Registrar, Regional Public Health



Dengue fever (DF) is a mosquito-borne viral infection that has spread widely around the globe over the past half century. Before 1970, only nine countries had experienced severe dengue epidemics. The disease is now endemic in more than 100 countries, <http://www.who.int/mediacentre/factsheets/fs117/en/>, including Northern Australia, the Pacific islands and South East Asia. The key vector for DF is the *Aedes* family of mosquitos, in particular *Aedes Aegypti*, a mosquito that is not present in New Zealand. Although New Zealand has two species of mosquitos that potentially could transmit Dengue Fever, they are poor vectors and are unlikely to support establishment of Dengue transmission. As a result, all of our cases are associated with overseas travel.

Once bitten by an infected mosquito, the incubation period for DF is usually 5-8 days (range 3-14). Typically, it presents non-specifically with fever, headache, myalgia, arthralgia and rash, and has a mild clinical course. Treatment of DF is supportive. However, a small proportion of people can develop serious manifestations – Severe Dengue Fever (also known as Dengue Hemorrhagic Fever (DHF) and Dengue Shock Syndrome (DSS)).

In New Zealand, DF is diagnosed when a patient has a clinically compatible illness, travel history to a high-risk area and a confirmatory laboratory result. DF is a notifiable disease, and notifications are usually made by laboratories, often after the patient's illness has abated. The purpose of this article is to provide an update on national and regional notifications of DF.

National Notifications

There has been a steady increase in national DF notifications over time (Figure 1). In 2014 there were 179 notifications (the most recorded), mainly in adults. Pacific peoples and Asian ethnicities had the highest notification rates. All cases were overseas during the incubation period, with the most common countries visited being Fiji, Indonesia and Thailand.

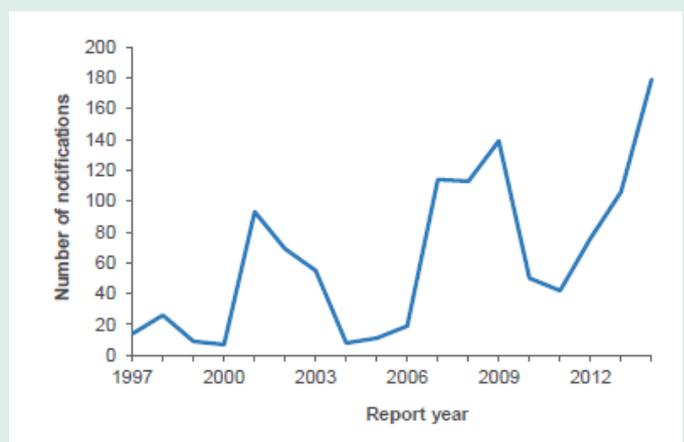


Figure 1. National notification rates for DF, 1997-2014.¹

Regional Public Health Notifications

DF notifications in the Wellington sub-region have also trended upwards with time (Figure 2).

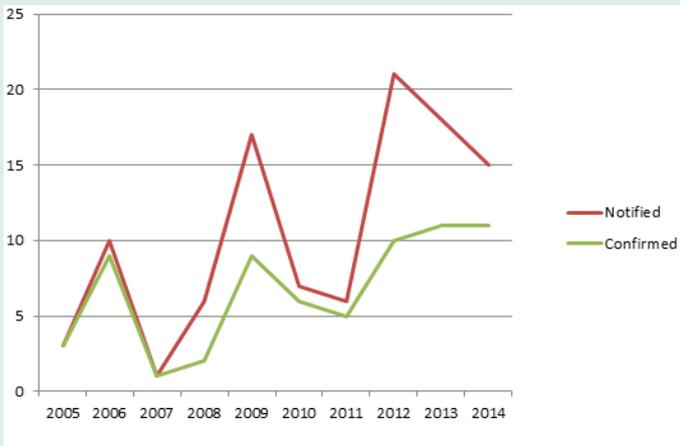


Figure 2. Numbers of total DF notifications and confirmed cases in the sub-region from 2005-2014.¹

From 2014 to October 2015, there have been 22 confirmed dengue notifications. The greatest number occurred in August 2014 (n=3) (Figure 3). There was no gender difference and adults aged 21-60 years accounted for 81% of all confirmed cases. The majority of notifications were also of NZ European ethnicity (Figure 4).

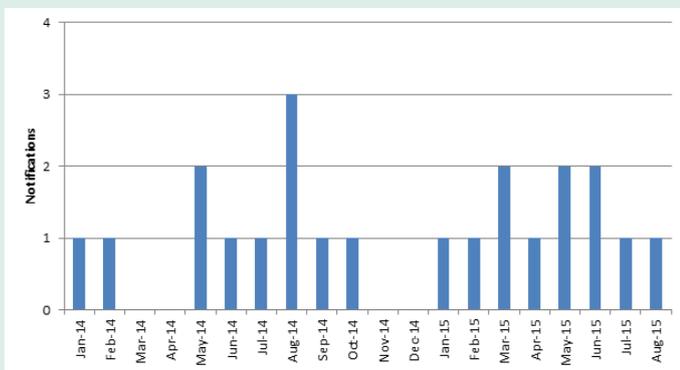


Figure 3. Confirmed sub-regional notifications by month from January 2014-present.¹

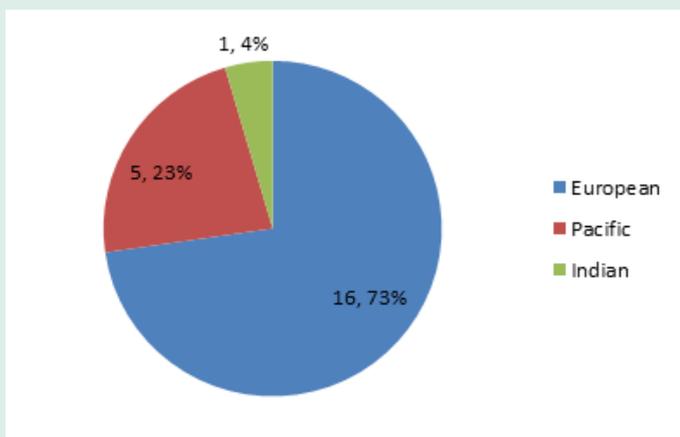


Figure 4. Ethnicity of confirmed sub-regional notifications from 2014-present.¹

All confirmed cases were overseas during the incubation period for DF, with 40% of people having returned from either Fiji or Indonesia (Figure 5).

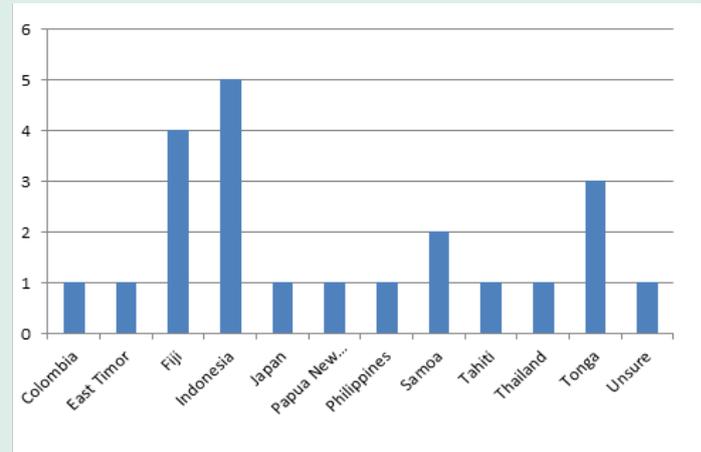


Figure 5. Likely country where DF contracted.¹

Public Health Messages

- DF remains a public health concern across the globe and is now endemic in popular holiday destinations in South East Asia and the Pacific.
- DF is usually a mild illness, but in a small number of cases can be severe.
- DF is a notifiable disease in NZ.
 - Notifications both nationally and in the sub-region are increasing.
- Notifications are important for assessing where DF was contracted (in particular to make sure that DF was not caught in NZ), and for international disease monitoring.
- Prospective travellers should be advised about strategies to prevent being bitten by mosquitos when overseas and to see their GP if they become unwell following a trip overseas.

Sources

1. ESR. Episurv database of notifiable conditions accessed 17/08/2015.
2. *Aedes aegypti* mosquito images: James Gathany, 2006. CDC/ Prof. Frank Hadley Collins, Dir., Cntr. for Global Health and Infectious Diseases, Univ. of Notre Dame. <http://phil.cdc.gov/phil/details.asp> Public Health Image Library (PHIL) images 9175, 9176, 9177, 9178.

WHAT ARE YOU REPORTING

THREE MONTHS OF NOTIFIABLE CASES IN THE HUTT VALLEY, WAIRARAPA AND WELLINGTON

Notes:

- The reported pertussis cases included a 27 day old baby whose mother had not been offered booster vaccination during the pregnancy. This and other similar cases prompted reminders to relevant practitioners to offer the fully funded booster vaccinations as according to Ministry of Health recommendations.
- The two listeriosis cases were both immune-compromised adults who had consumed high risk foods. There is useful information on food risks for people with immunocompromise available at <http://www.foodsmart.govt.nz/information-for/people-low-immunity/low-immunity.htm>.
- Three suspected measles cases and two suspected mumps cases were investigated, and determined not to meet the case definitions for these illnesses. One other suspected mumps case was not able to be confirmed or excluded (as testing was not organised) and was therefore recorded as a 'probable' case based on clinical features.
- Low numbers of tuberculosis cases were identified during the reporting period. Reported cases included those identified during immigration screening, or on investigation of pulmonary symptoms or lymph node enlargement.
- The case of leprosy had overseas exposure. Leprosy cases notified in New Zealand have lived overseas during their incubation period. These countries include some in the Western Pacific (e.g. Samoa, Kiribati, Fiji, Papua New Guinea) and in South and Southeast Asia (e.g. Philippines, India, Nepal).
- The case of rheumatic fever was a nine year old boy of Maori ethnicity who had a history of a sore throat four weeks previously.
- Investigation of the salmonella cases identified a mixture of overseas and local exposure to risk factors.
- Cryptosporidiosis cases were mainly found to be single isolated incidences, including those with contact with farm animals. Two cases linked to swimming pool use resulted in increased treatment regimes for the associated pools and reminders to pool users not to swim within two weeks of diarrhoeal illnesses.
- The case of hepatitis A was part of a small nationwide outbreak which has been linked to the consumption of overseas sourced frozen berries. The Wellington case was an early childhood centre teacher, with contact screening identifying no further cases. Potentially exposed children and adults were offered free hepatitis A vaccinations, subsequently given to 50 children and five adults.
- A campylobacter outbreak at a children's camp was investigated and found to be most likely due to the consumption of stream water away from the main camp facilities.
- Yersiniosis cases were investigated as part of a national increase, with no clear source found.
- During the reporting period influenza cases decreased, following the expected pattern for the time of year.
- Data is presented by territorial authority on the following page.

Sources

- ESR. Episurv database of notifiable conditions accessed 07/12/2015.
- Regional Public Health surveillance records.

Notifiable Condition	Number of confirmed cases (with additional 'probable' cases in brackets)			
	Hutt Valley	Capital and Coast	Wairarapa	Totals
Campylobacteriosis	53	76	20	149
Cryptosporidiosis	4	4	6	14
Dengue fever		2		2
Gastroenteritis	0(3)	1(15)	2	3(18)
Giardiasis	4	37	4	45
Hepatitis A	1			1
Hepatitis C	3			3
Invasive pneumococcal disease	6	9	2	17
Legionellosis		1	0(1)	1(1)
Leprosy		0(1)		0(1)
Listeriosis	1	1		2
Mumps		0(1)		0(1)
Paratyphoid fever		1	1	2
Pertussis	3(1)	7	1	11(1)
Rheumatic fever	1			1
Salmonellosis	4	12	2	18
Shigellosis	0(1)	2		2(1)
Tuberculosis disease		5(1)		5(1)
VTEC/STEC infection		2		2
Yersiniosis	13	28		41
Totals	93(5)	118(18)	38(1)	319(24)

Table 1. Notifiable cases by District Health Board in the Hutt Valley, Wairarapa and Wellington 01/09/2015 - 30/11/2015.

Regional Public Health Notifications

1st September 2015 to 30th November 2015

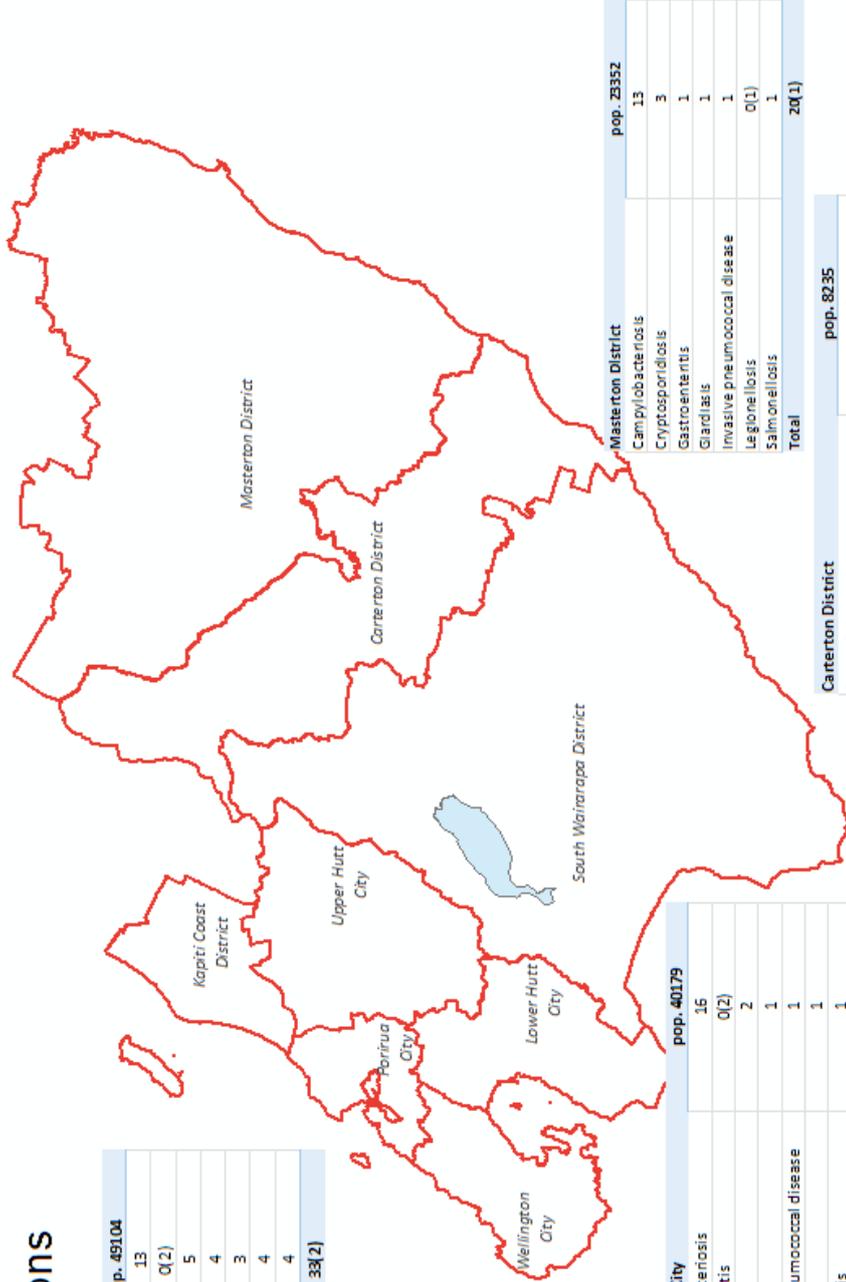
Kapiti Coast District	pop. 49104
Campylobacteriosis	13
Gastroenteritis	0(2)
Giardiasis	5
Invasive pneumococcal disease	4
Pertussis	3
Salmonellosis	4
Yersiniosis	4
Total	38(2)

Porirua City	pop. 51717
Campylobacteriosis	11
Gastroenteritis	0(1)
Giardiasis	5
Invasive pneumococcal disease	2
Legionellosis	1
Leprosy	0(1)
Mumps	0(1)
Paratyphoid fever	1
Tuberculosis disease	1
VTEC/STEC infection	1
Yersiniosis	5
Total	27(3)

Wellington City	pop. 190959
Campylobacteriosis	52
Cryptosporidiosis	4
Dengue fever	2
Gastroenteritis	1(12)
Giardiasis	27
Invasive pneumococcal disease	3
Listeriosis	1
Pertussis	4
Salmonellosis	8
Shigellosis	2
Tuberculosis disease	4(1)
VTEC/STEC infection	1
Yersiniosis	19
Total	128(13)

Upper Hutt City	pop. 40179
Campylobacteriosis	16
Gastroenteritis	0(2)
Giardiasis	2
Hepatitis C	1
Invasive pneumococcal disease	1
Listeriosis	1
Salmonellosis	1
Yersiniosis	3
Total	25(2)

Lower Hutt City	pop. 98238
Campylobacteriosis	37
Cryptosporidiosis	4
Gastroenteritis	0(1)
Giardiasis	2
Hepatitis A	1
Hepatitis C	2
Invasive pneumococcal disease	5
Pertussis	3(1)
Rheumatic fever	1
Salmonellosis	3
Shigellosis	0(1)
Yersiniosis	10
Total	68(3)



Carterton District	pop. 8235
Campylobacteriosis	4
Cryptosporidiosis	3
Giardiasis	1
Paratyphoid fever	1
Pertussis	1
Total	10

South Wairarapa District	pop. 9528
Campylobacteriosis	3
Gastroenteritis	1
Giardiasis	2
Invasive pneumococcal disease	1
Salmonellosis	1
Total	8

Masterton District	pop. 23352
Campylobacteriosis	13
Cryptosporidiosis	3
Gastroenteritis	1
Giardiasis	1
Invasive pneumococcal disease	1
Legionellosis	0(1)
Salmonellosis	1
Total	20(1)

Notes:

1. Population data from Statistics New Zealand 2013 Census 'usually resident population'.
2. Tables present the number of 'confirmed cases', with additional 'probable cases' in brackets.
3. Notification data from EpiSurv databases. E SR, 7/12/2015.

Figure 1. Notifiable cases in the Hutt Valley, Wairarapa and Wellington 01/09/2015 – 30/11/2015, tabulated by territorial authority.

COMMUNICATION: REGIONAL PUBLIC HEALTH REQUESTS EMAIL ADDRESSES AND CELL PHONE NUMBERS FOR NOTIFIED CASES

Regional Public Health is using electronic communication methods more frequently to contact cases who have been notified with conditions requiring public health follow up. Text messaging cases to find out when people are available to talk has been a runaway success, greatly facilitating contact. Fast, effective communication allows us to identify links between cases quickly and efficiently, giving the best possible opportunity to reduce the spread of illness.

The next process that we are working on is the development of an electronic questionnaire for patients who are notified with common enteric illnesses. The first, for campylobacter, is ready to go now. Patients will be sent a link to the questionnaire asking about their recent contacts, food consumption and other risk factors for disease.

In order that we can use electronic communication effectively, Regional Public Health needs cell phone numbers and wherever possible email addresses for notified cases. We are grateful for the co-operation of primary care practices, and are happy to discuss this request further if required.

To set up expectations for patients, please advise cases, if the opportunity arises, that Regional Public Health may contact them by text message or email.

Sources

1. Telephone image: Alexandre Dulaunov. Wikimedia Commons. Available at: https://upload.wikimedia.org/wikipedia/commons/8/80/Old_Ericsson_Phone.jpg



PUBLIC HEALTH ALERTS

Regional Public Health communicates public health alerts to primary care practices by fax and by email. These communications often contain information that needs to be urgently taken on board by general practitioners and primary care nurses.

Please contact Regional Public Health on (04) 570 9002 if you have not been receiving alerts, or to check and confirm that we have your correct details.

If you are not yet receiving alerts by email, and would like to, then you can provide your email address via phoning the number above.

Ordering pamphlets and posters:

To order any Ministry of Health resources, please contact the Health Information Centre on (04) 570 9691 or email laurina.francis@huttvalleydhb.org.nz

For enquiries regarding the Public Health Post, please contact Dr Jonathan Kennedy, medical officer, Regional Public Health, by email jonathan.kennedy@huttvalleydhb.org.nz or by phone (04) 570 9002. Alternatively contact one of the regional medical officers of health: **Dr Jill McKenzie, Dr Craig Thornley, Dr Annette Nesdale and Dr Stephen Palmer.**

SAFE Holiday TIPS



SPEND TIME WITH YOUR CHILDREN AND LOVED ONES

Over the holidays take time to spend time with your children and loved ones. Talk to them, find out what is happening in their life, play games together, go for walks, dance to music, have a technology-free day. It's the season to have fun and make memories together.

CELEBRATE THE HOLIDAY SEASON WISELY

Celebrate the season wisely and if you are going to drink alcohol, do so responsibly. Research indicates that driving ability is affected after consuming any amount of alcohol. If you drink, then find an alternate way to get home. www.alcohol.org.nz

SMOKEFREE LIVING

Have you been thinking about a New Year's resolution?

Quitting smoking is one of the best things you can do for your health – and that of your family or friends. If you or someone you know would like to begin the journey to quit smoking, call the Quitline on **0800 778 778** or **text QUIT to 3111**.

FOOD SAFETY

Enjoy BBQ's with family and friends.

Remember to always wash your hands: before handling any food, after touching raw meat and poultry, after touching pets, or after going to the toilet. Cook meat thoroughly and keep salads covered and cool. Cover any leftovers and put them in the fridge within an hour of cooling down so they can be eaten the next day. If you, or anyone in your family is unwell with a tummy bug (vomiting and diarrhoea), stay at home while sick. Don't be tempted to join in the Christmas festivities.

clean  **cook**  **chill** 

SUN SAFETY TIME

It's easy to stay safe in the sun. Slip into a shirt and into the shade, slop on plenty of at least SFP30 sunscreen, slap on a broad-brimmed hat and wrap on a pair of sunglasses. www.sunsmart.org.nz. Keep an eye out for the Sun Protection Alert which tells you when you need to protect your skin.

SUN PROTECTION ALERT

9:50 AM – 4:20 PM

PROTECTION REQUIRED

Even on cloudy days

Data provided by NIWA

HEALTHY SKIN

The warmer weather brings out the biting insects. You can protect yourself and your family from insect bites by looking in your garden and removing any puddles or containers that have water in them. Insects love to breed in wet areas.

Use insect repellent and wear clothes that cover areas insects like to bite, like the legs and ankles.

If you do get an insect bite, keep it clean and cover with a plaster. Keep fingernails short to stop scratching and wash and dry hands well. See your doctor or nurse if your sore is not getting better.

SAFE SWIMMING

If we have had heavy rain, stay away from rivers and beaches for 48 hours. Bugs and chemicals get washed into the water and going swimming can make your eyes sore, give you sores on your skin or upset your tummy. See www.gw.govt.nz/summer-check for information on safe swimming spots.

Keep an eye on children. Watch them at all times around water, whether you are at the beach, river, swimming pool or enjoying a backyard pool.

HEALTHLINE

If you or a member of your family becomes unwell over the holidays and you are out of the area, or unsure if your local doctor is available, call Healthline on **0800 611 116** for free advice from a registered nurse. Healthline can help you 24 hours a day, 7 days per week.

