

# PUBLIC HEALTH POST

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

Also available online at [www.rph.org.nz](http://www.rph.org.nz) Issue 34 - September 2018

## JOINT PHO-RPH SUBMISSIONS ON DIABETES PREVENTION

Emma Church, Public Health Medicine registrar, Dougal Thorburn, General Practitioner

In August 2017, Regional Public Health (RPH) convened a forum with regional Primary Health Organisations (PHOs) to identify and develop joint actions for primary care and public health to improve population health and equity. One of the priority areas identified was diabetes prevention, with focus on developing joint submissions on territorial local authority (TLA or Council) long-term plans.

Submissions were prepared by RPH with input by PHOs. Oral submissions were made by general practitioners (GPs) from relevant PHOs and were supported by RPH staff. This article provides a summary of the key points made in the written submissions; and highlights the benefits of primary care engagement in public health action.

### Why focus on diabetes?

Diabetes prevalence is high, and disproportionately affects some communities and ethnic groups including Pasifika, Māori and low-income communities. While the onset of diabetes can be prevented or delayed by lifestyle changes<sup>i,ii</sup> and reducing obesity,<sup>iii</sup> the ability to achieve these changes

is strongly affected by determinants that lie outside the health sector. For example, there is evidence that:

- Higher deprivation neighbourhoods are more likely to have a greater number of fast food outlets and less access to healthy foods.<sup>iv</sup> Neighbourhood density of fast-food outlets and a lack of access to healthy foods have been found to be associated with higher rates of type 2 diabetes and obesity.<sup>v</sup>
- In New Zealand, the most deprived schools have three times the number of fast-food and convenience stores within 800 metres compared with the least deprived schools.<sup>vi</sup>
- Lack of green space and lower rates of walkability measures are associated with higher rates of type 2 diabetes and obesity.<sup>vii,viii</sup>
- Lack of access to neighbourhood destinations and street connectivity have been found to be associated with high body mass index (BMI) in New Zealand.<sup>ix</sup>

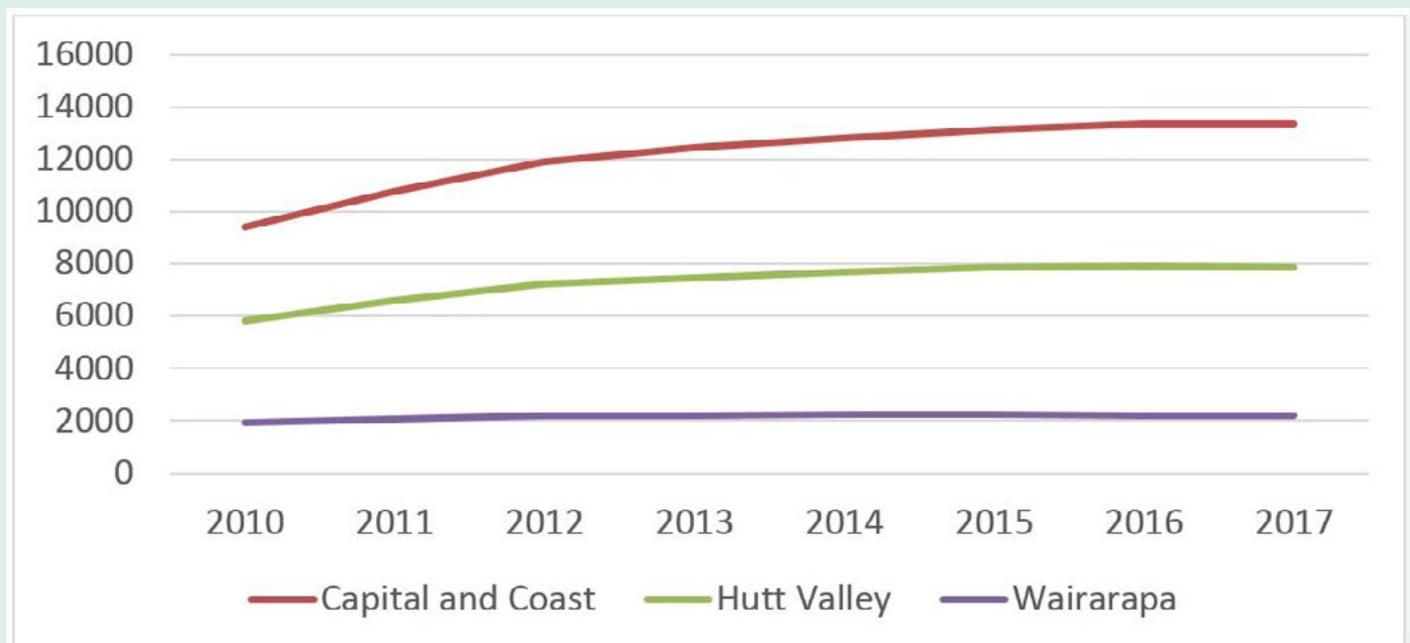


Figure 1. Number of people with diabetes, by DHB residence, 2010-2017  
Source: Virtual Diabetes Register data on MoH web page

The PHO-RPH shared submissions were focused on addressing determinants of diabetes that lie within the domain of Councils, as well as highlighting the importance of diabetes in respective Councils' communities.

### How is diabetes distributed in the region?

The submissions included an analysis showing the prevalence of diabetes, using data from the Virtual Diabetes Register (VDR).<sup>x</sup> Since 2010, the number of people on the VDR for the three District Health Boards (DHBs) in our region has been increasing. While there is some encouraging evidence that this increasing trend may be leveling off (Figure 1), there is still much work to be done.

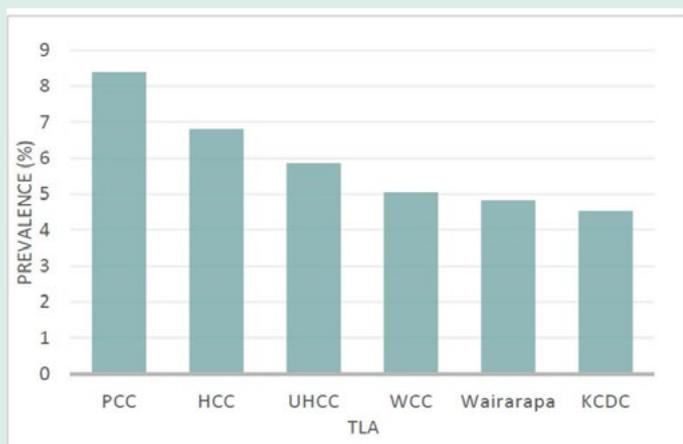


Figure 2. Age adjusted prevalence of diabetes in adults (over 25 years old) for Porirua City Council (PCC), Hutt City Council (HCC), Upper Hutt City Council (UHCC), Wellington City Council (WCC), the Wairarapa Councils, and Kapiti Coast District Council (KCDC)

Figure 2 shows the age-adjusted prevalence of diabetes in adults aged over 25 years, showing the wide variation between TLAs. There is also wide variation within TLAs as shown by maps produced for the submissions. Figure 3 shows the prevalence map for Hutt City Council and other maps can be found on the RPH website: <http://www.rph.org.nz/resources/submissions/>

Diabetes rates showed marked variation by ethnicity and in some areas, almost one-quarter of Pasifika adults were found to have diabetes. The respective age-adjusted prevalence, by ethnicity, for adults  $\geq 25$  years old for Wellington and Porirua City Council areas were: 19% and 23% for Pasifika; 8% and 12% for Māori; and 5% and 6% for Other Ethnic Groups. In the oral submissions, using local health data to highlight these marked geographical and ethnic inequalities in the prevalence of diabetes provided meaningful information for local Councillors, and enabled valuable discussions on what each Council can do to enhance health equity and wellbeing in our shared communities.

### What can Councils do?

The PHO-RPH submissions stressed that Councils have the opportunity to address diabetes through a range of actions:

- **Improve access to affordable healthy food and beverage choices by:**

- Implementing healthy food and beverage policies in Council-owned facilities.
- Increasing access in the community to fresh produce - shown to increase the average fruit and vegetable intake;<sup>xi</sup> including farmers' markets that have been shown to improve health and economic equity in more deprived neighbourhoods.<sup>xii</sup>
- Installing water fountains in parks and sports grounds of high use.

- **Increase nutrition literacy and cooking skills** by allowing community access to commercial kitchens in any new Council facilities. Since low nutrition literacy is associated with poorer health outcomes,<sup>xiii</sup> cooking and nutrition literacy is an opportunity to empower the community to make informed choices about their nutrition.
- **Promote physical activity and public transport** by encouraging Councils to prioritise interventions in the urban environment that support physical activity.<sup>xiv,xv</sup> Evidence shows that people are more likely to walk when they have access to green space and live close to schools and shops;<sup>xvi</sup> children are more likely to use active or public transport to get to school when their neighbourhoods have walkways and traffic control measures.<sup>xvii</sup>



Figure 3. Prevalence of diabetes (all ages) in Lower Hutt by Census Area Unit (CAU)

- **Prioritise the needs of children and young people,** by working with Councils to improve walking routes to schools; the food environment in and around schools; and the quality of recreational facilities for low-income communities.

### Strengths of RPH-PHO shared submission

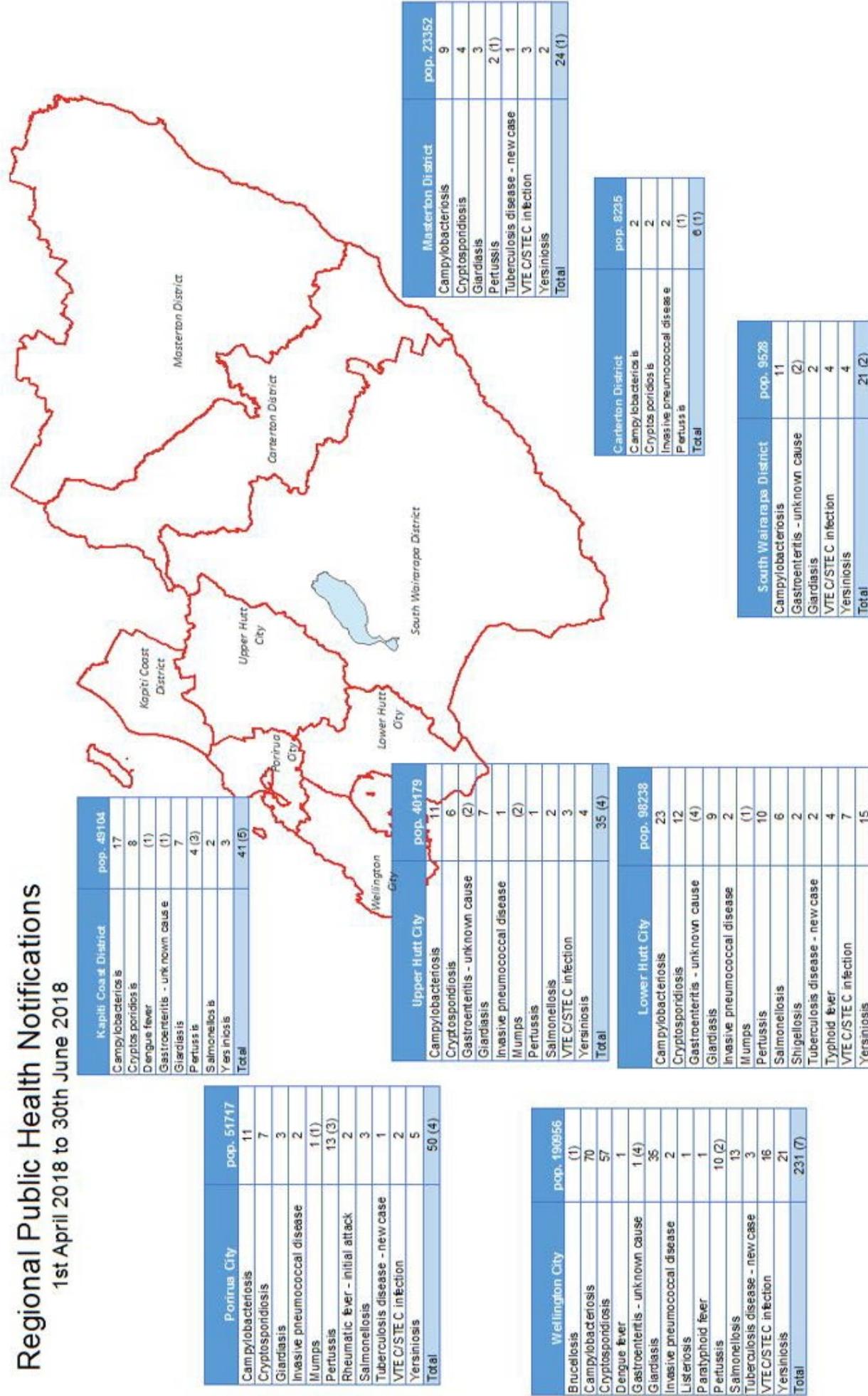
Given the social and environmental determinants of diabetes, the health sector has a critical role in not only improving clinical diabetes care, but also working with partners to address the determinants of this prevalent disease. The shared PHO-RPH advocacy work was an opportunity to highlight the impact of diabetes within communities; as well as to encourage Councils to prioritise activities that will address the wider determinants of diabetes (such as changes in the urban or food environment). The PHO-RPH collaboration enabled provision of Council-specific diabetes information from both a primary care and public health perspective. The collaboration strengthened our collective voice and helped to increase the engagement of local Councils. GPs representing the PHOs provided local knowledge; RPH provided the data behind the written submission and supported the preparation and follow-up of the oral submissions. Three of the five Councils involved have already requested more input from our organisations following these submissions, highlighting the engagement that Councils had with the process.

### References:

- i. Schellenberg, ES, et al. Lifestyle interventions for patients with and at risk for type 2 diabetes: a systematic review and meta-analysis. *Annals of Internal Medicine*. 2013; 159(8):543-551.
- ii. Lindström J, Ilanne-Parikka P, Peltonen M. Sustained reduction in the incidence of type 2 diabetes by lifestyle intervention: follow-up of the Finnish Diabetes Prevention Study. *Lancet*. 2006; 368:1673-79.
- iii. Hamman RF, Wing RR, Edelstein SL. Effects of weight loss with lifestyle intervention on risk of diabetes. *Diabetes Care*. 2006; 29(9):2012-2017.
- iv. Bodicoat, D., Carter, P., Comber, A., Edwardson, C., Gray, L., Hill, S., Khunti, K. Is the number of fast-food outlets in the neighbourhood related to screen-detected type 2 diabetes mellitus and associated risk factors? *Public Health Nutrition*. 2015; 18(9):1698-1705. doi:10.1017/S1368980014002316
- v. Christine PJ, Auchincloss AH, Bertoni AG, et al. Longitudinal Associations Between Neighborhood Physical and Social Environments and Incident Type 2 Diabetes Mellitus: The Multi-Ethnic Study of Atherosclerosis (MESA). *JAMA internal medicine*. 2015; 175(8):1311-1320. doi:10.1001/jamainternmed.2015.2691.
- vi. Day PL, Pearce J. Obesity-promoting food environments and the spatial clustering of food outlets around schools. *Am J Prev Med*. 2011 Feb; 40(2):113-21. doi: 10.1016/j.amepre.2010.10.018.
- vii. Pearson AL, Bentham G, Kingham S. Associations between neighbourhood environmental characteristics and obesity and related behaviours among adult New Zealanders. *BMC Public Health*. 2014; 14:553.
- viii. Dalton AM, Jones AP, Sharp SJ, Cooper AJ, Griffin S, Wareham NJ. Residential neighbourhood greenspace is associated with reduced risk of incident diabetes in older people: a prospective cohort study. *BMC Public Health*. 2016 Nov 18; 16(1):1171
- ix. Oliver M, Witten K, Blakely T, Parker K, Badland H, Schofield G, et al. Neighbourhood built environment associations with body size in adults: mediating effects of activity and sedentariness in a cross-sectional study of New Zealand adults. *BMC Public Health*. 2015; 15:656. doi: 10.1186/s12889-015-2292-2.
- x. Ministry of Health website: <https://www.health.govt.nz/our-work/diseases-and-conditions/diabetes/about-diabetes/virtual-diabetes-register-vdr>.
- xi. Treuhaft, S., & Karpyn, A. The Grocery Gap: Who has access to healthy food and why it matters. 2010. Retrieved from: [http://thefoodtrust.org/uploads/media\\_items/grocerygap.original.pdf](http://thefoodtrust.org/uploads/media_items/grocerygap.original.pdf)
- xii. Larsen, K., & Gilliland, J. A farmers' market in a food desert: Evaluating impacts on the price and availability of healthy food. *Health and Place*. 2009; 15(4): 1158–62.
- xiii. Spronk, I., Kullen, C., Burdon, C., & O'Connor, H. Relationship between nutrition knowledge and dietary intake. *British Journal of Nutrition*. 2014; 111(10): 1713-1726. doi:10.1017/S0007114514000087
- xiv. Goodin, H. 2015. Promoting Physical Activity at the Local Government Level. Evidence Snapshot. New Zealand: Agencies for Nutrition Action.
- xv. Centers for Disease Control and Prevention. Strategies to Prevent Obesity and Other Chronic Diseases: The CDC Guide to Strategies to Increase Physical Activity in the Community. Atlanta: U.S. Department of Health and Human Services; 2011.
- xvi. Heath, G.W., Brownson, R.C., Kruger, J., Miles, R., Powell, K.E., Ramsey, L.T. & The Task Force on Community Preventive Services. The effectiveness of urban design and land use and transport policies to increase physical activity: a systematic review. *Journal of Physical Activity and Health* 2006; 3(suppl 1): S55-S76
- xvii. Centers for Disease Control and Prevention. 2011. Strategies to Prevent Obesity and Other Chronic Diseases: The CDC Guide to Strategies to Increase Physical Activity in the Community. Atlanta: U.S. Department of Health and Human Services.

# Regional Public Health Notifications

1st April 2018 to 30th June 2018



- 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: The Institute of Environmental Science and Research Ltd. EpiSurv database of notifiable conditions. 2018. Accessed 9/7/2018.

# WHAT ARE YOU REPORTING?

## THREE MONTHS OF NOTIFIED CASES IN THE HUTT VALLEY, WAIRARAPA, WELLINGTON

Dr Jonathan Kennedy, Medical Officer, Regional Public Health

Table 1. Notified cases by DHB in the Hutt Valley, Wairarapa and Wellington 1/4/2018 – 30/6/2018. Table includes 'confirmed' cases with additional 'probable' cases in brackets.

Notifiable Condition	Capital and Coast	Hutt Valley	Wairarapa	Totals
Brucellosis	(1)			0 (1)
Campylobacteriosis	97	34	22	153
Cryptosporidiosis	70	18	6	94
Dengue fever	1 (1)			1 (1)
Gastroenteritis - unknown cause	1 (5)	(6)	(2)	1 (13)
Giardiasis	44	16	5	65
Invasive pneumococcal disease	4	3	2	9
Listeriosis	1			1
Mumps	1 (1)	(3)		1 (4)
Paratyphoid fever	1			1
Pertussis	27 (7)	11	2 (2)	40 (9)
Rheumatic fever - initial attack	2			2
Salmonellosis	18	8		26
Shigellosis		2		2
Tuberculosis disease - new case	4	2	1	7
Typhoid fever		4		4
VTEC/STEC infection	18	10	7	35
Yersiniosis	29	19	6	54
<b>Totals</b>	<b>318 (15)</b>	<b>127 (9)</b>	<b>51 (4)</b>	<b>496 (28)</b>

### Notes <sup>(1,2)</sup>

1. Brucellosis was reported in a 52 year old African man admitted to Wellington Hospital with possible exposure through drinking camel milk, a known risk factor, in his country of origin four to five years earlier.
2. Cryptosporidiosis risk factors included river swimming and the consumption of untreated hut water. Cryptosporidiosis infections have reduced back to baseline levels after recent high levels related to recreational swimming exposures.
3. The two dengue fever cases were overseas during the incubation period, in India and Samoa respectively.
4. Giardia case numbers were high especially in the CCDHB area. However, source analysis was inconclusive.
5. Listeriosis was reported in an 84 year old man in a rest home with complex illness including meningitis.
6. Confirmed cases of rheumatic fever were notified in a 6 year old male from Ranui and an 11 year old male from Waitangirua.
7. Risk factors for shigellosis included consumption of cold chicken, sexual exposure and international travel (India, Pakistan, South East Asia)
8. Tuberculosis was confirmed in cases ranging in age from 15 years old to 67 years old with cases in Wellington (4 cases), Hutt Valley (2 cases) and Wairarapa (1 case).
9. VTEC /STEC cases continued to be notified in high numbers, noting the change to PCR based testing discussed in the previous edition (Issue 32) of the Public Health Post. Possible exposures for confirmed cases were: unwell human contacts, unwell animal contacts, international exposure, consumption of raw minced beef, pets (guinea pigs), tank water supplies, wild meat as pet food, pet grooming, fowl manure, unpasteurised cheese, mixed berries, raw venison, and offal.

### References

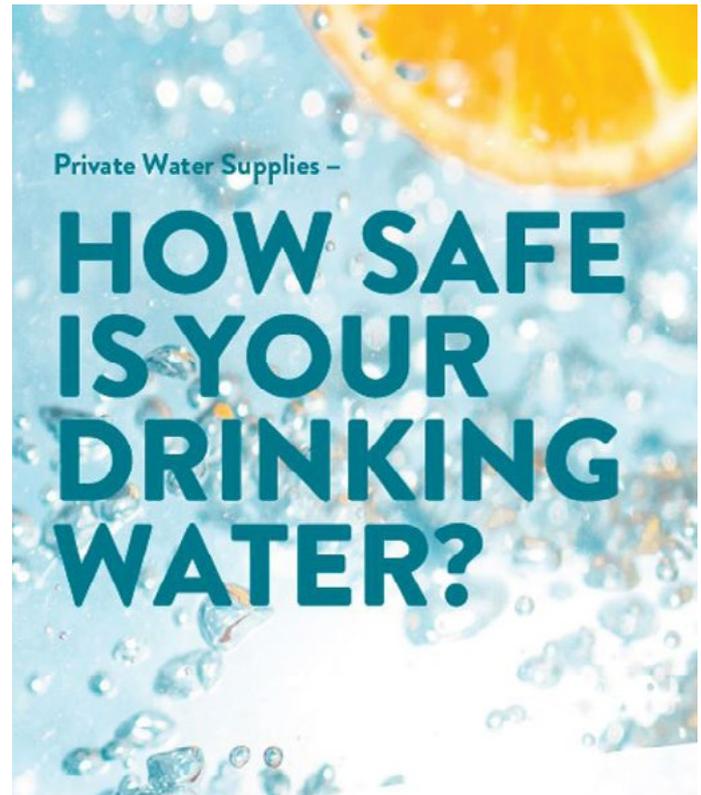
1. The Institute of Environmental Science and Research Ltd. EpiSurv database of notifiable conditions. 2018.
2. Regional Public Health. Notifiable condition surveillance records. 2018.

## PRIVATE WATER SUPPLIES COME WITH RESPONSIBILITY

With the spotlight on health relating to water supplies around New Zealand, Greater Wellington Regional Council is providing information to private water supply owners and users.

Key messages:

- If you have a private water supply (from a bore/well, stream, spring, lake or rain tank), it is your responsibility to test and treat the water so it is safe for use.
- Contaminated water may cause you and your family harm. If you suspect a problem, use an alternative source and get your water supply tested.
- More information is available at: [www.gw.govt.nz/private-water-supplies](http://www.gw.govt.nz/private-water-supplies), including who to contact with specific questions.



## DISEASE NOTIFICATION – HOW YOUR GENERAL PRACTICE CAN HELP

To enable our staff to promptly initiate disease follow up we need your help in the following ways:

1. Inform your patient of the illness they have been diagnosed with or exposed to and that public health staff may be in contact.
2. Notify Regional Public Health of the disease within a timely fashion (after the case has been informed) - by phone for urgent notifications (as soon as you are aware), or by faxing a case report form for non-urgent (within one working day). You can find a list of [urgent](#)

[vs. non-urgent notifications](#) on the Regional Public Health website under Health Professionals > Notifiable Diseases.

3. Complete all sections of the [form](#), especially:
  - work/school/early childhood centre information
  - name of parent or guardian for a child under 16 years old.

The 3D HealthPathways includes a pathway on reporting notifiable diseases: <http://3d.healthpathways.org.nz>

## 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](mailto:laurina.francis@huttvalleydhb.org.nz)

Produced by: Regional Public Health  
Private Bag 31-907, Lower Hutt 5040  
Ph: (04) 570 9002, Fax: (04) 570 9211

For enquiries regarding the Public Health Post, please contact Dr Jonathan Kennedy, medical officer, Regional Public Health, by email [jonathan.kennedy@huttvalleydhb.org.nz](mailto: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.