

Wide Bay *Public* HEALTH Matters

April 2019 PHM 4

Editorial: Dr Margaret Young

In our last newsletter, we invited readers to drop us a line, and I'm afraid we have had a zero response. I'm really not sure if this newsletter is being read, or if it's reaching people who will find it helpful. So I'm inviting readers to let us know.



Have you found any articles interesting or helpful? Have you spotted an error? Have you a suggestion for the next edition of our newsletter? If so, please drop us a line! Email us at WBPHU@health.qld.gov.au

Would you also ensure the newsletter is shared in your practice with anyone who might find the information interesting and useful. The Primary Health Network will also be uploading the newsletter on its website.

It has been a busy start to the year with lots of influenza and other respiratory viruses adding to seasonal diseases. In contrast to rumours, there have been no confirmed cases of measles, but lots of measles testing has led to the update on measles inside this edition.

We continue to get a lot of calls about the health care worker vaccination policy and hepatitis B vaccine, so we have developed an algorithm to guide GPs through the vaccination and testing recommendations, *see page 6*.

Finally, a quick word on Q fever. It is Wide Bay's most common zoonosis, with 12 confirmed cases notified in 2018. The causal agent, *Coxiella burnetii*, has an exceptional host range, being found in native fauna, and feral and domesticated mammals worldwide. Apart from cases in people working in the dairy and meat industries and occasional cases in recreational roo-shooters, we see cases in people whose only risk factor is living in regional Queensland – whose exposure may be through inhalation of spores in an environment contaminated by kangaroos or other animals. Please suspect Q fever in people presenting with a history of abrupt onset of fever, chills and rigors lasting 3 to 4 days, profuse sweating, severe headache, myalgia and arthralgia, and fatigue, especially if complicated by pneumonia or hepatitis. Weight loss during the acute phase of illness can be significant. The diagnosis can be established in the acute phase with PCR on blood and Q fever serology. Common treatment is doxycycline. Further information is available at: <http://www.health.gov.au/internet/main/publishing.nsf/Content/cdnasongs.htm>

Easter Office Closure Notification

The Wide Bay Public Health Unit will be closed **Friday 19 April and Monday 22 April and also Anzac Day Thursday 25 April**. For urgent communicable disease or environmental health issues, call the on-call Public Health Physician on 3646 1699 or via switchboard of your nearest public hospital.



Measles



Despite rumours, **there have been no cases of confirmed measles in Wide Bay since 2013**. In that year, there were two cases; one in a returned traveller and the other in a backpacker. Usual contact tracing occurred, contacts were offered vaccination as appropriate, and there were no secondary cases.

The WBPHU follows up all measles test requests. There are lots of these and they have surged recently, following reported cases of measles in other areas of Queensland and interstate.

The high interest in measles reflects Australia's strategy to eliminate measles, and declining numbers receive heightened attention.

Our Public Health Physician was on call over Christmas for a third of the state, and followed up a case of measles in a 30 year old Brisbane man who had travelled to Asia. He had sought travel advice prior to travel and had been recommended all relevant travel vaccines, except MMR. The take-home message is point 2, below.

What can GPs do to keep measles under control?

1. Continue to achieve and build on high vaccination rates in children. Coverage in Wide Bay is currently just under 93% at 2 years, the point which reflects MMR vaccination at 12 and 18 months. By 5 years our coverage is over 96%, which is fantastic.
2. Offer MMR vaccine to anyone dreaming of or planning overseas travel, if they were born during or since 1966 and do not have evidence of two doses of MMR vaccine. Use funded stock.
3. If you suspect measles clinically, please obtain a travel history. Measles is currently unlikely in anyone who has not travelled outside the area.
4. Continue to test if you suspect measles
5. Notify the WBPHU if you suspect measles

When to test?

Measles is characterised by:

- Prodrome of several days - fevers, cough, conjunctivitis, coryza, anorexia
- Koplik's spots (bluish-gray specks on a red base on the buccal mucosa and mucus membranes of mouth generally)
- Fevers, cough and malaise persisting and peaking during first or second day of rash
- Maculopapular rash becoming confluent, classically beginning on the face and proceeding down the body, ultimately involving the palms and soles and potentially desquamating

Testing for measles infection

Clinical timeline	Recommended test for measles infection
0 to 3 days after rash onset	PCR on nasopharyngeal swab and urine
0 to 7 days after rash onset	PCR as above, PLUS serology (IgM for acute infection, IgG for immunity)
More than 7 days after rash onset	Serology (IgM)

2019 INFLUENZA SEASON: SUMMARY ADVICE

When is the best time to vaccinate?

- Vaccinate pregnant women NOW.
- Order FluQuadri Junior and Fluarix Tetra NOW and commence vaccination of children as soon as vaccine is available.
- Vaccinate travellers prior to overseas travel, and consider vaccination in patients who are travelling to southern states or north Queensland.
- For older patients who are not travelling, try to put vaccination off until May, if that can be done without undue distress. Don't hesitate to vaccinate those who insist on vaccination now.

Rationale:

Children are big spreaders of flu, so vaccinating children may reduce community spread. Pregnant women are vulnerable to complicated influenza and adverse pregnancy outcomes, so ensure they are offered the benefits of vaccination.

Annual influenza vaccination is recommended before the influenza season starts. There is always some influenza activity year-round. This year has been marked by high numbers of influenza notifications over the summer and early autumn, particularly in north Queensland. However, weekly notifications in all areas of central and southern Queensland are still fluctuating. The absence of a sustained week to week increase indicates there is still no widespread community transmission and the flu season has not yet started. The influenza graph at the end of the newsletter shows the pattern in previous years. For the past 9 years of surveillance the increase in influenza marking the onset of the flu season in Wide Bay has occurred between late June and early August, and the peak between mid-August and mid-September. On the balance of probability, the flu season will follow past trends. As protection provided by the vaccine wanes over a 4 month period, especially in older persons, WBPHU considers that the optimum time to vaccinate older persons in our region is from May.

Who is eligible for funded vaccine?

In Queensland, annual influenza vaccination is funded for:

- All Aboriginal and/or Torres Strait Islander people aged 6 months and older
- All children aged 6 months to 59 months (up to the 5th birthday)
- All adults aged 65 years and older
- Pregnant women (at any stage of pregnancy)
- People with specified medical conditions (cardiac disease, chronic respiratory conditions, chronic neurological conditions, immunocompromising conditions, diabetes and other metabolic disorders, renal disease, haematological disorders and long-term aspirin therapy in children aged 6 months to 10 years).



What is recommended for people aged 65 and older?

Enhanced vaccines were introduced into Australia in 2018 to promote a better immune response to the vaccine thus providing better protection against influenza in people aged 65 years and older. In 2019, Fluad is the only funded enhanced vaccine. Fluad is estimated to be 25% more effective in preventing hospitalisation for influenza or pneumonia than standard vaccines.

Although the enhanced vaccines contain one less influenza B strain than the quadrivalent vaccine, the benefits of enhanced protection are likely to outweigh the potential loss of protection against the missing alternative B strain. Studies have shown that older people tend to have some level of immunity to B strains because of exposure to these strains in prior seasons.

Who should have two doses of seasonal influenza vaccine?

Two doses of seasonal influenza vaccine given at least 4 weeks apart are recommended for:

- Children aged less than 9 years having seasonal influenza vaccine for the first time
- People of any age who have recently had a haematopoietic stem cell transplant or solid organ transplant

Two doses of vaccine are not recommended for people aged 65 years and older who fall outside the category above.

There is no recommendation to give a quadrivalent influenza vaccine to people aged 65 years and older who have already received a recommended trivalent vaccine.

The use of multiple types of vaccines in one season has not been studied. While not recommended, the National Centre for Immunisation Research and Surveillance notes that administration of both vaccine types to an individual is not contraindicated and there are no serious safety concerns. So if a patient aged 65 and older presents requesting funded vaccine, and gives a history of already having privately purchased a quadrivalent vaccine, you can go ahead and give the recommended vaccine. WBPHU cannot comment on optimal timing of additional doses as it has not been researched.

Can I give the seasonal influenza vaccine to patients who have egg or latex allergy?

Because of contemporary vaccine manufacturing methods, the amount of material from the egg protein in influenza vaccine is usually less than 1 microgram per dose. Recent studies have shown that people with egg allergy, including egg-induced anaphylaxis, have safely received influenza vaccines available in Australia.

Influenza vaccines used in Australia are latex-free and safe for use by people with a latex allergy or sensitivity. Although the product information for Fludax and Fluarix Tetra state that some presentations of the vaccine cannot be considered latex free (as the sheath covering the needle contains latex), these presentations are NOT supplied in Australia.

The National Centre for Immunisation Research and Surveillance 2019 fact sheets for influenza vaccines for 2019 are available at:

<http://ncirs.org.au/ncirs-fact-sheets-faqs/influenza-vaccines-australians-faqs>

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The 2019 registered seasonal influenza vaccines by brand, funding and recommended age are:

2019 AUSTRALIAN SEASONAL INFLUENZA VACCINES, BY BRAND AND RECOMMENDED AGE							
	Quadrivalent					Trivalent (for 65 years and over)	
Vaccine / Registered age group	FluQuadri Junior 0.25MI (Sanofi)	Fluarix Tetra 0.5MI (GSK)	FluQuadri 0.5MI (Sanofi)	Afluria Quad 0.5MI (Seqirus)	Influvac Tetra 0.5MI (Mylan)	Fluad 0.5MI (Sanofi)	Fluzone High-Dose 0.5MI (Seqirus)
< 6 months	x	x	x	x	x	x	x
6 to 35 months	✓ Preferred	✓*	x	x	x	x	x
36 to 59 months	x	✓	✓	x	x	x	x
5 to 17 years	x	✓	✓	✓	x	x	x
18 to 64 years	x	✓	✓	✓	✓ Not funded	x	x
65 years and older	x	x	x	x	x	✓	x Not funded

* The correct dose of Fluarix Tetra for all ages including infants from 6 to 35 months is 0.5mL. In contrast, the correct dose of FluQuadri Junior for infants from 6 to 35 months is 0.25mL.

Updated Pertussis Recommendation for pregnant women

Every year in Australia, an average of 1 death and more than 200 hospitalisations related to pertussis occur in infants <6 months of age. These infants are too young to be fully immunised. Vaccination during pregnancy reduces the risk of pertussis in young infants by 90%. This results from direct passive protection by transplacental transfer of pertussis antibodies from the mother to the fetus during pregnancy. The recommendation for maternal pertussis vaccination has been updated and is effective immediately.

Vaccination is recommended with each pregnancy, including pregnancies that are closely spaced, to provide maximal protection to every infant. This is because:

- Vaccine-induced pertussis antibody levels wane over time
- The antibody level needed in mothers to pass on immunity to newborn infants is unknown



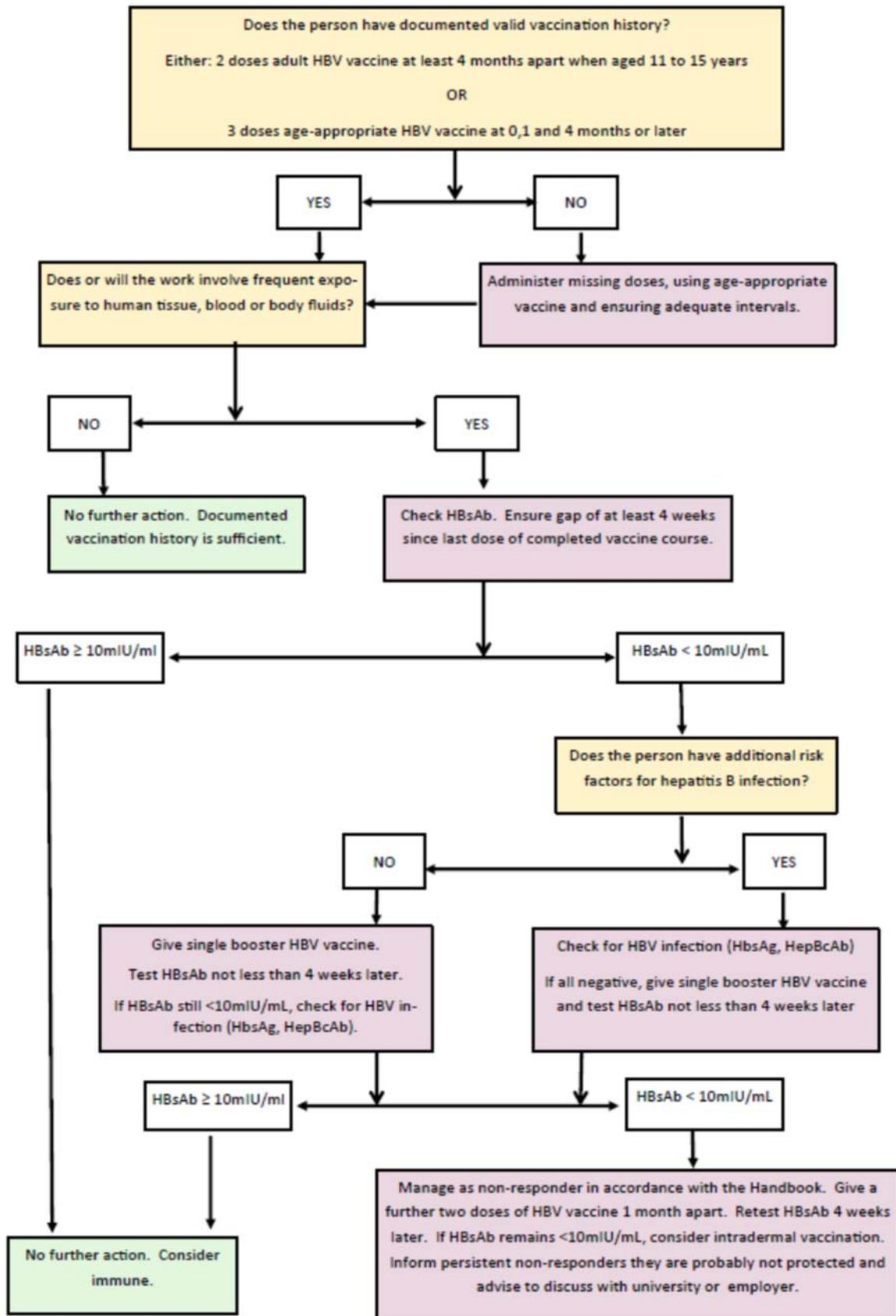
The optimal time for pertussis vaccination in pregnancy is between mid-2nd trimester and early 3rd trimester (between 20 and 32 weeks gestation.)

If pregnant women are **not** vaccinated between 20 and 32 weeks, they should receive pertussis-containing vaccine as soon as possible **and** at any time up to delivery. If given within 2 weeks of delivery, the newborn may not be adequately protected.

If pregnant women inadvertently receive the vaccine earlier than 20 weeks, they **do not** need a repeat dose during the same pregnancy. Evidence shows transfer of pertussis antibodies to the infant in women who received *dTpa* vaccine as early as 13 weeks gestation.

Source: <https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/pertussis-whooping-cough>

ALGORITHM: HEPATITIS B VACCINATION FOR HEALTH CARE WORKERS



AUSTRALIAN IMMUNISATION REGISTER

VACCINE DOSE Numbers: A guide to help you get them correct

2 month	<ul style="list-style-type: none"> • Infanrix hexa [DTP- HepB-IPV-Hib vaccine] • Prevenar 13 [13v pneumococcal conjugate vaccine] • Rotarix [rotavirus vaccine] 	Dose 1 Dose 1 Dose 1	
4 month	<ul style="list-style-type: none"> • Infanrix hexa [DTP- HepB-IPV-Hib vaccine] • Prevenar 13 [13v pneumococcal conjugate vaccine] • Rotarix [rotavirus vaccine] 	Dose 2 Dose 2 Dose 2	
6 month	<ul style="list-style-type: none"> • Infanrix hexa [DTP- HepB-IPV-Hib vaccine] • Prevenar 13 [13v pneumococcal conjugate vaccine] 	Dose 3 Dose 3	MEDICAL AT-RISK and/or INDIGENOUS INFANTS AIR will move this 'additional' vaccination to the 12mth schedule point. Ignore this, as this at-risk infant will still require a 4 th dose at 12mths
12 month	<ul style="list-style-type: none"> • MMR-II or Priorix [Measles/Mumps/Rubella – MMR vaccine] • Nimenrix [ACWY Meningococcal vaccine] • Prevenar 13 [13v pneumococcal conjugate vaccine] • Prevenar 13 [13v pneumococcal conjugate vaccine] For Indigenous children only <ul style="list-style-type: none"> • Vaqta [Paed Hepatitis A] 	Dose 1 Dose 1 Dose 3 Dose 4 Dose 1	MEDICAL AT-RISK and/or INDIGENOUS INFANTS AIR will have pushed the 6mth Prevenar 13 to 12mth schedule point and won't be showing the 12mth dose being due. Regardless of whether showing on AIR as being due or not, this at-risk infant does require 4 th dose of Prevenar 13
18 month	<ul style="list-style-type: none"> • Priorix Tetra or ProQuad [Measles/Mumps/Rubella/Varicella - MMRV vaccine] • Infanrix or Tripacel [DTPa] • Act-Hib [haemophilus influenzae type B - Hib] For Indigenous children only <ul style="list-style-type: none"> • Vaqta [Paed Hepatitis A] 	Dose 2 Dose 4 Dose 4 Dose 2	DTPa - if child born before 1/10/2014, then 18mth DTPa booster dose was not required. If this vaccine was given when not required, call dose 3. Remember this is 4 th Hib dose [as Hib in Infanrix hexa]
4yr old	<ul style="list-style-type: none"> • Infanrix-IPV or Quadracel [DTP-IPV vaccine] 	Dose 5	If child born before 1/10/2014, then this will be dose 4. If born after, then this 2 nd booster is dose 5
Yr 7 School	<ul style="list-style-type: none"> • Boostrix [dTpa] • Gardasil 9 [HPV9] 	Dose 5 or 6 Dose 1 & 2	Count the number of previous doses on AIR – D5 if 18mth vaccine not required. Could also be D4 if 4yr old vaccinations were missed. 2 dose course to 15yrs. Note, it is a 3 dose course [0,2,6] if course commenced after person is 15yrs of age
Yr 10 School	<ul style="list-style-type: none"> • Menactra or Nimenrix [MenACWY] 	Dose 1 or 2	**this will be dose 2 if the person had MenC [NeisvacC or Menitorix] previously

- If entering catch-up vaccinations, ALWAYS check what dose numbers are already on AIR
- If an error is found on AIR, please do **NOT** resubmit the data as this will cause duplicate records. Please do a secure email and ask AIR to correct. If unsure, call us at WBPDU for advice
- WARNING, ignore the AIR "Immunisation History Statement" PDF when checking for an immunisation history. Always expand the Immunisation History section in AIR to view ALL the previous immunisation recorded. NOTE, the Immunisation History Statement does not list vaccinations that are given but 'pending' or if there is another issue where AIR has not yet accepted that dose

AUSTRALIAN IMMUNISATION REGISTER

DO'S AND DON'TS

When looking at AIR histories, there are two methods to review what immunisations have been administered:

1. By expanding the Immunisation History section and scrolling through all the vaccinations
2. By selecting the "Immunisation History Statement" button and a PDF summary document is produced

Question: Is there a difference in the product each method produces?

Answer: Yes

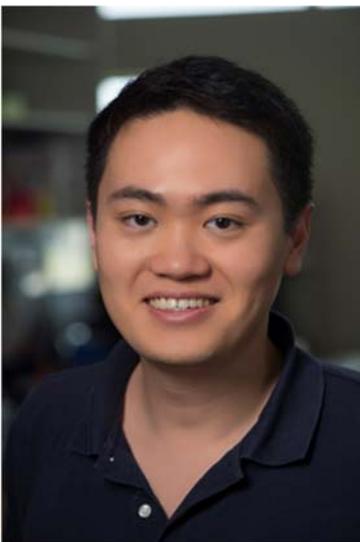
Do Not...

Refer to the "Immunisation History Statement" at any time prior to vaccinating or conducting a catch up plan

Why??

If a vaccination that has previously been administered has been put onto the AIR but is sitting partially processed for what ever reason (eg. Incorrect does number), it *will not* show up on the "Immunisation History Statement".

It will show up in the expanded immunisation history section, however will have partially processed next in the Status.



We would like to welcome our new registrar Dr Michael Chou to Wide Bay! He is working with multiple areas of our health service to evaluate and pilot sustainability initiatives. He comes to us after several years in Baltimore, where he was a Fellow in Human Genetics and Epidemiology at Johns Hopkins. At the recent Fraser Coast Local Medical Association Dinner, he expressed appreciation for the coastal winds in the Bay. He looks forward to getting to know the region better and working with you all.

What are the risks in referring to the Immunisation History Statement??

1. Over-vaccination
2. Increase chance of reactions to vaccines
3. Medication errors

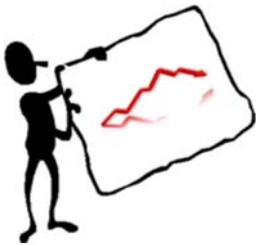
When is it ok to refer to the "Immunisation History Statement"??

As a vaccine service provider, due to the potential of missing information, it is not ok to refer to it for any reason.

Do...

You can, however, provide a copy of this to the parent/guardian/patient (as education centres do prefer this document as it states up the top whether or not a person is up to date). However if you do print this out for a parent/guardian/patient, it is important **to check that all vaccinations have gone onto the Statement prior to providing them a copy.**

Say Hello To:



IT'S ALL IN THE NUMBERS!

Wide Bay Hospital and Health Services Communicable Disease Notifications

The Wide Bay Public Health Unit covers the same geographical area as the Wide Bay HHS. Miriam Vale Shire is part of Gladstone Regional Council, however, it is within the Wide Bay HHS, and is included for this report. The Public Health Physician based in Hervey Bay is responsible for notifications in the Wide Bay HHS.

The ten conditions in the table accounted for about 88.7% of all Queensland notifications during the period 01 July 2018 to 30 September 2018.

Top 10 notifications for Queensland compared to Wide Bay HHS for the period 01/01/2019-31/03/2019

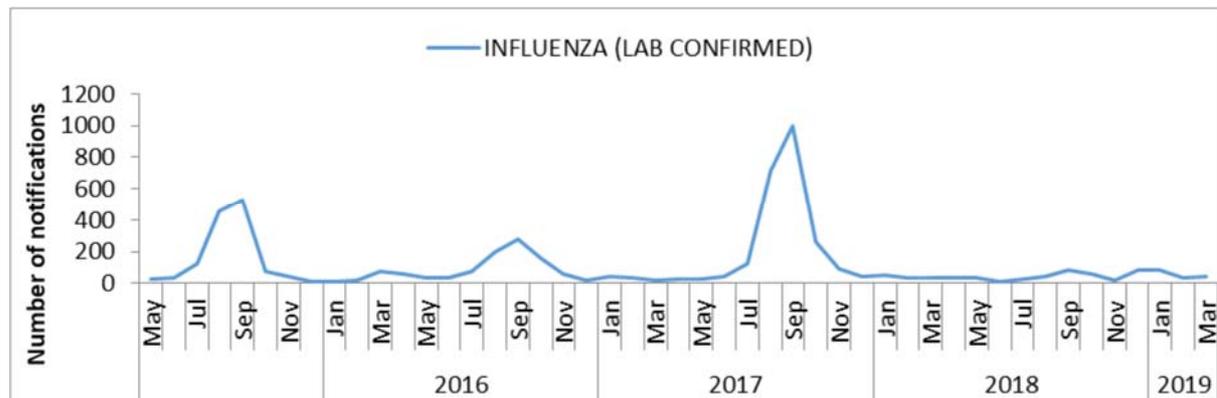
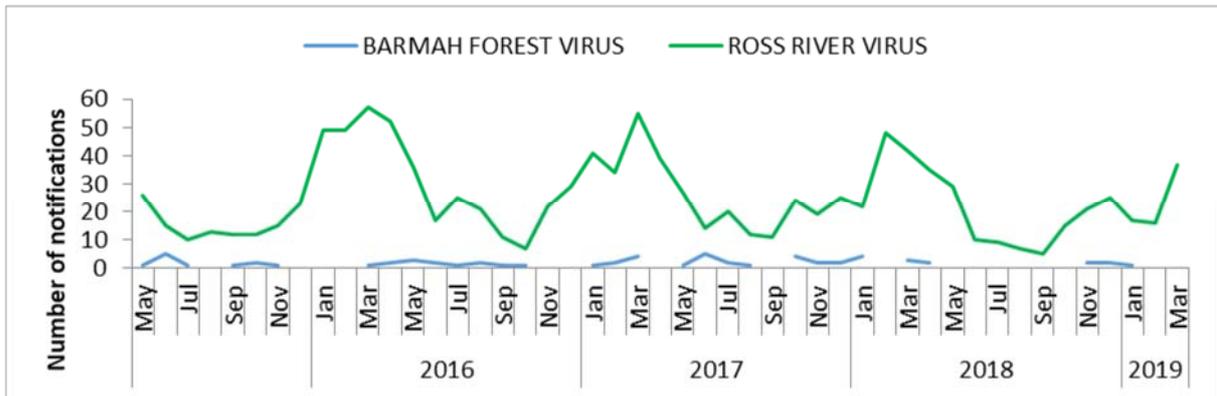
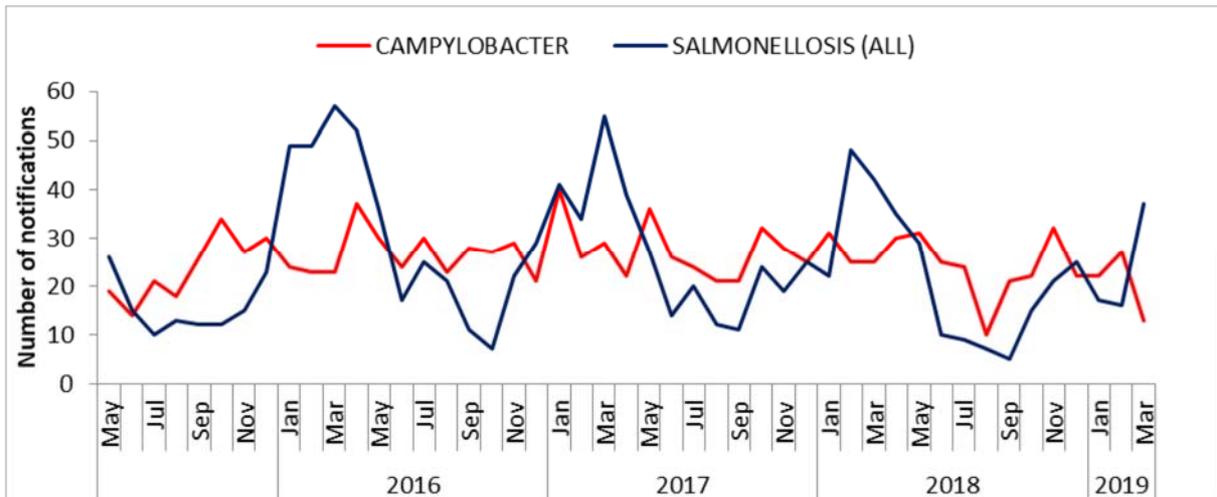
Notifiable disease	Count and Rate per 100,000 population*													
	Wide Bay Public Health Unit								Queensland					
	Bundaberg Regional Council		Fraser Coast Regional Council		Agnes Water-Miriam Vale (Regional Area)		North Burnett Regional Council							
Influenza (Lab Confirmed)	77	(81.3)	^	81	(77.8)	^	<5	~	<5	~	6639	(95.9)	^	
Chlamydia (STI)	95	(100.3)	^	74	(71.1)	^	<5	~	10	(93.7)	^	6167	(71.2)	^
Campylobacter	29	(30.6)	~	29	(27.1)	~	<5	~	<5	~	2517	(38.3)	^	
Varicella	50	(52.8)	^	33	(31.7)	~	<5	~	<5	~	2338	(36.3)	~	
Gonorrhoea (STI)	30	(31.7)	^	6	(5.8)	~	0	~	<5	~	1469	(22.3)	^	
Salmonellosis (All)	28	(29.6)	^	35	(33.6)	^	<5	~	<5	~	1216	(11.3)	~	
Hepatitis C	6	(6.3)	~	36	(34.6)	^	<5	~	<5	^	547	(10.6)	^	
Excess Lead Exposure	<5		~	5	(4.8)	~	0	~	0	~	493	(8.5)	^	
Pertussis	<5		~	9	(8.6)	^	<5	^	<5	^	414	(6.6)	^	
Ross River Virus	8	(8.5)	^	5	(4.8)	~	<5	~	0	~	378	(4.8)	~	

*2017 population data used to calculate the rates.

^ Above same time last year

~ Below same time last year

Graphs of notifications for the Wide Bay Public Health Unit are given below. Due to larger numbers of notifications Influenza notifications are graphed separately and common Foodborne and Arbovirus notifiable diseases grouped together on separate graphs.



Office	Address	Postal	Phone	Fax
Hervey Bay	Unit 6, 65 Main Street Hervey Bay 4655	PO Box 724 Hervey Bay Q 4655	07 41841800	07 41841809
Bundaberg	Lvl 1, 14 Branyan St Bundaberg 4670	PO Box 185 Bundaberg Q 4670	07 43037500	07 43037599
After Hours contact for urgent notifications: 3646 1699				
Vivas Data Information/ Histories: Fax 43037559				

Wide Bay Public Health Matters is produced by the Wide Bay Public Health Unit. The target audience is clinicians, particularly those working in primary health care. The newsletter aims to provide timely information and advice on relevant issues.