POST-VACCINATION SEROLOGY FOR BABIES OF HBsAg-POSITIVE MOTHERS

- All infants born to HBsAg positive mothers should have their hepatitis B serology tested after the five month immunisations. In the past year, only half (55%, 21/38) of these high-risk infants have been tested.
- Both HBsAg and Anti-HBs should be requested to confirm the infant is protected and identify the 2-3% of infected children.
- Clinical information on the request form should include maternal HBsAg status and infant immunisation history (including hepatitis B immune globulin).
- Any infant aged less than 12 months with a positive HBsAg result should be notified to the Medical Officer of Health.

IMMUNISATION ISSUES

HB Reaches 91% Immunisation Coverage Rate

Childhood immunisation coverage rates in Hawkes Bay continue to be higher than the national average. For the last quarter 91% of our 2 year olds were fully vaccinated compared to the national average of 81%. Hawke's Bay's rate for Maori was 90% whilst the national average was 76%. Children living in deprivation areas 9-10 also showed coverage rates of 90%. These excellent results are an indication of the hard work and commitment of many people, especially practice nurses.

National Immunisation Register Proving Very Useful Tool

The NIR is now 4 years old! Vaccinators, Well Child Providers, Family Start and staff from the Children's Ward are now making constant use of the NIR to check on the status of children's immunisations. Having these immunisations recorded on NIR is saving vaccinators' time ringing around to track down details of vaccinations.
The register is also proving invaluable in helping keep track of very mobile children. The immunisation team links children with a GP wherever possible and helps track overdue children. NIR Overdue Reports are sent out to all practices monthly and not only prove a valuable back stop to the clinics' systems but provide an effective way of updating changes of provider.

Make Use of the Online Features of NIR

Prevent double vaccinations: We have seen a number of double vaccinations recently. Always status query children who are late or have come from another town to make sure the child has not been vaccinated already. Most practice nurses are able to do a status query (SQ) from their practice computer system. Otherwise ring the HB NIR team on 0800 729 100.
Save time keying in patient details or manually updating immunisation records: Use the status query to bring back details and then use the update button to upload the details. This is especially useful for a child new to your practice.
Vaccinate opportunistically: Use the status query or phone the NIR team and take every opportunity to catch children overdue for their vaccinations.

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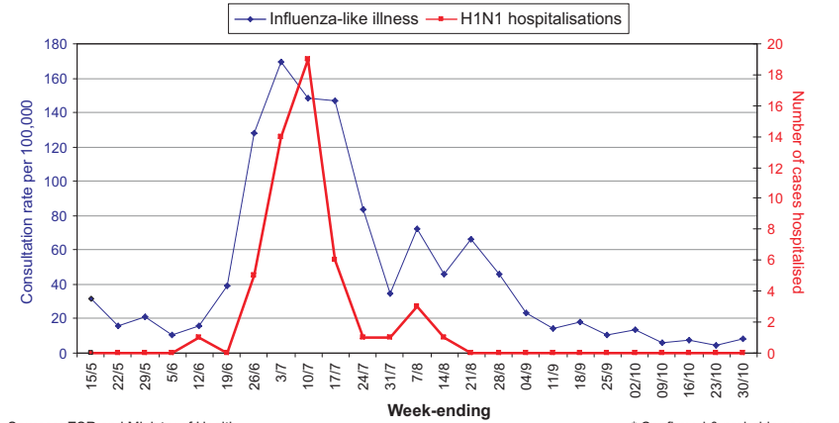
INFLUENZA

The 2009 influenza season was dominated by a pandemic of a novel influenza A (H1N1) virus (pandemic virus).

Infection with confirmed novel influenza A became notifiable soon after the World Health Organization issued a pandemic alert in April and up until November 17 there were 174 cases reported in Hawke's Bay. Confirmatory testing was limited once pandemic control efforts switched to "manage it" phase when testing was indicated only when it would influence clinical management, hospital infection control or the management of institutional outbreaks. Thus the number of notified cases does not represent the true magnitude of the pandemic although it does provide information about patients admitted to hospital since all admitted cases of influenza-like illness (ILI) were tested.

Figure 1: Weekly consultation rate for Influenza-like Illness from HealthStat and H1N1 hospitalisations* reported in Hawke's Bay.



Sources: ESR and Ministry of Health

* Confirmed & probable cases only

More representative measures of community-wide incidence were provided by patient visit and swab data collected in two general practice based systems. Weekly incidence rates were monitored using data from HealthStat. HealthStat is a computer-based system that automatically downloads anonymized visit information from a random sample of approximately 80 general practices including 5 within Hawke's Bay. Patients are counted when visits are coded for (ILI) and reported by the Ministry of Health. Throat swab testing performed by sentinel practices provided weekly updates on circulating virus strains. The four sentinel practices in Hawke's Bay each collected swabs on a sample of patients with ILI as well as reporting the total number of visits.

Trends from these systems are shown in figures 1 and 2. Figure 1 shows the GP consultation rate per week along with the total number of hospital admissions for confirmed novel H1N1 influenza. The temporal trends are highly correlated although there appears to have been an increase in GP ILI visits a week before hospitalizations began to increase. Figure 2 shows that in early winter ILI was mainly due to seasonal influenza strains but by July was almost all due to infection with the novel strain. The figure also shows that the proportion of swabs that are positive for any type of influenza virus was 50%-60% during the months of June and July and dropped rapidly in August. This suggests that patients seen with ILI during June and July had about a 50% chance of having an illness actually caused by a virus other than influenza. Since August it appears that most patients with an ILI are unlikely to have been infected with any type of influenza virus.

Prescribers of government-reserve Tamiflu were asked to provide the DHB with a pandemic form. Analysis of data collected from these forms in Hawke's Bay showed a marked ethnic disparity in rates of illness meeting the Tamiflu prescription criteria. Most heavily affected were Pacific Islands people (rate 455/100 000) and Māori (380); Asian (227); European (169). Female had higher rates (267/100/000) than males (195). Children 0-9 years and young adults 15-29 years had much higher rates than other age groups. Those aged 70+ had the lowest rate due to some cross-immunity from past influenza infections. Seventy per cent of those receiving prescribed Tamiflu were given it for severe ILI; 26% were given it because they were in a “high-risk group”. Twenty-six per cent received antibiotics as part of their treatment and a further 8% received prophylactic antibiotics. Figure 3 shows the high rates of Tamiflu prescribing in census area units of high deprivation (and high Māori/Pacific Islands people population).

Many northern hemisphere countries are reporting early starts to their influenza season, high rates of ILI and high proportions of pandemic virus detections. Doctors should remain alert for the possibility of pandemic virus infection in people returning from the northern hemisphere with ILI. For guidance on investigation and treatment please refer to the last Medical Officer of Health Advisory Notice (3 July 2009). Note government-reserve Tamiflu and antibiotics can currently only be accessed from Wairoa and Hawke's Bay hospitals. The details were provided in a fax to GPs on 7th October 2009. If you want another copy please request it from Paul Buckley at the Public Health Unit.

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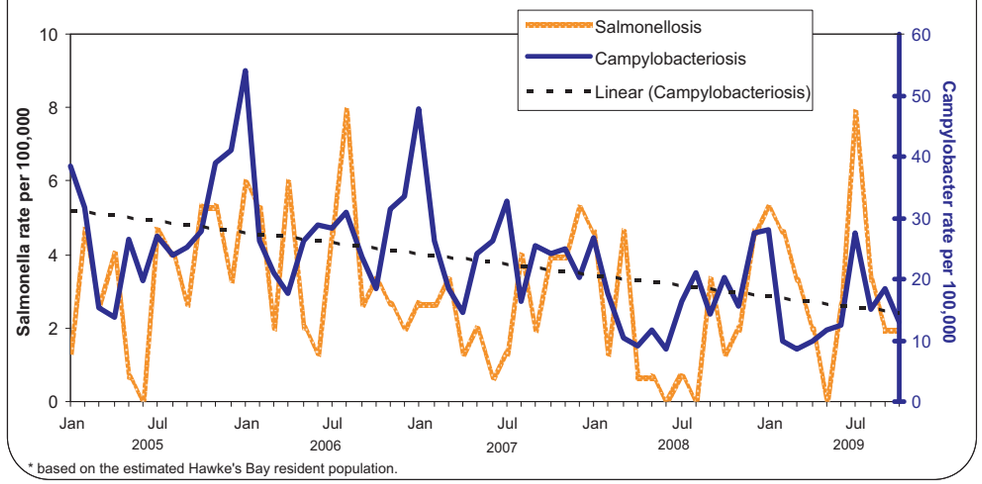
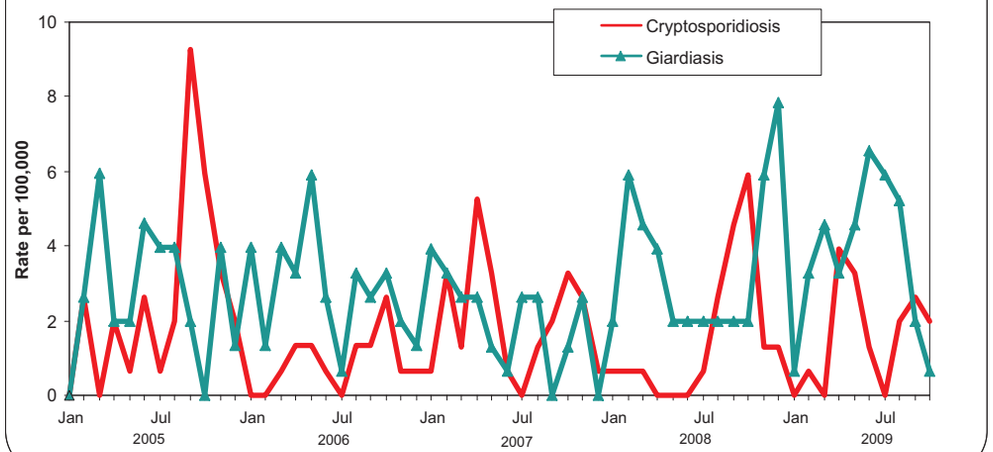
Figure 4: Enteric disease rates* in Hawke's Bay by month, Jan 2005 to Oct 2009



* based on the estimated Hawke's Bay resident population.

Figure 5: Enteric disease rates* in Hawke's Bay by month, Jan 2005 to Oct 2009



* based on the estimated Hawke's Bay resident population.

NOTIFIABLE ENTERIC DISEASE

Rates of the most common notifiable enteric diseases are shown in Figures 4 & 5 (includes laboratory notifications). Notification data suggest that these diseases tend to affect preschoolers and young adults (15-29) more than other age groups, males more than females, and Europeans more than other ethnic groups. These data may be affected by consultation behaviour. For example a recent national acute gastrointestinal illness community survey has shown that Māori have higher rates than European/Other (when Pacific Islands people and Asians are excluded) so notification data are probably biased by ethnic differences in GP consultation rates or faecal specimen collection. The decline in campylobacteriosis is attributed to the introduction of compulsory flock testing and a range of food hygiene strategies in recent years.

With the advent of warmer temperatures, summer food habits and recreational water exposure, doctors and practice nurses are asked to stress to patients the importance of safety practices related to food, drinking water and recreational water.

Useful websites can be found at: http://www.nzfsa.govt.nz or http://www.foodsafe.org.nz

Hawke's Bay District Health Board offers the following up-to-date information:

Shellfish Hotline (06) 878-1329 B4U Swim Line (06) 878-1368

- Guidance on exclusion and clearance for cases and contacts of enteric disease is enclosed with this bulletin. Please keep this handy for future reference.
- When notifying diseases please provide occupations (including the hobbies and activities of "retired" people) and patient phone numbers. This information greatly assists Public Health Unit follow up.

COMMENTARY ON DISEASE SURVEILLANCE SUMMARIES (Page 5)

Pertussis rates are increasing in NZ and Hawke's Bay. The substantial outbreak of measles in Canterbury is now over and measles is *rare* in Hawke's Bay (only one confirmed case in 2009, in October).

FOR ALL MEASLES AND PERTUSSIS CASES

- Notify Public Health on suspicion to discuss lab testing
- Collect nasopharyngeal swabs for culture (pertussis) and for PCR (measles)
- Do serology (for measles only)
- Warn the lab that the case is coming so they can prevent transmission in collection rooms
- See the last issue of *Public Health Advice* (July 2009) for further comments on lab testing

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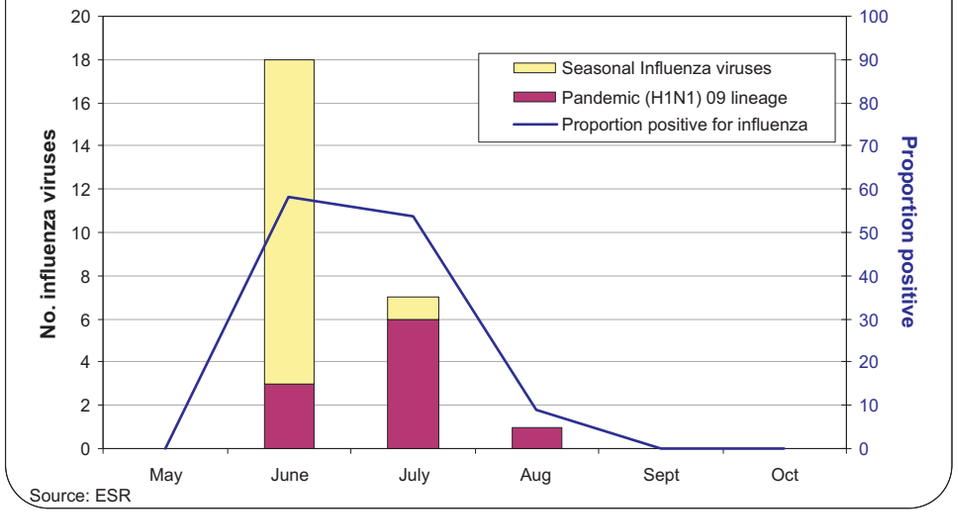
Figure 2: Positive influenza virus tests from sentinel surveillance practices by type & month and the total percentage positive from swabs received



Source: ESR

Next year's seasonal influenza vaccine will contain the pandemic virus. The Ministry of Health is planning to:

- Encourage greater uptake of subsidised immunisations by the eligible population, particularly among those aged under 65.
- Extend eligibility for subsidised immunisation to pregnant women and people with morbid obesity.
- Subsidise influenza immunisations for children 6 months to 4 years who are enrolled in Access Primary Health Organisations.
- Run an influenza public information programme to continue promoting hygiene messages and encourage immunisation.
- Put in place additional safety monitoring and implement changes to the patient management systems in general practices so influenza immunisations are recorded and monitored through the National Immunisation Register.

More definition on the above extensions in eligibility will be supplied by the Ministry before the season commences.

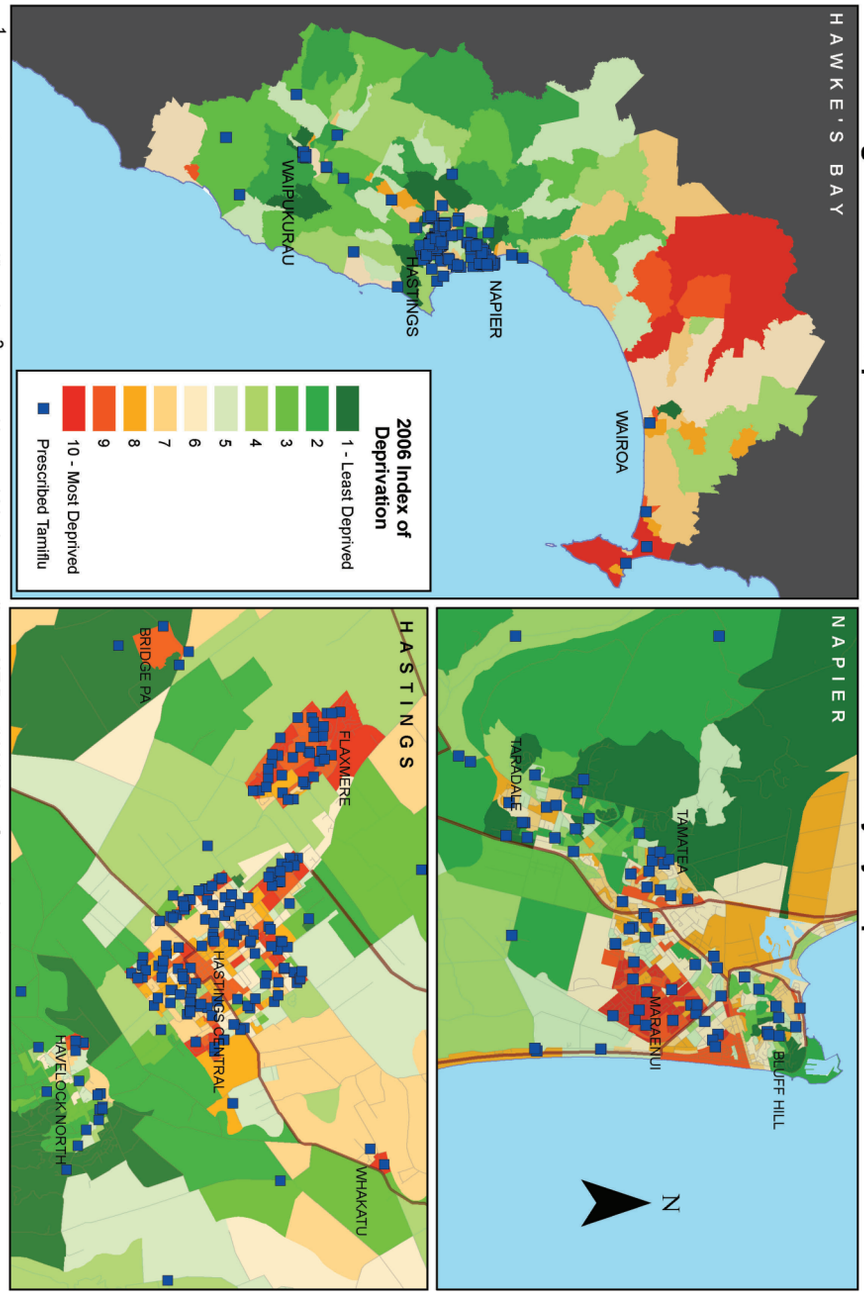
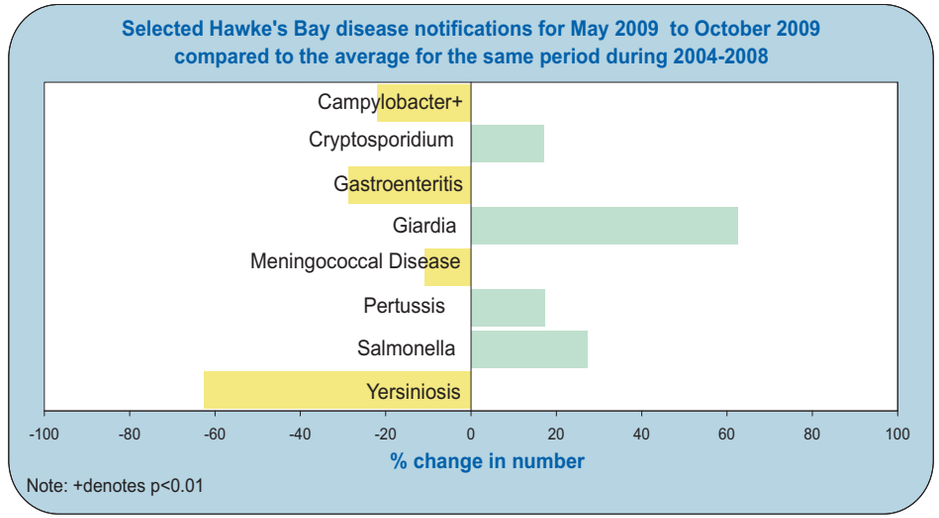


Figure 3: Patients prescribed Tamiflu[1] in Hawke's Bay by Deprivation Index.[2]

[1] government -reserve tamiflu only. [2] mapped by meshblock according to NZ Dep 2006 (from Census data).

DISEASE SURVEILLANCE SUMMARIES



Selected notifications Nov 2008 to October 2009

	Hawke's Bay		New Zealand	
Disease	**Cases**	**rate***	**Cases**	**rate***
Campylobacteriosis	308	200.9	7027	164.6
Cryptosporidiosis	33	21.5	821	19.2
Gastroenteritis	8	5.2	351	8.2
Giardiasis	77	50.2	1634	38.3
Hepatitis A	4	2.6	52	1.2
Invasive pneumococcal disease	34	22.2	720	16.9
Lead absorption	5	3.3	402	9.4
Legionellosis	4	2.6	87	2.0
Leptospirosis	10	6.5	84	2.0
Measles	1	0.7	261	6.1
Meningococcal disease	10	6.5	139	3.3
Non seasonal influenza A (H1N1)	174	113.5	3657	85.7
Pertussis	25	16.3	1240	29.0
Rheumatic fever	4	2.6	143	3.4
Salmonellosis	60	39.1	1207	28.3
Tuberculosis disease	8	5.2	305	7.2
VTEC/STEC infection	4	2.6	152	3.6
Yersiniosis	15	9.8	439	10.3

* Annualised crude rate per 100,000 population calculated from 2008 mid-year population estimates.