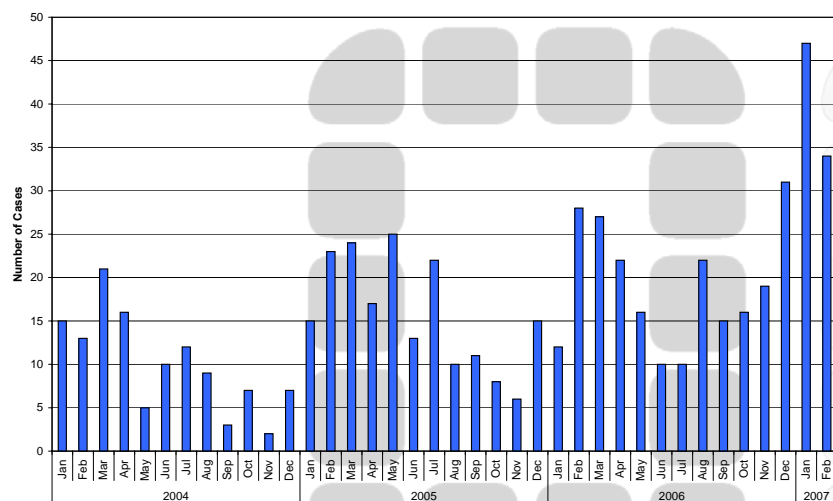


From the Director's desk

Cryptosporidiosis Alert

There has recently been an increase in the number of cases of cryptosporidiosis notified in Western Australia, particularly in the metropolitan region and the South West where notifications have been above average for this time of year. Cases are predominantly children aged under 4 years of age, although there has also been a steady increase in cases in the 20 to 29 year old age group. For the 3 month period of December to February, the State average for 2004 to 2006 was 46 cases. For December 2006 to February 2007 to date, 106 cases of cryptosporidiosis have been notified.

Figure: Total number of cryptosporidiosis cases in WA, Jan 2004 to Feb 2007



Investigations so far have found clusters of cases linked to an animal petting farm and a domestic swimming pool. Public Health Nurses are following up all cases.

Cryptosporidiosis cases present with diarrhoea that is frequently watery, vomiting, nausea and abdominal cramps. Severity varies between individuals. It is a self-limiting, cyclical disease lasting from 1 to 2 weeks with no treatment recommended except hydration management. Test if cryptosporidiosis is suspected.

- Patients with cryptosporidiosis need to be particularly vigilant with their hygiene to prevent the spread of infection.
- Children under 5 years with cryptosporidiosis should be excluded from child care and school until 48 hours after symptoms cease, and should not swim for 2 weeks after symptoms resolve.
- Adults employed in food handling or health care should be excluded from their place of work until 48 hours after symptoms cease.
- Older adults and older children can return to school or work once symptoms have ceased.

Sexual Health Forums

The Sexual Health & Blood Borne Virus Program holds quarterly Sexual Health Forums at **Grace Vaughan House**, 227 Stubbs Tce, Shenton Park, from 9.00 am to 12 noon, (video conferencing available).

In 2007, they will be held on: Wednesdays 7th March; 6th June; 5th September and 5th December.

For more information call 9388 4865 or email alexa.wikins@health.wa.gov.au.



Sentinel Practitioners Network (WA)

To measure the impact of vaccines for varicella, rotavirus and influenza, a clinical practice surveillance system representative of the Western Australian (WA) population is necessary. The Sentinel Practitioner's Network of WA – SPN (WA) is a collaboration between the WA Health's Communicable Diseases Control Directorate (CDCD) and PathWest, the Australian Sentinel Practices Research Network and the Rural Clinical School of WA, established as a comprehensive general practice sentinel practice system. SPN (WA) will combine clinical surveys with relevant laboratory information to generate comprehensive data on the impact of current and future immunisation programs.

Varicella virus

All children born since May 2004 are eligible for Commonwealth funded varicella vaccine. We anticipate a significant impact on chickenpox and the spread of the wild type varicella virus in the community, which may result in a reduction in exposure of adults to the wild type virus. A theoretical consequence may be reduced opportunities for immunological boosting with a possible effect on the incidence of shingles in adults. It will also be important to monitor for the occurrence of shingles resulting from the vaccine strain through molecular typing of material collected by a simple dry swab of the shingles lesion.

Rotavirus

Two recently licensed Rotavirus vaccines are currently under consideration for Commonwealth funding. The new vaccines prevent around 80% of Rotavirus disease and are highly effective in the reduction of disease severity. Most cases will now be seen in the outpatient setting, limiting the effectiveness of hospital-based surveillance. Although the vaccines cover the more common Rotavirus serotypes, the serotype distribution may change in the future, requiring a combined clinical and laboratory surveillance system to monitor this. The specificity of the clinical diagnosis for Rotavirus is limited and testing of suspected cases is essential

to confirm the diagnosis. Molecular typing of these isolates will ensure that the serotypes occurring in WA continue to be covered by the vaccine.

Influenza virus

Every year a new influenza vaccine is released in Australia based on the circulating virus in the northern hemisphere and that of the previous season in the southern hemisphere. A general practice sentinel system is important for the early detection of introduced strains of influenza, including, potentially, avian influenza. When strictly applied, the case definition for influenza-like illness has reasonable specificity. However, it is important to combine this with laboratory information to ensure that strains are made available for laboratory typing, essential for current and future vaccine development.

Requirements for SPN (WA) participants

Complete a data collection sheet each week either electronically or via a faxed paper form, recording numbers of patients seen with and tested for chickenpox, shingles, influenza-like illness and gastroenteritis (presumed infectious). Your existing pathology provider will forward the specimens to PathWest for testing.

Positive results will be automatically notified by the laboratory as all are laboratory notifiable diseases.

Rewards for participating in SPN (WA)

Apart from contributing to a very important public health initiative, there are practice payment incentives from WA Health, as well as potential eligibility for continuing medical education points.

Summary

SPN (WA) will provide important information to help drive government decision making on vaccine preventable diseases. The CDCD and collaborating agencies are currently recruiting practices and GPs to participate in this system.

If you are interested, contact Robyn Wylie on (08) 9346 3122 or at robyn.wylie@health.wa.gov.au.

What's New in STI Clinical Management?

The Guidelines for Managing Sexually Transmitted Infections (*The Silver Book*), documenting best practice STI clinical management in Western Australia (WA) have been updated.

Changes include Gonorrhoea treatment dependent on where the infection was contracted; Hepatitis B vaccination in high risk patients; HIV risk in overseas travellers; and less invasive tests for chlamydia.

The *Guidelines* has been posted throughout WA and is available electronically at www.health.wa.gov.au/healthprotect. Contact Sue Laing, (08) 9388 4850 or email: sue.laing@health.wa.gov.au, to request a free copy of the new Guidelines.

Erratum: Please note that the divider for Section 3, *Non-notifiable Infections*, has been incorrectly labelled *Notifiable STIs*.

Table 1. Number of notifications in WA 2002 to 2006 (see overleaf for notes and descriptive comment)

Disease	Year (population)				
	2002 (1,927,322)	2003 (1,952,238)	2004 (1,982,204)	2005 (2,010,113)	2006 (2,036,443)
Enteric diseases					
Amoebiasis	12	8	7	8	5
Campylobacteriosis	2,158	1,977	1,938	2,449	1,933
Cholera	0	0	1	1	0
Cryptosporidiosis	226	438	125	182	243
Giardiasis	976	774	931	755	769
Hepatitis A	36	95	57	54	69
Hepatitis E	0	0	3	2	1
Listeriosis	13	6	9	4	13
Paratyphoid fever	5	0	13	4	1
Salmonellosis	725	615	620	798	797
Shigellosis	127	111	111	155	128
Typhoid fever	5	10	5	8	10
Verotoxigenic E. coli	4	3	0	12	3
Vibrio paraheamolyticus	6	3	3	0	3
Yersiniosis	4	2	1	2	3
Vaccine preventable diseases					
H. influenza type b	5	1	0	2	0
Influenza	544	616	187	466	212
Measles	0	0	9	1	30
Mumps	13	13	10	23	17
Pertussis	231	255	2,096	525	257
Pneumococcal infection	210	150	197	140	132
Rubella	3	3	3	6	3
Rubella (congenital)	1	0	0	0	0
Tetanus	1	0	0	0	0
Vector-borne diseases					
Arboviral encephalitis	2	0	0	0	3
Barmah Forest virus	40	22	72	84	165
Dengue fever	18	17	7	19	14
Malaria	27	56	36	85	115
Ross River virus	128	663	1,102	311	813
Schistosomiasis	64	84	94	402	272
Typhus	14	8	9	10	19
Zoonotic diseases					
Brucellosis	1	0	0	0	1
Hydatid disease	4	4	5	1	1
Leptospirosis	3	6	5	5	3
Psittacosis	6	4	0	4	4
Q fever	20	19	9	6	5
Blood-borne viral diseases					
Hepatitis B (newly acquired)	35	45	29	35	50
Hepatitis B (unspecified)*	374	406	403	392	581
Hepatitis C (newly acquired)	144	182	140	105	111
Hepatitis C (unspecified)*	1,027	1,113	1,065	998	1,071
Hepatitis D	1	1	0	2	1
Sexually transmissible infections					
Chancroid (soft sore)	0	0	0	1	0
Chlamydia (genital)	3,059	3,769	4,337	5,452	5,863
Donovanosis	2	1	1	2	0
Gonorrhoea	1,368	1,456	1,418	1,581	1,663
HIV	52	51	51	64	69
Syphilis (infectious)	54	17	50	19	47
Syphilis (non-infectious)*	134	144	157	183	141
Syphilis (congenital)	0	0	0	0	1
Other diseases					
Haemolytic Uraemic Syndrome	0	1	1	1	0
Legionellosis	54	65	50	72	94
Leprosy	2	1	0	2	2
Melioidosis	4	3	4	1	5
Meningococcal infection	67	46	40	47	21
Scarlet fever	17	24	22	7	27
Tuberculosis*	61	64	81	61	113
Total	12,087	13,352	15,514	15,549	15,907



Review of notifiable diseases, 2002-2006

Enteric diseases

Campylobacter, giardia and salmonella were the most frequently notified enteric pathogens, comprising 85% of all enteric notifications in 2006. Campylobacter notifications decreased by 20% between 2005 and 2006, while cryptosporidium notifications have almost doubled since 2004.

Over half (54%) of the enteric notifications in 2006 were received from the Kimberley region, despite it comprising only 2% of the state's population.

Rotavirus was gazetted as a notifiable disease in July 2006 to gather data for evaluating the effectiveness of an imminent national vaccination program.

Vaccine preventable diseases

Measles notifications increased in 2006 due to a national outbreak thought to have originated from infected overseas visitors travelling around Australia in March 2006, including Perth. Nearly all of the 27 outbreak cases were unimmunised or incompletely immunised, and 16 had no epidemiological link to a known measles case, demonstrating the potential for re-establishment of this highly infectious disease in Australia if herd immunity is not maintained.

Invasive pneumococcal disease notifications continued to decrease following the introduction of the childhood and adult pneumococcal vaccination programs in 2005 and 2006, respectively. Relatively few influenza cases were notified in comparison with previous years (with the exception of 2004).

Varicella-Zoster was gazetted as a notifiable disease in July 2006 to gather data for evaluating the effectiveness of the national vaccination program.

Vector-borne diseases

Barmah Forest Virus and Ross River Virus notifications increased by 2- and 2.6-fold respectively between 2005 and 2006, with 79% of Barmah Forest Virus notifications from the metropolitan and South-West regions, whereas Ross River Virus notifications were more evenly distributed across the state.

Schistosomiasis notifications, the majority of which were detected by post-arrival screening of newly-arrived African refugees, decreased by 32% between 2005 and 2006.

Zoonotic diseases

Notifications of brucellosis, hydatid disease, leptospirosis, Q fever and psittacosis have remained low and stable over the last 5 years.

Blood-borne viral diseases

Notifications of acute and carrier/unspecified Hepatitis B increased by 45% and 49%, respectively between 2005 and 2006. This increase occurred primarily among females and in people who had acquired their infection interstate or overseas. The number of hepatitis B cases acquired in WA was stable between 2005 and 2006.

Acute hepatitis C notifications have levelled since decreasing by 42% between 2003 and 2005.

Sexually Transmitted infections

Chlamydia notifications continued to increase, however the 7% increase observed between 2005 and 2006 is much smaller than the 20% average annual increase observed between 2002 and 2005.

Gonorrhoea notifications have increased steadily since 2004, with a 5% increase observed between 2005 and 2006.

The majority (67%) of chlamydia notifications were from metropolitan regions and 20% from remote regions of high STI-endemicity (i.e. Kimberley, Goldfields and Pilbara). The opposite pattern was observed for gonorrhoea, where 26% of notifications were metropolitan and 69% from the 3 STI-endemic regions.

Infectious syphilis notifications increased by 2.4-fold between 2005 and 2006 due to two outbreaks in the metropolitan area. One outbreak involved young teenagers with contact with the juvenile justice system; the other involved men who have sex with men in beats and sex-on-premises venues.

HIV notifications stabilised since a 22% increase between 2004 and 2005. Eighty-one percent of HIV notifications received in 2006 were metropolitan and 18% non-metropolitan (1% unknown location).

Other diseases

Meningococcal infection notifications decreased by 55% between 2005 and 2006. This is unlikely to be due to the national meningococcal C vaccination program as meningococcal C notifications were stable (1 notification each year in 2005 and 2006). Meningococcal B notifications, which comprised 87% of all meningococcal notifications each year in 2005 and 2006, decreased by 56%.

Tuberculosis notifications almost doubled between 2005 and 2006. Overseas-acquired infections comprised 63% of this increase and Australian-acquired infections 13%.

Notes on Tables 1 and 2

1. Data extracted from WA Notifiable Diseases Database (WANIDD) on 1st February 2007.
2. All data analysed on basis of the earliest available date reflecting date of onset of disease ("optimal date of onset" in WANIDD), with the exception of diseases marked with * which were analysed by date of receipt of notification.
3. Data for MRSA are not shown, as these are better subject to laboratory surveillance, and a high proportion of cases are detected by screening and represent carriage rather than disease.
4. HIV notifications exclude "Overseas students to WA, overseas visitors to WA, interstate residents, cases that have been previously notified with HIV/AIDS in other States/Territories and people with unknown resident status".