

NSW Laboratory Testing Data
3rd Quarterly Report January 2012 to September 2013

Notifications of positive laboratory results for notifiable conditions provide information about the number of new cases of disease. Data on the level of testing is useful to indicate whether an apparent increase in notification may be due to increased testing.

The NSW Denominator Data Project commenced in January 2012 to collect the total number of tests performed per month (the denominator data) for 10 selected notifiable conditions for which the testing rate might impact the notification rate. Data provided each month from 14 public and private laboratories in NSW is collated to give monthly aggregated data per condition. No demographic information was provided.

The positivity rate for all conditions from January 2012–September 2013 ranged from 5.52% (Chlamydia) to 0.07% (Shigellosis). Notifications for chlamydia and gonorrhoea were well correlated with testing, while incidence of enteric conditions suggests seasonal factors influence notification rates rather than testing patterns.

Trends in testing and notification are best identified by comparing similar periods to avoid seasonal variation. For the third quarter (July-September) 2013, the positivity rates overall were similar for this period in 2013 compared with the same period in 2012, and ranged from 5.24% (Chlamydia) to 0.07% (Shigellosis). Exceptions for this period were Ross river virus (up to 2.55% from 1.87% in 2012) and Pertussis (down to 1.56% from 2.66% in 2012). Pertussis has shown a generally downward trend in both notifications and positivity since 2012.

Table 1: Number and positivity (%) of tests performed for selected notifiable conditions by quarter of test

Condition	Test	Jan 2012 to Sep 2013		Quarter 3 2012		Quarter 3 2013	
		Number of tests	Positivity (%)	Number of tests	Positivity (%)	Number of tests	Positivity (%)
Chlamydia	C trachomatis nucleic acid test (NAT)	668433	5.52	93456	5.41	97032	5.24
Gonorrhoea	N gonorrhoea NAT, culture	820863	0.9	113606	0.91	121001	0.88
HIV	Serology	703608	*	96496	*	102773	*
Ross River virus infection	Serology	29402	3.33	3467	1.87	3258	2.55
Barmah Forest virus infection	Serology	22731	3.25	2721	2.13	2645	2.83
Pertussis	NAT, serology, culture	229072	3.38	44513	2.66	35464	1.56
Salmonellosis			1.66		1.22		1.16
Shigellosis	NAT, culture	329235	0.07	44481	0.06	46245	0.07
Cryptosporidiosis			0.59		0.23		0.18
Giardiasis	Antigen, microscopy	279565	1.66	38396	0.99	42098	1.12