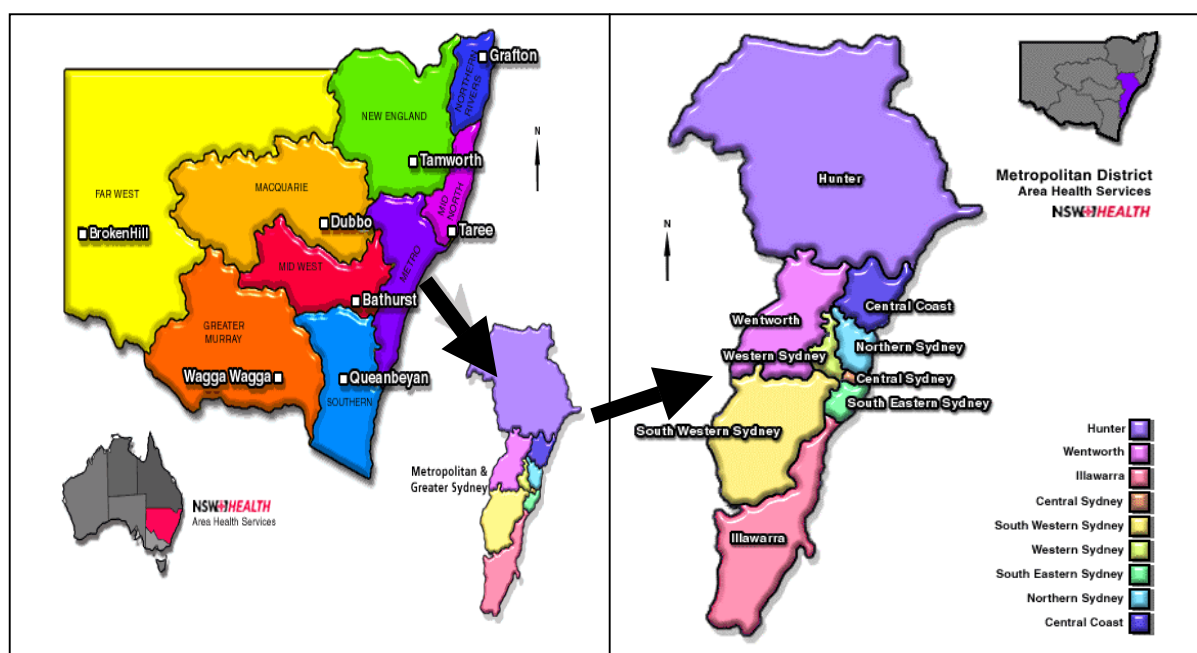


OzFoodNet Quarterly Report: Methods

This OzFoodNet report describes the epidemiology of reported enteric diseases in New South Wales (NSW) for the second quarter of 2006. The report focuses on the following enteric diseases that are notifiable in NSW; salmonellosis, listeriosis, shigellosis, haemolytic uraemic syndrome (HUS), Verotoxigenic *Escherichia coli* (VTEC) infections, typhoid and paratyphoid. Some data on cryptosporidiosis, giardiasis and hepatitis A notifications have been included in this report.

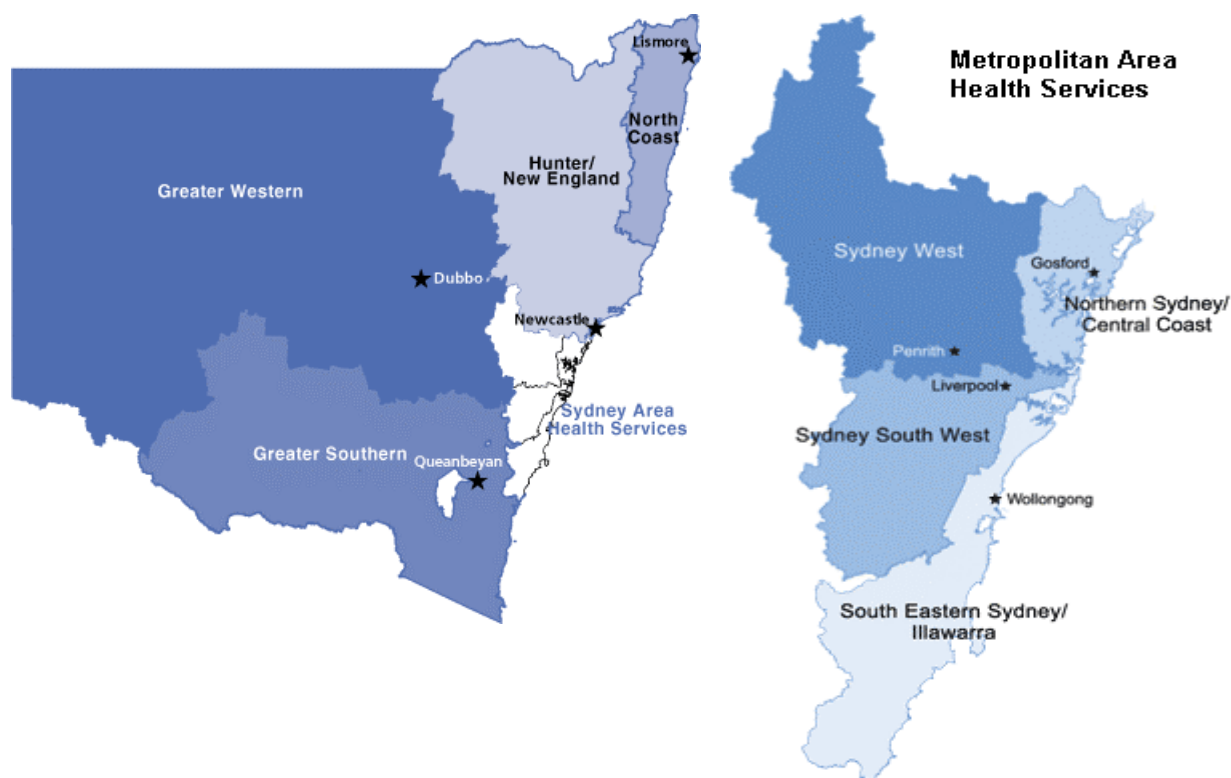
On 1 January 2005, following an organisational re-structure of NSW Health, the former seventeen NSW area health services (Figure 1) merged to form eight new area health services (Figure 2). Information on the boundaries of the new NSW area health services for 2005 can be obtained from the [NSW Health website](#) at. The data for this report were derived from disease surveillance and outbreak investigation activities undertaken by staff in seventeen Public Health Units (PHU) in each of the new eight area health services (AHS) in NSW and enteric diseases staff in the Communicable Diseases Branch (CDB) of the NSW Department of Health (NSW DOH). Analysis for this report was conducted using the former (pre 2005) and post 2005 AHS boundaries. In the first quarter of 2006, staff of the PHUs and the CDB investigated suspected food borne illness and other enteric disease outbreaks in NSW and reported outcomes to the NSW OzFoodNet site in the CDB.

Figure 1: Former (pre 2005) Area Health Services of NSW



NSW Health Department (2002b)

Figure 2: New Area Health Services in NSW in 2006



NSW Health Department (2005)

The following table describes the new areas health service names, new public health unit names and the corresponding old public health unit names.

Table 1. New AHS names and new and old PHU names

New Area Health Service Name	New Public Health Unit Name	Old Public Health Unit Name
Greater Southern AHS (GS AHS) Public Health Unit	Goulburn Office Queanbeyan Office Albury Office	Southern PHU (S PHU) Southern PHU (S PHU) Greater Murray PHU (GM PHU)
Greater Western AHS (GW AHS) Centre for Population Health	Broken Hill Office Dubbo Office Bathurst Office	Far West PHU (FW PHU) Macquarie PHU (Maq PHU) Mid West PHU (MW PHU)
Hunter / New England AHS (HNE AHS) Hunter Population Health	Newcastle Office Tamworth Office	Hunter PHU (H PHU) New England PHU (NE PHU)
North Coast AHS (NC AHS) Public Health Unit	Port Macquarie Office Lismore Office	Mid North Coast PHU (MNC PHU) Northern Rivers PHU (NR PHU)
Northern Sydney/ Central Coast AHS (NSCC AHS) Public Health Unit	Hornsby Office Gosford Office	North Sydney PHU (NS PHU) Central Coast PHU (CC PHU)
South Eastern Sydney / Illawarra AHS (SES/ILL AHS) Public Health Unit	Randwick Office Wollongong Office	South Eastern Sydney PHU (SES PHU) Illawarra PHU (ILL PHU)
Sydney South West AHS (SSW AHS) Public Health Unit	Eastern Zone (Camperdown Office) Western Zone (Liverpool Office)	Central Sydney PHU (CS PHU) South Western Sydney PHU (SWS PHU)
Sydney West AHS (SW AHS) Centre for Population Health	Penrith Office Parramatta Office	Wentworth PHU (WEN PHU) Western Sydney PHU (WS PHU)

In 2005 the estimated resident population (ERP) of NSW at 31st December 2005 was 6,839,862 up from 6,765,780 at 31st December 2004.¹ In 2001 approximately 71% of the NSW population lived in metropolitan areas, 21% lived in inner-regional areas, and 8% in outer-regional and remote areas. Categorized more broadly, approximately 78% of the NSW population live in area health services classified as urban and 22% in area health services classified as rural.² The health of the people of NSW is in part the responsibility of the NSW area health services, which function as semi-autonomous health regions.

NSW has two OzFoodNet (OFN) sites, one of which is located in the Communicable Diseases Branch (CDB) in the NSW Department of Health. This OFN site has been conducting enhanced surveillance and investigation of food borne and other enteric diseases and outbreaks since July 2002. The OFN team in the NSW DOH comprises an OFN epidemiologist and an OFN surveillance officer, who work in a team with another enteric diseases epidemiologist. The OFN site in NSW is located in the Newcastle office of Hunter New England Population Health. The site has been conducting enhanced surveillance of food borne diseases since January 1999, and investigation of outbreaks that occur within the catchment area and beyond. The Hunter New England OFN site participates in national research studies, including case-control studies for Shiga toxin-producing/Vero toxin-producing *Escherichia coli* (STEC/VTEC), *Salmonella* and *Listeria* infections. The Hunter New England OFN site comprises an OFN epidemiologist, and a part time medical epidemiologist and a researcher.

The management of suspected foodborne disease outbreaks in NSW is the shared responsibility of NSW Health and the NSW Food Authority (NSW FA). NSW Health is responsible for human health and all epidemiological aspects of outbreak investigations. The NSW FA is responsible for environmental investigation aspects of outbreak investigations, including inspection of premises, food sampling for testing and trace backs of implicated products. A Memorandum of Understanding between the NSW Department of Health and the New South Wales Food Authority, and an Investigation of Foodborne Illness Operational Procedures Manual, outline the agreements, roles and responsibilities of these agencies.

Communicable enteric disease that are notifiable in NSW

Under the NSW Public Health Act, the following enteric diseases are notifiable in NSW: salmonellosis, listeriosis, shigellosis, haemolytic uraemic syndrome (HUS), Verotoxigenic *Escherichia coli* (VTEC) infections, giardiasis, typhoid, paratyphoid, cryptosporidiosis, cholera, institutional gastroenteritis, Hepatitis A and Hepatitis E.³ Other enteric diseases such as *Campylobacter* enteritis, norovirus and yersiniosis are currently not notifiable in NSW. Laboratories report cases of enteric disease infections to PHUs and the CDB. Outbreaks of

foodborne illness and institutional gastroenteritis (not notifiable by laboratories) are reportable by doctors and institutions such as hospitals. These data are entered into the NSW Notifiable Diseases Database (NDD), from which much of the data for this report were derived.⁴

Notification of enteric disease outbreaks in NSW

In NSW PHUs are required to investigate and report in summary form any enteric disease outbreaks in their respective area health services. A foodborne disease outbreak is defined as acute onset of enteric or other symptoms caused by ingestion of infectious agents or toxins that may have been acquired by consuming contaminated food or drink, in two or more people who are linked in time and place. The NSW Health Notifiable Diseases Manual's 'Foodborne Illness outbreak Response Protocol for NSW Public Health Units', requires PHUs to notify the CDB and NSW FA within one working day of a notification of an outbreak to a PHU. Following the investigation of a foodborne disease outbreak, PHUs must complete an OzFoodNet Foodborne Illness Outbreak Summary Form in hard copy and send the report to the CDB and NSW Food Authority within one month of completion of the investigation. Data from these forms are collated by OFN staff in the CDB, entered into the NSW OFN Outbreak Summary Database, and reported here as suspected or confirmed foodborne disease outbreaks.

A case of institutional gastroenteritis is defined as a person within an institution with vomiting or diarrhoea thought to be infectious at a time when at least one other person at the institution has vomiting or diarrhoea. The NSW Health Notifiable Diseases Manual's 'Gastroenteritis in an Institution Response Protocol for NSW Public Health Units', requires PHUs to notify the CDB and NSW FA within one working day of a notification, of two or more probable or confirmed cases in an institution. Following the investigation of institutional gastroenteritis, PHUs must complete Gastroenteritis in Institutions Summary Form in hard copy and send the report to the CDB within one month of completion of the investigation. Data from these forms are collated by OFN staff in the CDB, entered into the NSW Gastroenteritis in Institutions database, and reported here as non-foodborne disease outbreaks.

When an enteric disease outbreak investigation is of unknown origin, of non-foodborne origin (e.g., animal to person, environment to person), or is a person-to-person outbreak not in an institutional setting, PHU staff enters outbreak data on an OzFoodNet Foodborne Illness Outbreak Summary Form and send the report to the CDB within 1 month of completion of the investigation. Data from these forms are collated by OFN staff in the CDB, entered into the NSW OFN Outbreak Summary Database, and reported here as non-foodborne disease outbreaks.

Data sources for this report

Data for this report were derived from the NSW Notifiable Diseases Database (NDD) which contains information on single, notified cases of disease, the NSW OFN outbreak summary database and the NSW Gastroenteritis in Institutions database.

Other information such as anecdotal information on investigations of clusters of people with enteric disease with no identified common food vehicle or other exposure were derived from the NSW OzFoodNet cluster reports for the first quarter of 2006, investigation reports of the NSW Food Authority, anecdotal correspondence from PHUs. Cluster investigations reported here are likely to be an under-representation of the true number of cluster investigations conducted in NSW in the second quarter of 2006.