

### Human diseases

The Australian Government Department of Health (Health), through the Office of Health Protection and Response, has overall responsibility for national communicable disease surveillance. State and territory health departments collect notifications of communicable diseases from doctors, hospitals and/or laboratories under their public health legislation.

In September 2007, the *National Health Security Act 2007* received Royal Assent. This Act provides a legislative basis for, and authorises the exchange of information, including personal information, between states and territories and the Australian Government. The Act provides for the establishment of the National Notifiable Diseases List (NNDL), which specifies the diseases about which personal information can be provided. There are approximately 60 diseases on the NNDL which can be found at: <http://www.health.gov.au/casedefinitions>. The *National Health Security Agreement*, which was drafted in 2007 and signed by Health Ministers in 2008, establishes operational arrangements to formalise and enhance existing surveillance and reporting systems. Under the Agreement states and territories forward de-identified data on the nationally agreed set of communicable diseases to the Department's National Notifiable Diseases System database at [http://www9.health.gov.au/cda/source/rpt\\_2\\_sel.cfm](http://www9.health.gov.au/cda/source/rpt_2_sel.cfm) for the purposes of national communicable disease surveillance. HIV and CJD are reported through different mechanisms.

Further information is collected from other national, jurisdictional and sentinel surveillance systems to supplement notifications data for some diseases. This includes data on syndromes, severity, strains and risk factors.

The Department of Health is responsible for timely and accurate intelligence-gathering and the analysis and reporting of communicable diseases data, for both current and emerging diseases. The Department also coordinates the provision of fortnightly summary reports through the Communicable Diseases Network Australia (CDNA), which can be found at <http://www.health.gov.au/cdnareport>. Quarterly data summaries and annual reports are published in *Communicable Diseases Intelligence* which is published on the department's website at <http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-pubs-cdi-cdiintro.htm>.

The Department of Health also manages the OzFoodNet network. OzFoodNet is a collaborative initiative with States and Territories to detect and investigate outbreaks of foodborne and potentially foodborne disease, to provide better understanding of the causes and incidence of foodborne disease in the community, and to provide an evidence base for policy formulation. OzFoodNet reports on a fortnightly basis to CDNA and quarterly and annual reports are published in *Communicable Diseases Intelligence*.

CDNA provides national public health co-ordination on communicable disease surveillance, prevention and control. It offers strategic advice to governments and other key bodies on public health actions to minimise the impact of communicable diseases in Australia and the region. Its members include representatives from the Australian commonwealth, state and territory governments, New Zealand, key organisations in the communicable diseases field, and others with relevant expertise. CDNA holds fortnightly teleconferences to share and evaluate the latest information and developments in communicable diseases surveillance and enables commonwealth and state health authorities to cooperate in taking prompt action to control outbreaks. CDNA also meets face-to-face three times per year.

The Public Health Laboratory Network (PHLN) is a collaborative group of laboratories, which have expertise and provide services in public health microbiology. PHLN's vision is to be an action-oriented national public health microbiology network, providing advice and services that add value and form a foundation of the broader Australian public health system. The central purpose and role of PHLN is defined as the provision of leadership and consultation in all aspects of public health microbiology and communicable disease control. This is achieved through the continued development of a proactive network of public health laboratories to protect and improve the health of people of Australia.

PHLN is comprised of state and territory, expert, national and observer members. Each Australian state or territory is represented on PHLN from one or two organisations, as appropriate. Larger organisations with separate bacteriology and virology expertise may nominate a representative from each. National members include representatives from the Australian Centre for Disease Preparedness (ACDP) and CDNA. There is an expert member from the World Health Organization (WHO) Collaborating Centre for Reference and Research

on Influenza. Observer members include representatives from Private Pathology, Forensic and Technical Intelligence - Australian Federal Police and New Zealand Jurisdictions.

### Number of notifications of communicable diseases in humans reported to the National Notifiable Diseases Surveillance System, 2017 to YTD 2021\*

Disease	2017	2018	2019	2020	YTD 2021 <sup>#</sup>
<b>Bloodborne diseases</b>					
Hepatitis B (newly acquired)	146	137	165	120	57
Hepatitis B (unspecified)	5,863	5,844	5,665	5,017	2,854
Hepatitis C (newly acquired)	621	614	795	675	428
Hepatitis C (unspecified)	9,860	9,748	8,415	7,376	4,385
Hepatitis D	65	79	68	70	47
<b>Gastrointestinal diseases</b>					
Botulism	2	-	2	1	2
Campylobacteriosis	28,699	33,143	36,135	31,951	22,074
Cholera	2	-	2	-	-
Cryptosporidiosis	4,694	3,011	2,679	2,442	1,200
Haemolytic uraemic syndrome (HUS)	14	13	19	14	3
Hepatitis A	217	434	246	85	20
Hepatitis E	48	39	55	31	10
Listeriosis	71	73	52	44	26
Paratyphoid	68	81	116	38	3
Shiga Toxin-producing E. Coli (STEC)	497	563	656	571	335
Salmonellosis	16,372	14,146	14,675	12,030	7,027
Shigellosis	1,749	2,508	3,152	1,602	278
Typhoid Fever	144	176	202	88	8
<b>Listed human diseases</b>					
COVID-19 <sup>^</sup>	-	-	-	28,648	9,654
Highly pathogenic avian influenza (human)	-	-	-	-	-
Plague	-	-	-	-	-
Severe Acute Respiratory Syndrome (SARS)	-	-	-	-	-
Smallpox	-	-	-	-	-
Viral haemorrhagic fever (NEC)	-	-	-	-	-
Yellow fever	-	-	-	-	-
<b>Sexually transmissible infections</b>					
Chlamydial infection	101,221	104,788	107,333	91,296	50,573
Donovanosis	-	-	-	-	-
Gonococcal infection	28,362	30,845	33,932	29,211	16,754
Syphilis - congenital	8	8	6	19	8

Disease	2017	2018	2019	2020	YTD 2021 <sup>#</sup>
Syphilis – less than 2 years duration	4,413	5,080	5,878	5,326	3,339
Syphilis – greater than 2 years or unspecified duration	2,014	2,279	2,536	2,078	1,082
<b>Vaccine preventable diseases</b>					
Diphtheria	8	11	7	9	5
Haemophilus influenzae type b	16	18	22	19	13
Influenza (laboratory confirmed)	251,262	58,868	313,457	21,353	450
Measles	81	103	284	25	-
Meningococcal disease – invasive	380	281	207	90	44
Mumps	812	634	172	151	12
Pertussis	12,237	12,581	12,024	3,458	349
Pneumococcal disease – invasive	2,049	2,028	2,129	1,115	876
Rubella	10	9	20	3	1
Rubella – congenital	-	-	-	-	-
Tetanus	4	3	3	7	1
Varicella zoster infection – Chickenpox	3,172	4,600	4,414	2,886	1,244
Varicella zoster infection – Shingles	9,249	14,132	15,171	16,016	6,408
Varicella zoster infection – Unspecified	15,722	12,862	13,132	12,541	11,778
<b>Vector-borne diseases</b>					
Flavivirus infection (unspecified)	17	8	10	13	3
Barmah Forest virus infection	448	344	252	741	256
Chikungunya virus infection	99	41	85	32	1
Dengue virus infection	1,135	932	1,466	222	1
Japanese encephalitis virus infection	1	-	3	1	1
West Nile/Kunjin virus infection	5	-	2	-	-
Malaria	364	408	381	156	27
Murray Valley encephalitis virus infection	-	-	-	1	-
Ross River virus infection	6,921	3,140	2,988	6,379	2,528
<b>Zoonoses</b>					
Anthrax	-	-	-	-	-
Australian bat lyssavirus	-	-	-	-	-
Brucellosis	19	28	9	18	10
Leptospirosis	146	142	82	95	198
Lyssavirus (NEC)	-	-	-	-	-

Disease	2017	2018	2019	2020	YTD 2021 <sup>#</sup>
Ornithosis (otherwise known as Psittacosis)	21	9	23	65	12
Q fever	478	515	568	449	308
Tularaemia	-	-	-	2	-
<b>Other notifiable diseases</b>					
Invasive Group A streptococcal <sup>@</sup>	-	-	-	-	60
Legionellosis	385	448	439	526	313
Leprosy	10	6	10	6	5
Meningococcal disease – invasive	380	281	207	90	44
Respiratory syncytial virus <sup>@</sup>	-	-	-	-	226
Tuberculosis	1,437	1,439	1,512	1,609	903

Notes:

NEC – not elsewhere classified

\*The data provided were extracted from the National Notifiable Diseases Surveillance System (NNDSS) on 14 August 2021. Due to the dynamic nature of the NNDSS, data in this extract are subject to retrospective revision and may vary from data reported in published NNDSS reports and reports of notification data by states and territories.

<sup>#</sup> Year to date from 1 January to 13 August 2021.

<sup>^</sup> COVID-19 became notifiable in 2020.

<sup>@</sup> Invasive Group A streptococcal and respiratory syncytial virus became notifiable on 1 July 2021.