

Annex I

Revised forms for the submission of the Confidence-Building Measures

At the Third Review Conference it was agreed that all States Parties present the following declaration, later amended by the Seventh Review Conference:

Declaration form on Nothing to Declare or Nothing New to Declare for use in the information exchange

Measure	Nothing to declare	Nothing new to declare	Year of last declaration if nothing new to declare
A, part 1	<input type="checkbox"/>	Nothing new to declare	2018
A, part 2 (i)	<input type="checkbox"/>	Nothing new to declare	2018
A, part 2 (ii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A, part 2 (iii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	<input type="checkbox"/>	Nothing new to declare*	2018
C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F	<input type="checkbox"/>	Nothing new to declare	2018
G	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Additional information is provided in Attachments 3.1, 3.2 and 3.3

Date: 15 April 2019

State Party to the Convention: Australia

Date of ratification/accession to the Convention: Signed 10 April 1972 and ratified 5 October 1977

National point of contact: International Security Division, Department of Foreign Affairs and Trade

Active promotion of contacts

The Third Review Conference agreed that States Parties continue to implement the following:

"Active promotion of contacts between scientists, other experts and facilities engaged in biological research directly related to the Convention, including exchanges and visits for joint research on a mutually agreed basis."

In order to actively promote professional contacts between scientists, joint research projects and other activities aimed at preventing or reducing the occurrence of ambiguities, doubts and suspicions and at improving international cooperation in the field of peaceful bacteriological (biological) activities, the Seventh Review Conference encouraged States Parties to share forward looking information, to the extent possible,

- on planned international conferences, seminars, symposia and similar events dealing with biological research directly related to the Convention, and
- on other opportunities for exchange of scientists, joint research or other measures to promote contacts between scientists engaged in biological research directly related to the Convention, including through the Implementation Support Unit (ISU) within the United Nations Office for Disarmament Affairs.

Confidence-Building Measure "A"

Part 1 Exchange of data on research centres and laboratories

At the Third Review Conference it was agreed that States Parties continue to implement the following:

"Exchange of data, including name, location, scope and general description of activities, on research centres and laboratories that meet very high national or international safety standards established for handling, for permitted purposes, biological materials that pose a high individual and community risk or specialize in permitted biological activities directly related to the Convention."

Modalities

The Third Review Conference agreed on the following, later amended by the Seventh Review Conference:

Data should be provided by States Parties on each facility, within their territory or under their jurisdiction or control anywhere, which has any maximum containment laboratories meeting those criteria for such maximum containment laboratories as specified in the latest edition of the WHO¹ Laboratory Biosafety Manual and/or OIE² Terrestrial Manual or other equivalent guidelines adopted by relevant international organisations, such as those designated as biosafety level 4 (BL4, BSL4 or P4) or equivalent standards.

States Parties that do not possess a facility meeting criteria for such maximum containment should continue to Form A, part 1 (ii).

Form A, part 1 (i)

*Exchange of data on research centres and laboratories*³

Australia's submission regarding questions 1-7 of Form A part 1 (i) follows in **Attachment 1**.

1. Name(s) of facility⁴

2. Responsible _____ public _____ or _____ private

organization or company _____

3. Location and postal address

¹ World Health Organization

² World Organization for Animal Health

³ The containment units which are fixed patient treatment modules, integrated with laboratories, should be identified separately.

⁴ For facilities with maximum containment units participating in the national biological defence research and development programme, please fill in name of facility and mark "Declared in accordance with Form A, part 2 (iii)".

4. Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence

5. Number of maximum containment units⁵ within the research centre and/or laboratory, with an indication of their respective size (m²)

6. Scope and general description of activities, including type(s) of micro-organisms and/or toxins as appropriate

⁵ In accordance with the latest edition of the WHO Laboratory Biosafety Manual, or equivalent.

Attachment 1.1

Background Information

Australia has four maximum containment units which meet the criteria for a “maximum containment laboratory” as specified in the latest edition of the WHO Laboratory Biosafety Manual.

They are:

- The Australian Animal Health Laboratory (**Attachment 1.2**)
- The National High Security Quarantine Laboratory (**Attachment 1.3**)
- The Queensland Health Forensic and Scientific Services Virology Laboratory (**Attachment 1.4**)
- The Emerging Infections and Biohazard Response Unit (**Attachment 1.5**)

Data on these facilities relating to questions 1 to 7 of Form A, Part 1 is attached.

1. Name of facility

Australian Animal Health Laboratory (AAHL)

2. Responsible public or private organisation/company

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) (Commonwealth Government) and the Australian Government Department of Agriculture and Water Resources (Commonwealth Government). AAHL is managed by the CSIRO. Note: Australia has a two-tiered system of Government, with the Commonwealth Government, in collaboration with the six State and two Territory Governments, responsible for the formulation and implementation of national government policy.

3. Location and postal address

Location	Postal address
5 Portarlington Road East Geelong, VIC 3219 AUSTRALIA	PMB Bag 24 Geelong VIC 3220 AUSTRALIA

4. Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence

This facility receives no funding from the Australian Department of Defence. AAHL is funded by the Australian Government, via CSIRO and the Department of Agriculture and Water Resources. It is also funded by other government agencies, industry organisations and commercial companies for specific research and development programs and projects.

5. Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m²)

There are four maximum containment (BSL/PC4) facilities. A laboratory of 90 m², two animal facilities of 127m² combined and a combined laboratory/animal facility/insectary of 350m².

6. If no maximum containment unit, indicate highest level of protection

N/A

7. Scope and general description of activities, including type(s) of microorganisms and/or toxins as appropriate.

AAHL plays a vital role in maintaining and improving Australia's capability for timely diagnosis of new and emerging (terrestrial and aquatic) animal diseases, including exotic (foreign) and zoonotic diseases. This is achieved through a dedicated team providing routine and emergency diagnostic services and ongoing research programs to develop or improve diagnostic tests, which are critical to the success of any eradication and/or control campaign in the event of a disease outbreak.

AAHL also undertakes research on new and emerging diseases to better understand the disease process and drivers for their emergence and to develop new diagnostic tests and intervention methods, including vaccines and treatments, for animal diseases of national importance. AAHL is equipped with maximum biocontainment facilities that allow it to securely and safely undertake the above-mentioned diagnostic and research activities for animal diseases of national and international significance.

The laboratory is a World Organisation for Animal Health (OIE) reference laboratory for avian influenza, Newcastle disease, bluetongue, Hendra and Nipah virus infection, Abalone Herpes-like virus infection, ranavirus infection, and epizootic haematopoietic necrosis virus infection. AAHL is also:

- an OIE Collaborating Centre for New and Emerging Diseases, for Laboratory Capacity Building and for Diagnostic Test Validation Science in the Asia-Pacific Region;
- a Food and Agriculture Organization (FAO) Collaborating Centre for Animal Influenza, Newcastle Disease and Laboratory Biological Risk Management;
- a World Health Organization (WHO) Collaborating Centre for Severe Acute Respiratory Syndrome (SARS);
- and a national reference laboratory for rabies and *Brucella spp.*

1. Name of facility

National High Security Quarantine Laboratory (NHSQL)

2. Responsible public or private organisation/company:

Department of Health (Commonwealth Government), Victorian Department of Human Services (State Government).

3. Location and postal address:

Location	Postal address
Victorian Infectious Diseases Reference Laboratory 792 Elizabeth Street Melbourne VIC 3000 AUSTRALIA	National High Security Quarantine Laboratory c/o VIDRL Locked Bag 815 Carlton South VIC 3053 AUSTRALIA

4. Source(s) of financing, of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence

This facility receives no funding from the Australian Department of Defence. It receives funding from the Commonwealth and State Departments of Health.

5. Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m²)

One high security laboratory (positive pressure suit laboratory). Total area 90m².

6. If no maximum containment unit, indicate highest level of protection

N/A

7. Scope and general description of activities, including type(s) of micro-organism and/or toxins as appropriate

The diagnosis of possible imported cases of viral haemorrhagic fever or other quarantinable diseases that present a significant danger to the Australian community and the development of laboratory tests and protocols for exotic respiratory viral diseases, including *influenzavirus* A/H5N1 ('bird flu') and SARS. In addition, VIDRL has established and maintained the capability to perform diagnostic testing for the *variola virus*.

1. Name of facility

Queensland Health Forensic Scientific Services (QHFSS).

2. Responsible public or private organisation/company:

Queensland Department of Health (State Government).

3. Location and postal address:

Location	Postal address
39 Kessels Road Coopers Plains QLD 4108 AUSTRALIA	PO Box 594 Archerfield QLD 4108 AUSTRALIA

4. Source(s) of financing, of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence

This facility receives no funding from the Australian Department of Defence. It receives funding from Queensland Department of Health.

5. Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m2)

Two. Total area 150m².

If no maximum containment unit, indicate highest level of protection

N/A.

7. Scope and general description of activities, including type(s) of micro-organism and/or toxins as appropriate

The maximum containment facility at QHFSS, a state government public health virology laboratory, has both a diagnostic and a research function. The maximum containment facilities are used for the development and performance of diagnostic tests on patients with suspected exotic or endemic viral illness. This includes Henipah viruses or exotic haemorrhagic fever viruses. The only PC4 level pathogen that the laboratory has is Hendra virus, which is used for diagnostic purposes. The laboratory maintains the capacity to perform diagnostic testing for a number of exotic viral diseases including Ebola, Marburg, Lassa, Junin, Rift Valley fevers and Hantavirus among others. The reagents utilised for these purposes may consist of either inactivated diagnostic reagents, cloned viral subunits or live virus.

- 1. Name(s) of facility**

Emerging Infections and Biohazard Response Unit (EIBRU).
- 2. Responsible public or private organization or company**

Institute for Clinical Pathology and Medical Research, Pathology West, NSW Health Pathology.
- 3. Location and postal address**

Centre for Infectious Diseases and Microbiology
Laboratory Services (CIDMLS)
3/F, ICPMR Building
Institute Road.
Westmead Hospital
Westmead NSW 2145
- 4. Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence**

This facility receives no funding from the Australian Department of Defence. It is funded by New South Wales Department of Health.
- 5. Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m²)**

One maximum containment PC4 unit—Laboratory work area 85.5m².
- 6. If no maximum containment unit, indicate highest level of protection**

N/A
- 7. Scope and general description of activities, including type(s) of microorganisms and/or toxins as appropriate**

Laboratory investigation of human specimens or substances suspected of containing an exotic agent, emerging infectious disease or bioterrorism agent such as pandemic influenza, anthrax, ricin toxin, Brucella and botulinum toxin for the state of New South Wales.

Form A, part 1 (ii)

If no BSL4 facility is declared in Form A, part 1 (i), indicate the highest biosafety level implemented in facilities handling biological agents⁶ on a State Party's territory:

Not applicable. Australia has declared maximum containment facilities in Form A, part 1 (i).

Biosafety level 3 ⁷	yes / no
Biosafety level 2 ⁸ (if applicable)	yes / no

Any additional relevant information as appropriate:

⁶ Microorganisms pathogenic to humans and/or animals

⁷ In accordance with the latest edition of the WHO Laboratory Biosafety Manual and/or the OIE Terrestrial Manual or other equivalent internationally accepted guidelines.

⁸ In accordance with the latest edition of the WHO Laboratory Biosafety Manual and/or the OIE Terrestrial Manual or other equivalent internationally accepted guidelines.

Part 2 Exchange of information on national biological defence research and development programmes

At the Third Review Conference it was agreed that States Parties are to implement the following:

In the interest of increasing the transparency of national research and development programmes on biological defence, the States Parties will declare whether or not they conduct such programmes. States Parties agreed to provide, annually, detailed information on their biological defence research and development programmes including summaries of the objectives and costs of effort performed by contractors and in other facilities. If no biological defence research and development programme is being conducted, a null report will be provided.

States Parties will make declarations in accordance with the attached forms, which require the following information:

- (1) The objective and summary of the research and development activities underway indicating whether work is conducted in the following areas: prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination and other related research;
- (2) Whether contractor or other non-defence facilities are utilised and the total funding provided to that portion of the programme;
- (3) The organisational structure of the programme and its reporting relationships; and
- (4) The following information concerning the defence and other governmental facilities in which the biological defence research and development programme is concentrated;
 - (a) location;
 - (b) the floor areas (sqM) of the facilities including that dedicated to each of BL2, BL3 and BL4 level laboratories;
 - (c) the total number of staff employed, including those contracted full time for more than six months;
 - (d) numbers of staff reported in (c) by the following categories: civilian, military, scientists, technicians, engineers, support and administrative staff;
 - (e) a list of the scientific disciplines of the scientific/engineering staff;
 - (f) the source and funding levels in the following three areas: research, development, and test and evaluation; and
 - (g) the policy regarding publication and a list of publicly-available papers and reports.

Form A, part 2 (i)

National biological defence research and development programmes Declaration

Are there any national programmes to conduct biological defence research and development within the territory of the State Party, under its jurisdiction or control anywhere? Activities of such programmes would include prophylaxis, studies on

pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination and other related research.

Yes. The Defence Science and Technology (DST) Group, Department of Defence, has a science and technology program which conducts biological defence research, as detailed in the attached (see Form A, part 2 (ii)).

If the answer is Yes, complete Form A, part 2 (ii) which will provide a description of each programme.

Form A, part 2 (ii)

National biological defence research and development programmes

Description

1. State the objectives and funding of each programme and summarize the principal research and development activities conducted in the programme. Areas to be addressed shall include: prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination and other related research.

The objective of the program is to provide the Australian Government with an appropriate understanding of the issues pertinent to protection against biological weapons. The program contributes to Defence support of civil authorities in the management of biological threats to the community. The program also assists in the provision of a defensive capability for the Australian Defence Force (ADF) by enhancing the ability of the ADF to operate in parts of the world where biological weapons might be used. It also enhances Australia's ability to contribute to biological arms control measures. The principal research activities are concerned with the detection, diagnosis and characterisation of biological species that have been identified as potential biological warfare agents. In addition, evaluations are performed into the cellular responses to those agents and candidate medical counter-measures. The program also covers toxins that are considered threats in terms of both the Biological and Chemical Weapons Conventions.

2. State the total funding for each programme and its source.

The program is funded solely by the Australian Department of Defence, with a funding allocation for the calendar year (1 January – 31 December 2017) of approximately AUD\$3 000 000.

3. Are aspects of these programmes conducted under contract with industry, academic institutions, or in other non-defence facilities?

Yes. Work is contracted to non-defence facilities.

4. If yes, what proportion of the total funds for each programme is expended in these contracted or other facilities?

For the calendar year 2018, the following payments were made:

- AUD\$24,965 to University of Queensland
- AUD\$10,000 to Adelaide University.

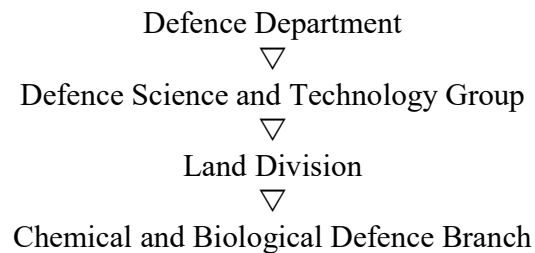
5. Summarize the objectives and research areas of each programme performed by contractors and in other facilities with the funds identified under paragraph 4.

The University of Queensland has been contracted to provide Hollow Fibre Infection Model training to support a programme assessing alternative therapies for microbiological disease.

The University of Adelaide has been contracted to evaluate new anti-anthrax therapeutics that target the biotin protein ligase enzyme.

6. Provide a diagram of the organizational structure of each programme and the reporting relationships (include individual facilities participating in the programme).

The organisational structure is as follows. There is a single active research cell operating within the Department of Defence within the hierarchy represented below.



7. Provide a declaration in accordance with Form A, part 2 (iii) for each facility, both governmental and non-governmental, which has a substantial proportion of its resources devoted to each national biological defence research and development programme, within the territory of the reporting State, or under its jurisdiction or control anywhere.

See Form A, Part 2(iii) and the associated attachment (**Attachment 2**) for Australia's response.

Form A, part 2 (iii)

National biological defence research and development programmes

Facilities

Complete a form for each facility declared in accordance with paragraph 7 in Form A, part 2 (ii).

In shared facilities, provide the following information for the biological defence research and development portion only.

Australia's submission of Form A, Part 2 (iii) is at **Attachment 2**.

1. What is the name of the facility?
2. Where is it located (include both address and geographical location)?

3. Floor area of laboratory areas by containment level:
BL2 _____ (sqM)
BL3 _____ (sqM)
BL4 _____ (sqM)
Total laboratory floor area _____ (sqM)

4. The organizational structure of each facility.
(i) Total number of personnel _____
(ii) Division of personnel:
Military _____
Civilian _____
(iii) Division of personnel by category:
Scientists _____
Engineers _____
Technicians _____
Administrative and support staff _____

(iv) List the scientific disciplines represented in the scientific/engineering staff.

(v) Are contractor staff working in the facility? If so, provide an approximate number.

(vi) What is (are) the source(s) of funding for the work conducted in the facility, including indication if activity is wholly or partly financed by the Ministry of Defence?

(vii) What are the funding levels for the following programme areas:
Research _____
Development _____
Test and evaluation _____

(viii) Briefly describe the publication policy of the facility:

(ix) Provide a list of publicly-available papers and reports resulting from the work published during the previous 12 months. (To include authors, titles and full references.)

5. Briefly describe the biological defence work carried out at the facility, including type(s) of micro-organisms⁹ and/or toxins studied, as well as outdoor studies of biological aerosols.

⁹ Including viruses and prions.

National biological defence research and development programme**Facilities**

Australia has one facility that meets the criteria of paragraph 7 in Form A, part 2 (ii).

1. Name

Biological Defence Research, Land Division, Defence Science and Technology Group.

2. Location

Location	Postal address
506 Lorimer Street Fishermans Bend VIC AUSTRALIA	Platforms Sciences Laboratory (PSL) 506 Lorimer Street Fishermans Bend VIC AUSTRALIA

3. Floor Area	BL2	150 square metres
	BL3	60
	BL4	nil

4. Personnel

- (i) There were 25 personnel working in the areas of biological defence and arms control programs in 2018.
- (ii) All personnel are civilian.
- (iii) The personnel comprise 24 scientists and the full-time equivalent of one shared administrative/support person.
- (iv) Scientific disciplines represented are biochemistry, molecular biology, microbiology, immunology, chemistry, pharmacology, bioinformatics, mathematics and physics.
- (v) There was one contracted staff member working on this program at the facility.
- (vi) Research is currently wholly financed by the Department of Defence.
- (vii) Research is funded at approximately AUD\$3 000 000 per annum.
- (viii) Publication in scientific journals is encouraged, as it is a mechanism for staff to maintain their professional status.
- (ix) Relevant publications are listed in Form C.

5. Description of Biological Defence Work

Various types of work are undertaken, as outlined in the following sections:

(1) Detection of biological entities recognised as potential biological warfare agents

Immunological, bacteriophage, volatile organic compound detection and DNA-based techniques for rapid identification of BWA (Biological Warfare Agents) are being developed/assessed.

Current research focuses on the evaluation of platforms and reagents that enable rapid identification and characterisation of bacterial, viral and toxin agents, including microbial antibiotic resistance and genetically manipulated bacteria.

(2) Development of health monitoring systems for BWA

A virology program aims to detect past or recent exposure of ADF personnel to known or poorly characterised endemic viruses, particular to Australia and the region such as Ross River Virus, Murray Valley Encephalitis Virus, bunya–viruses, rhabdo–viruses, Japanese encephalitis, dengue and filoviruses.

(3) Physical methods for rapid detection of bio-aerosols

Methods of particle characterisation for provision of rapid warning of a bio-aerosol are being assessed.

(4) Protection/Treatment/Toxicology

Neutralization and cytotoxicity assays have been developed to assess the usefulness of potential therapeutic agents such as antibodies and antimicrobial peptides. Platforms for the amplification of antibody avidity, such as self-assembling gels, are also being investigated.

Data mining and bioinformatics have been used to identify key virulence factors that are present in multiple bacterial pathogens including the intracellular bacterium *Coxiella burnetii* which causes the disease Q fever in humans. Some of these virulence factors have been evaluated as the targets for drug development. In addition, an *in-house* capability to grow *C. burnetii* in a host-cell free environment has been developed to facilitate further studies into enhanced medical counter-measures against this bacterium.

Human and mouse lung cells have been used as a test bed for examining potential therapeutic compounds against toxin agents. Compounds for treatment of ricin intoxication are currently being examined.

A program of work developing Good Laboratory Practice (GLP) manufacturing processes for medical counter-measures has been completed with Monash University and Defence Research and Development Canada (DRDC). National Association of Testing Authorities (NATA) accreditation of this facility has been delayed and is not expected until April 2019.

(5) Detection of biological toxins using physico-chemical methods

Studies on detection of biological material using mass spectrometry and other physico-chemical methods are being conducted to determine their utility for field detection of biological toxins and BWC verification procedures. This work has included the analysis of ricin and crude extracts of ricin by matrix-assisted laser desorption/ionization (MALDI) and fourier transform ion cyclotron resonance (FT-ICR) mass spectrometry.

(6) Hollow-Fibre Infection model (HFIM) evaluation of therapeutics

DST is evaluating the use of the HFIM to predict bacterial responses to current, repurposed or novel therapeutics. The outcomes of this treatment (which will occur over a period of time) will act as a preliminary screening method to be used before clinical or animal trials.

(7) Strengthening the Biological Weapons Convention (BWC)

A number of BWC/Biosecurity Regional Workshops have been convened and/or supported by Australia since 2005, with scientific and technical support provided by DST Group. The objectives of these workshops have been to assist BWC States Parties in the Asia-Pacific region to become more engaged in the work of the BWC in Geneva. In doing so the workshops reduce the possibility of bioterrorism in the region, and/or avoid the inadvertent assistance by states in the region to biological weapons programs being developed elsewhere. This outreach process has also led to regional countries conducting their own specialised workshops on biosafety and biosecurity. No workshops were conducted in 2018, however DST were participants in the 2018 OPCW confidence building exercise for the detection/analysis of ricin in complex samples.

Confidence-Building Measure "B"

Exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins

At the Third Review Conference it was agreed that States Parties continue to implement the following:

Exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins, and on all such events that seem to deviate from the normal pattern as regards type, development, place, or time of occurrence. The information provided on events that deviate from the norm will include, as soon as it is available, data on the type of disease, approximate area affected, and number of cases.

The Seventh Review Conference agreed the following:

No universal standards exist for what might constitute a deviation from the normal pattern.

Modalities

The Third Review Conference agreed on the following, later amended by the Seventh Review Conference:

1. Exchange of data on outbreaks that seem to deviate from the normal pattern is considered particularly important in the following cases:
 - When the cause of the outbreak cannot be readily determined or the causative agent¹⁰ is difficult to diagnose,
 - When the disease may be caused by organisms which meet the criteria for risk groups III or IV, according to the classification in the latest edition of the WHO Laboratory Biosafety Manual,
 - When the causative agent is exotic to a given geographical region,
 - When the disease follows an unusual pattern of development,
 - When the disease occurs in the vicinity of research centres and laboratories subject to exchange of data under item A,
 - When suspicions arise of the possible occurrence of a new disease.
2. In order to enhance confidence, an initial report of an outbreak of an infectious disease or a similar occurrence that seems to deviate from the normal pattern should be given promptly after cognizance of the outbreak and should be followed up by annual reports. To enable States Parties to follow a standardized procedure, the Conference has agreed that Form B should be used, to the extent information is known and/or applicable, for the exchange of annual information.
3. The declaration of electronic links to national websites or to websites of international, regional or other organizations which provide information on disease outbreaks (notably outbreaks of infectious diseases and similar occurrences caused by

¹⁰ It is understood that this may include organisms made pathogenic by molecular biology techniques, such as genetic engineering.

toxins that seem to deviate from the normal pattern) may also satisfy the declaration requirement under Form B.

4. In order to improve international cooperation in the field of peaceful bacteriological (biological) activities and in order to prevent or reduce the occurrence of ambiguities, doubts and suspicions, States Parties are encouraged to invite experts from other States Parties to assist in the handling of an outbreak, and to respond favourably to such invitations, respecting applicable national legislation and relevant international instruments.

Form B

Information on outbreaks of infectious diseases and similar occurrences, that seem to deviate from the normal pattern¹¹

In 2018 Australia had no outbreaks of infectious diseases or similar occurrences caused by toxins that seemed to deviate from the normal pattern. However, the following **Attachments 3.1, 3.2 and 3.3** provide information on outbreaks of infectious disease and similar occurrences in humans, animals and plants.

1. Time of cognizance of the outbreak

2. Location and approximate area affected

3. Type of disease/intoxication

4. Suspected source of disease/intoxication

5. Possible causative agent(s)

6. Main characteristics of systems

7. Detailed symptoms, when applicable

- respiratory

- circulatory

- neurological/behavioural

- intestinal

- dermatological

- nephrological

- other

8. Deviation(s) from the normal pattern as regards
- type

- development

¹¹ See paragraph 2 of the chapeau to Confidence-Building Measure B.

- place of occurrence

- time of occurrence

- symptoms

- virulence pattern

- drug resistance pattern

- agent(s) difficult to diagnose

- presence of unusual vectors

- other

- 9. Approximate number of primary cases

- 10. Approximate number of total cases

- 11. Number of deaths

- 12. Development of the outbreak

- 13. Measures taken

Human diseases

The Australian Government Department of Health (Health), through the Office of Health Protection, 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 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 Animal Health Laboratory (AAHL) 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, 2014 to 2018*

Disease	2014	2015	2016	2017	2018
Bloodborne diseases					
Hepatitis (NEC)	-	-	-	-	-
Hepatitis B (newly acquired)	168	142	160	143	132
Hepatitis B (unspecified)	6,366	6,256	6,319	5,942	5,902
Hepatitis C (newly acquired)	709	820	740	616	581
Hepatitis C (unspecified)	9,646	9,592	10,717	9,700	10,654
Hepatitis D	66	49	69	65	72
Gastrointestinal diseases					
Botulism	1	3	-	2	-
Campylobacteriosis	19,943	22,549	24,169	28,441	32,084
Cryptosporidiosis	2,408	4,063	5,420	4,692	3,003
Haemolytic uraemic syndrome (HUS)	21	18	16	14	12
Hepatitis A	231	179	145	216	434
Hepatitis E	58	41	43	47	39
Listeriosis	80	70	85	71	73
Paratyphoid	70	76	79	68	81
Shiga Toxin-producing E. Coli (STEC)	115	136	341	497	561
Salmonellosis	16,270	16,953	18,059	16,413	14,171
Shigellosis	1,033	1,039	1,407	1,771	2,589
Typhoid Fever	117	114	104	144	176
Quarantinable diseases					
Cholera	2	2	1	2	-
Highly pathogenic avian influenza (human)	-	-	-	-	-
Plague	-	-	-	-	-
Rabies	-	-	-	-	-
Severe Acute Respiratory Syndrome (SARS)	-	-	-	-	-
Viral haemorrhagic fever (NEC)	-	-	-	-	-
Yellow fever	-	-	-	-	-
Sexually transmissible infections					
Chlamydial infection	86,792	86,407	94,554	101,189	98,043
Donovanosis	1	-	-	-	-
Gonococcal infection	15,696	18,504	23,872	28,380	30,971
Syphilis - congenital	3	4	2	8	8
Syphilis – less than 2 years duration	2,066	2,786	3,381	4,414	5,011
Syphilis – greater than 2 years or unspecified duration	1,864	1,941	2,024	2,017	2,214
Vaccine preventable diseases					
Diphtheria	2	2	8	8	11

Disease	2014	2015	2016	2017	2018
Haemophilus influenzae type b	21	16	17	16	18
Influenza (laboratory confirmed)	67,666	100,594	90,840	251,152	58,829
Measles	339	74	99	81	103
Mumps	186	645	804	811	634
Pertussis	11,863	22,540	20,100	12,226	12,569
Pneumococcal disease – invasive	1,563	1,497	1,664	2,049	2,032
Rubella	16	17	16	10	10
Rubella – congenital	-	1	-	-	-
Tetanus	3	2	7	4	3
Varicella zoster infection – Chickenpox	2,111	2,488	3,025	3,171	4,559
Varicella zoster infection – Shingles	5,526	6,346	7,469	9,209	13,929
Varicella zoster infection – Unspecified	12,118	13,545	15,640	15,722	13,099
Vector-borne diseases					
Flavivirus infection (unspecified)	20	11	116	16	5
Barmah Forest virus infection	741	628	329	448	341
Chikungunya virus infection	110	111	114	99	39
Dengue virus infection	1,721	1,714	2,237	1,131	905
Japanese encephalitis virus infection	1	3	-	1	-
West Nile/Kunjin virus infection	1	1	-	6	1
Malaria	325	234	304	364	404
Murray Valley encephalitis virus infection	-	2	-	-	1
Ross River virus infection	5,310	9,543	3,734	6,927	3,128
Zoonoses					
Anthrax	-	-	-	-	-
Australian bat lyssavirus	-	-	-	-	-
Brucellosis	17	19	18	19	28
Leptospirosis	84	72	130	146	144
Lyssavirus (NEC)	-	-	-	-	-
Ornithosis (otherwise known as Psittacosis)	41	16	22	21	9
Q fever	474	604	558	477	505
Tularaemia	-	-	-	-	-
Other bacterial infections					
Legionellosis	425	364	368	387	441
Leprosy	10	13	21	10	6
Meningococcal disease – invasive	168	182	252	380	281
Tuberculosis	1,343	1,249	1,364	1,434	1,445

Notes:

NEC – not elsewhere classified

* The data provided were extracted from the National Notifiable Diseases Surveillance System (NNDSS) on 27 March 2019. Due to the dynamic nature of the NNDSS, data in this extract is subject to retrospective revision and may vary from data reported in published NNDSS reports and reports of notification data by states and territories.

Animal disease

The Australian Government Department of Agriculture and Water Resources is responsible for national coordination on animal health matters and for providing reports on Australia's animal health status, including a joint annual return to the World Organisation for Animal Health (OIE), the Food and Agriculture Organization (FAO) and the WHO.

The following sections contain information on significant animal disease events/issues in 2018. Australia publishes quarterly reports¹² and annual reports¹³ on animal health incidents and status, as well as providing emergency, six-monthly and annual reports to the OIE¹⁴. Australia's status for OIE-listed diseases for 2018 is shown in the table that follows. Diseases specific to aquatic animals can be found on the Australian Government Department of Agriculture and Water Resource's website (<http://www.agriculture.gov.au/animal/aquatic/reporting/reportable-diseases>).

Australia's status for OIE-listed diseases of terrestrial animals, 2018

¹² <http://www.animalhealthaustralia.com.au/status/ahsq.cfm>

¹³ <http://www.animalhealthaustralia.com.au/status/ahia.cfm>

¹⁴ <http://web.oie.int/wahis/public.php?page=home>

Disease	Status	Date of last occurrence and notes
Multiple-species diseases		
Anthrax	Present	Limited distribution
Aujeszký's disease virus (Infection with)	Free	Never occurred
Bluetongue	Viruses present	Restricted to specific areas of Australia. Sentinel herd and vector monitoring programs are in place
<i>Brucella abortus</i> (Infection with)	Free	Australia declared freedom in 1989
<i>Brucella melitensis</i> (Infection with)	Free	
<i>Brucella suis</i> (Infection with)	Serological evidence	Maintained in feral pigs in New South Wales and Queensland. Rare occurrence in domestic pigs. Sporadic detections in pig-hunting dogs
Crimean Congo haemorrhagic fever	Free	Never occurred
<i>Echinococcus granulosus</i> (Infection with)	Present	
<i>Echinococcus multilocularis</i> (Infection with)	Free	Never occurred
Epizootic haemorrhagic disease	Virus present	Disease has not been reported
Equine encephalomyelitis (eastern)	Free	Never occurred
Foot-and-mouth disease	Free	1872. Australia is officially recognised by the OIE as free without vaccination
Heartwater	Free	Never occurred
Japanese encephalitis	Serological evidence	Detected seasonally in Torres Strait, however no confirmed clinical cases since 2004
New World screw-worm fly (<i>Cochliomyia hominivorax</i>)	Free	Never occurred
Old World screw-worm fly (<i>Chrysomya bezziana</i>)	Free	Never occurred
Paratuberculosis	Present	National control and management programs are in place
Q fever	Present	
Rabies virus (Infection with)	Free	1867
Rift Valley fever virus (Infection with)	Free	Never occurred
Rinderpest virus (Infection with)	Free	1923. With the global eradication of rinderpest in 2011, all countries are free

Disease	Status	Date of last occurrence and notes
Surra (<i>Trypanosoma evansi</i>)	Free	Never occurred
<i>Trichinella</i> spp. (Infection with)	Not reported	<i>Trichinella spiralis</i> is not present. <i>T. pseudospiralis</i> is present in wildlife
Tularaemia	Present	Detected in archived samples (collected 2002) from Tasmanian ringtail possums
Vesicular stomatitis	Free	Never occurred
West Nile fever	Australian variants present	A previously unknown Australian strain of West Nile virus was identified following an outbreak of neurological disease in horses in 2011. No cases were reported in 2018
Cattle diseases		
Bovine anaplasmosis	Present	Mainly in Northern Australia
Bovine babesiosis	Present	Mainly in Northern Australia
Bovine genital campylobacteriosis	Present	
Bovine spongiform encephalopathy	Free	Never occurred. National Transmissible Spongiform Encephalopathies Freedom Assurance Program includes surveillance. Australia has official OIE 'negligible risk' status
Bovine tuberculosis	Free	Australia declared freedom in 1997. Last case in any species was reported in 2002
Bovine viral diarrhoea	Present	Bovine viral diarrhoea virus 1 (BVDV-1) is present. BVDV-2 has never occurred
<i>Mycoplasma mycoides</i> subsp. <i>mycoides</i> SC (Contagious bovine pleuropneumonia) (Infection with)	Free	1967. Australia declared freedom in 1973 and is officially recognised by the OIE as free
Enzootic bovine leucosis	Very low prevalence in beef cattle	Australian dairy herd achieved freedom from EBL on 31 December 2012
Haemorrhagic septicaemia	Free	Never occurred. Strains of <i>Pasteurella multocida</i> are present, but not the 6b or 6e strains that cause haemorrhagic septicaemia
Infectious bovine rhinotracheitis/infectious pustular vulvovaginitis	Present	Bovine herpesvirus (BHV) 1.2b – present; BHV-1.1 and 1.2a – never occurred
Lumpy skin disease	Free	Never occurred
Theileriosis	Free	<i>Theileria parva</i> and <i>T. Annulata</i> are not present

Disease	Status	Date of last occurrence and notes
Trichomonosis	Present	
Trypanosomosis (tsetse borne)	Free	Never occurred
Sheep and goat diseases		
Caprine arthritis–encephalitis	Present	Voluntary accreditation schemes exist
Contagious agalactia	Not reported	<i>Mycoplasma agalactiae</i> has been isolated, but Australian strains do not produce agalactia in sheep
Contagious caprine pleuropneumonia	Free	Never occurred
<i>Chlamydophila abortus</i> (Enzootic abortion of ewes, ovine chlamydiosis) (Infection with)	Not reported	Never occurred
Maedi–visna	Free	Never occurred
Nairobi sheep disease	Free	Never occurred
Ovine epididymitis (<i>Brucella ovis</i>)	Present	Voluntary accreditation schemes exist in all states
Peste des petits ruminants (Infection with)	Free	Never occurred. Australia is officially recognised by the OIE as free
Salmonellosis (<i>Salmonella Abortusovis</i>)	Free	Never occurred. Surveillance has shown no evidence of infection in sheep
Scrapie	Free	1952. National Transmissible Spongiform Encephalopathies Freedom Assurance Program includes surveillance
Sheep pox and goat pox	Free	Never occurred
Equine diseases		
African horse sickness virus (Infection with)	Free	Never occurred. Australia is officially recognised by the OIE as free
Contagious equine metritis	Free	1980
Dourine	Free	Never occurred
Equine encephalomyelitis (western)	Free	Never occurred
Equine infectious anaemia	Present	Limited distribution and sporadic occurrence
Equine influenza virus (Infection with)	Free	Australia declared freedom in 2008 according to the OIE standards
Equine piroplasmosis	Free	1976

Disease	Status	Date of last occurrence and notes
Equid herpesvirus-1 (Equine rhinopneumonitis) (Infection with)	Present	
Equine viral arteritis (Infection with)	Serological evidence	
Glanders	Free	1891
Venezuelan equine encephalomyelitis	Free	Never occurred
Swine diseases		
African swine fever	Free	Never occurred
Classical swine fever virus (Infection with)	Free	1962. Official freedom status is recognised by the OIE
Nipah virus encephalitis	Free	Never occurred
Porcine cysticercosis	Free	Never occurred
Porcine reproductive and respiratory syndrome	Free	Never occurred
Swine vesicular disease	Free	Never occurred
Transmissible gastroenteritis	Free	Never occurred
Avian diseases		
Avian chlamydiosis	Present	
Avian infectious bronchitis	Present	
Avian infectious laryngotracheitis	Present	
Avian mycoplasmosis (<i>Mycoplasma gallisepticum</i>)	Present	
Avian mycoplasmosis (<i>M. synoviae</i>)	Present	
Duck virus hepatitis	Free	Never occurred
Fowl typhoid	Free	1952
Highly pathogenic avian influenza virus (Infection with)	Free	2013
Infectious bursal disease (Gumboro disease)	Present (mild form)	Infectious bursal disease occurs in a mild form and was last reported in 2004. Very virulent strains are not present
Low pathogenicity notifiable avian influenza virus (poultry) (Infection with)	Occasional	2013

Disease	Status	Date of last occurrence and notes
Newcastle disease virus in poultry (Infection with)	Lentogenic viruses present	Virulent Newcastle disease last occurred in poultry in 2002. In August 2011, a paramyxovirus not previously reported in Australia was detected in hobby pigeons in Victoria. Disease caused by this virus has not spread to poultry
Pullorum disease	Not reported	Last reported in 1992. <i>Salmonella Pullorum</i> has been eradicated from commercial chicken flocks
Turkey rhinotracheitis	Free	Never occurred
Lagomorph diseases		
Myxomatosis	Present	Used as a biological control agent for wild rabbits
Rabbit haemorrhagic disease	Present	Used as a biological control agent for wild rabbits
Bee diseases		
<i>Acarapis woodi</i> (Infestation of honey bees with)	Free	Never occurred
<i>Paenibacillus larvae</i> (American foulbrood) (Infection of honey bees with)	Present	
<i>Melissococcus plutonius</i> (European foulbrood) (Infection of honey bees with)	Present	
<i>Aethina tumida</i> (Small hive beetle) (Infestation with)	Present	Restricted distribution
<i>Tropilaelaps</i> spp. (Infestation of honey bees with)	Free	Never occurred
<i>Varroa</i> spp. (Varroosis) (Infestation of honey bees with)	Free	<i>Varroa destructor</i> has never been reported in Australia. <i>V. destructor</i> was detected and destroyed on a ship from an overseas country during quarantine inspection (also see the plant pest list below). The response to the 2016 incursion of <i>V. jacobsoni</i> is currently in the proof-of-freedom phase (to be completed in 2019)
Other diseases		
Camel pox	Free	Never occurred
Leishmaniosis	Australian variant, <i>Leishmania macropodum</i> , present	Rare. No isolate was found in 2018. Australian variant, <i>Leishmania macropodum</i> , was first isolated in 2000 from macropods.

Comments on selected OIE-listed diseases

Anthrax

Anthrax is on the list of nationally notifiable diseases and is subject to compulsory government controls, including quarantine, disposal of carcasses, and vaccination and tracing of at-risk animals and their products. Areas at risk of anthrax occurrence are well defined; they include the northern and north-eastern districts of Victoria and central New South Wales. In these areas, anthrax has a low prevalence and occurs only sporadically. Anthrax has never been recorded in the Northern Territory. South Australia's last recorded anthrax outbreak was in 1914 and Tasmania's was more than 75 years ago. The last case in Western Australia was an isolated case in 1994. Terrestrial animal cases of anthrax occurred in New South Wales, Queensland and Victoria in 2018. Anthrax occurred in New South Wales in 2016. Anthrax is considered a tier 1 security sensitive biological agent in Australia and is subject to requirements under the National Health Security Act 2007.

Attachment 3.3

Plant pests and diseases ¹⁵

The Australian Government Department of Agriculture and Water Resources, through the Australian Chief Plant Protection Officer, is the peak organisation responsible for gathering information on pests of plants. The Department is notified of exotic incursions through State and Territory government agricultural, forestry and natural resource agencies. It provides national leadership in responding to incursions of exotic pests and diseases of plants.

Australia exotic plant pest notifications for 2018

Australia exotic plant pest notifications for 2018					
Scientific name	Common name	State/Territory	Pest/disease type	Host/commodity detected in	Notification date
New Detections					
<i>Aleurothrixus trachoides</i>	capsicum whitefly	Torres Strait, QLD	insect	chilli, golden dewdrop white fig	9/08/2018
<i>Apricot latent virus</i>	ALV	Vic	virus	apricot	4/07/2018
<i>Asian prunus virus 2</i>	APV2	Vic	virus	apricot	4/07/2018
<i>Barley virus G</i>	BVG	Vic	virus	Barley, wheat, wild oats	6/07/2018
<i>Caracollina lenticula</i>	-	SA	snail	Not associated with a host when collected	5/09/2018
<i>Citrus viroid V (CVd-V)</i>	CVd-V	Torres Strait, QLD,	viroid	citrus	19/12/2017
<i>Citrus viroid V (CVd-V)</i>	CVd-V	Torres Strait, QLD, NSW	viroid	citrus	19/12/2017
<i>Citrus viroid VI (CVd-VI)</i>	CVd-VI	NSW	viroid	citrus	19/12/2017
<i>Columnnea latent viroid</i>	CLVd	Vic	Virus	chilli seeds	5/04/2018
<i>Coptotermes gestroi</i>	Asian subterranean termite	Christmas Island, external territory	insect	timber dunnage	15/06/2018

¹⁵ Websites that regularly report plant pests and diseases are: <http://www.planthealthaustralia.com.au/go/phau/strategies-and-policy/national-plant-biosecurity-status-report>, and <http://www.outbreak.gov.au/>.

<i>Cosmopolites sordidus</i>	banana weevil borer	Norfolk Island, external territory	insect	banana	17/09/2018
<i>Didymella aliena</i>	-	Vic	fungus	English box	28/05/2018
<i>Diplodia scrobiculata</i>	diplodia dieback	QLD	fungus	Pine tree	23/08/2018
<i>Discus rotundatus</i>	rotund disc snail	Vic	gastropod	Not associated with a host when collected	2/02/2018
<i>Elsinoe citricola</i>	citrus scab	QLD	fungus	citrus	27/06/2018
<i>Endive necrotic mosaic virus</i>	ENSV	NSW	Virus	Cichorium endivia (endive)	22/06/2018
<i>Erysiphe syringae</i>	-	Vic	fungus	lilac	22/03/2018
<i>Faba bean Breeza virus</i>	FBBV	NSW	virus	Faba beans	23/07/2018
<i>Fusarium sp. AF-7</i>	-	QLD	fungus	tuckeroo trees (<i>Cupaniopsis anacardioides</i>)	18/08/2017
<i>Halyomorpha hayls</i>	brown marmorated stink bug	Clayton, Vic	insect	Not associated with a host when collected	5/12/2018
<i>Halyomorpha hayls</i>	brown marmorated stink bug	Fisherman Island, QLD	insect	Not associated with a host when collected	13/12/2018
<i>Halyomorpha hayls</i>	brown marmorated stink bug	Horsley Park, NSW	insect	Not associated with a host when collected	19/01/2018
<i>Halyomorpha hayls</i>	brown marmorated stink bug	Lytton, QLD	insect	Not associated with a host when collected	20/02/2018
<i>Halyomorpha hayls</i>	brown marmorated stink bug	New Chum, QLD	insect	Not associated with a host when collected	30/11/2018
<i>Halyomorpha hayls</i>	brown marmorated stink bug	insect	insect	Not associated with a host when collected	10/12/2018
<i>Heliococcus nr summervillei</i>	-	QLD	insect	Paspalum pasture species	3/10/2018
<i>Impatiens Necrotic Spot Virus</i>	INSV	NSW	Virus	lettuce	31/01/2017
<i>Kilifia deltoides</i>	scale	Christmas Island, external territory	insect	guava	18/09/2018
<i>Lepisiota frauenfeldi</i>	browsing ant	RAAF Base Pearce, Bullsbrook, WA	insect	Not associated with a host when collected	27/04/2018
<i>Macrophomina pseudophaseolina</i>	-	QLD	fungus	Not associated with a host when collected	23/10/2018
<i>Monacha sp.</i>	-	Vic	gastropod	Not associated with a host when collected	2/02/2018
<i>Nectarine stem-pitting associated virus</i>	NSPaV	Vic	virus	peach	4/07/2018

<i>Olla v-nigrum</i>	ashy gray lady beetle	QLD	insect	leucaena	15/11/2018
<i>Ophiostoma angusticollia</i>	blue-stain	NSW	fungus	Pine tree	1/03/2018
<i>Ophiostoma dentifundum</i>	-	NSW	fungus	blueberry	19/12/2018
<i>Ophiostoma pallidulum</i>	blue-stain	NSW	fungus	Pine tree	1/03/2018
<i>Ozgnathus cornutus</i>	ptinid beetle	NSW	insect	<i>Acacia</i> sp.	30/08/2018
<i>Phodoryctis caerulea</i>	Bean miner	QLD	insect	Snake beans	13/03/2018
<i>Phyllosticta cavendishii</i>	banana freckle	Christmas Island, external territory	fungus	Cavendish bananas	17/08/2018
<i>Phyllosticta maculata</i>	banana freckle	Cocos (Keeling) Island, external territory	fungus	banana	17/08/2018
<i>phytoplasma - relative of Ca.P. noviguineense</i>	-	QLD	bacteria	<i>Dypis poivreana</i> (ornamental palm)	16/08/2018
<i>Pseudomonas syringae</i> pv <i>actinidiae</i>	Psa	Vic	bacteria	kiwifruit	2/10/2018
<i>Prorhinotermes canalifrons</i>	subterranean termite	Christmas Island, external territory	insect	timber dunnage	21/08/2018
<i>Psuedocercospora opuntiae</i>	cactus leaf spot	NSW	fungus	prickly pear	10/04/2018
<i>Pterocomma populeum</i>	poplar bark aphid	TAS	insect	poplar tree	20/11/2018
<i>Puccinia striiformis</i> f. sp. <i>tritici</i> pathotype 199 E76A	wheat stripe rust	Vic	fungus	wheat	6/02/2018
<i>Pyrrhocoris apterus</i>	European firebug	Vic	insect	Not associated with a host when collected	17/04/2018
<i>Ramularia collo-cygni</i>	ramularia leaf spot disease	WA	fungus	barley	7/06/2018
<i>Schizentaspilus nr silvicola</i>	circular hard scale	QLD	insect	tea	23/03/2018
<i>Solenopsis invicta</i>	red imported fire ant	Vic	insect	Not associated with a host when collected	24/02/2018
<i>Stromatium barbatum</i>	teak trunk borer	QLD	insect	wooden jewel box	4/12/2018
<i>Trogoderma glabrum</i>	glabrous cabinet beetle	SA	insect	Not associated with a host when collected	16/02/2018
<i>Trogoderma granarium</i>	Khapra beetle	Vic	insect	Not associated with a host when collected	15/05/2018
<i>Varroa destructor</i>	varroa mite	Vic	insect	Bees	28/06/2018

<i>Xanthomonas alfalfae</i> subsp. <i>citrumelonis</i>	citrus bacterial spot	NT	fungus	West Indian lime	19/06/2018
<i>Xanthomonas citri</i> subsp <i>citri</i>	Citrus canker	NT	bacteria	citrus	9/04/2018
<i>Xanthomonas citri</i> subsp <i>citri</i>	Citrus canker	WA	bacteria	citrus	3/05/2018
<i>Xerotricha conspurcara</i>	snail	Vic	gastropod	Not associated with a host when collected	22/03/2018
<i>Xyleborinus sculptilis</i>	bark beetle	QLD	insect	Not associated with a host when collected	2/02/2018

Confidence-Building Measure "C"

Encouragement of publication of results and promotion of use of knowledge

At the Third Review Conference it was agreed that States parties continue to implement the following:

Encouragement of publication of results of biological research directly related to the Convention, in scientific journals generally available to States parties, as well as promotion of use for permitted purposes of knowledge gained in this research.

Modalities

The Third Review Conference agreed on the following:

1. It is recommended that basic research in biosciences, and particularly that directly related to the Convention should generally be unclassified and that applied research to the extent possible, without infringing on national and commercial interests, should also be unclassified.
2. States parties are encouraged to provide information on their policy as regards publication of results of biological research, indicating, *inter alia*, their policies as regards publication of results of research carried out in research centres and laboratories subject to exchange of information under item A and publication of research on outbreaks of diseases covered by item B, and to provide information on relevant scientific journals and other relevant scientific publications generally available to States parties.
3. The Third Review Conference discussed the question of cooperation and assistance as regards the safe handling of biological material covered by the Convention. It concluded that other international forums were engaged in this field and expressed its support for efforts aimed at enhancing such cooperation.

Australia's submission of Confidence Building Measure "C" with respect to the Defence Science and Technology (DST) Group and the Australian Animal Health Laboratory (AAHL) is as follows:

Land Division, Defence Science and Technology (DST) Group

The policy of the Defence Science and Technology Group is to publish results of general scientific value in open literature. Information that is more specialised and relevant particularly to defence is published in laboratory reports, which are unclassified and available to the public, unless they contain information that might prejudice the security of Australia or information that is "commercial-in-confidence". Most results of the biological research will be either unclassified or "commercial-in-confidence".

Journal Papers

Jenner D, Chong D, Walker N, Green AC. An imaging flow cytometry method to assess ricin trafficking in A549 human lung epithelial cells. *Methods*. 2018 Feb 1;134-135:41-49. doi: 10.1016/j.ymeth.2017.10.012

Lewis JL, Shields KA, Chong DC. Detection and quantification of ricin-mediated 28S ribosomal depurination by digital droplet PCR. *Anal Biochem*. 2018 Dec 15;563:15-19. doi: 10.1016/j.ab.2018.09.017

Conference papers/proceedings or book chapters

Yousef, J, Lewis, J and Shields, K: Geographical attribution of *Ricinus communis* using Single Nucleotide Polymorphisms In ABACBS 2018 National Conference, University of Melbourne 26-30 Nov 2018

Australian Animal Health Laboratory (AAHL)

Consistent with the goal of encouraging publication of results and promotion of use of knowledge, AAHL has compiled the following list of relevant contributions:

Journal articles

1. Artois, Jean; Blasdell, Kim; Duong, Veasna; Philippe, Buchy; Hul, Vibol; Morand, Serge; et al. Effects of mammarenavirus infection (Wēnzhōu virus) on the morphology of *Rattus exulans*. *Infection, Genetics and Evolution*. 2018; 63:404-409.
2. Baker, Michelle. Tools to study pathogen-host interactions in bats. *Virus Research*. 2018; 248:5-12. <https://doi.org/10.1016/j.virusres.2018.02.013>
3. Banerjee, A.; Misra, V.; Schountz, T.; Baker, Michelle. Tools to study pathogen-host interactions in wildlife: Dissecting bats as viral reservoirs. *Virus Research*. 2018; 248:5-12. <https://doi.org/10.1016/j.virusres.2018.02.013>
4. Barr, Jenn; Todd, Shawn; Crameri, Gary; Foord, Adam; Marsh, Glenn; Frazer, Leah; et al. Animal infection studies of two recently discovered African bat paramyxoviruses, Achimota 1 and Achimota 2. *Scientific Reports*. 2018; 8:Article no. 12744. <https://doi.org/10.1038/s41598-018-31193-z>
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Confidence-Building Measure "E"

Declaration of legislation, regulations and other measures

At the Third Review Conference the States Parties agreed to implement the following, later amended by the Seventh Review Conference:

As an indication of the measures which they have taken to implement the Convention, States Parties shall declare whether they have legislation, regulations or other measures:

(a) To prohibit and prevent the development, production, stockpiling, acquisition or retention of the agents, toxins, weapons, equipment and means of delivery specified in Article I of the Convention, within their territory or anywhere under their jurisdiction or under their control anywhere;

(b) In relation to the export or import of micro-organisms pathogenic to man, animals and plants or of toxins in accordance with the Convention;

(c) In relation to biosafety and biosecurity.

States parties shall complete the attached form (Form E) and shall be prepared to submit copies of the legislation or regulations, or written details of other measures on request to the Implementation Support Unit (ISU) within the United Nations Office for Disarmament Affairs or to an individual State Party. On an annual basis, States Parties shall indicate, also on the attached form, whether there has been any amendment to their legislation, regulations or other measures.

Form E

Declaration of legislation, regulations and other measures

Relating to	Legislation	Regulations	Other measures ¹⁶	Amended since last year
(a) Development, production, stockpiling, acquisition or retention of microbial or other biological agents, or toxins, weapons, equipment and means of delivery specified in Article I	Yes	Yes	No	No
(b) Exports of micro-organisms ¹⁷ and toxins	Yes	Yes	Yes	Yes
(c) Imports of micro-organisms ¹¹ and toxins	Yes	Yes	No	No

¹⁶ Including guidelines.

¹⁷ Micro-organisms pathogenic to man, animals and plants in accordance with the Convention.

(d) Biosafety ¹⁸ and biosecurity ¹⁹	Yes	Yes	Yes	Yes
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In addition to the above summary, an overview of key Australian Government legislation relevant to the BWC is provided below:

Background

The following Australian Government legislation, regulations and other measures are relevant to this confidence-building measure. The Australian Government has a range of legislative and executive measures that ensure compliance with UN Security Council Resolution 1540 (2004).

Australia is fully committed to the work of the 1540 Committee in ensuring global implementation of this resolution. As well as legislation dedicated to Weapons of Mass Destruction (WMD), there is a considerable amount of health, safety and environmental legislation that controls access to hazardous biological materials.

National Health Security Act 2007

The *National Health Security Act 2007* (NHS Act) was passed by the Australian Parliament in September 2007. It has two main operative parts: Part 2 of the Act enacts Australia's responsibilities under the International Health Regulations 2005 and formalises surveillance systems in Australia, while Part 3 establishes a regulatory scheme for biological agents of security concern.

Part 3 of the NHS Act enables the Department of Health to regulate the handling of Security Sensitive Biological Agents (SSBAs). The NHS Act establishes a two tiered list of SSBAs, a National Register that is informed by mandatory reporting, the purposes for which SSBAs may be handled, security standards (physical, personnel, information management, disposal and transport) that must be met, exemptions from regulation, and an inspection scheme to monitor compliance. The regulatory scheme monitors both known SSBAs and biological agents suspected of being SSBAs.

Security Sensitive Biological Agent Standards

The SSBA Standards set out minimum requirements relating to physical security, personnel, information management, decontamination and inactivation, disposal and transport of SSBAs and biological agents suspected of being SSBAs. They include specific directions for dealing with biosecurity risks and establish a systematic approach to the management of the security of SSBAs. The SSBA Standards are comprised of normative requirements that are mandatory and informative statements to assist in meeting the normative requirements.

The SSBA Regulatory Scheme is further strengthened through a background checking scheme for personnel who handle SSBAs. Background checks, known as National Health Security Checks, consist of a national criminal history check against a list of disqualifying offences and a security assessment.

The SSBA Regulatory Scheme has a comprehensive inspection scheme for facilities handling SSBAs. Registered facilities that handle Tier 1 SSBAs are inspected every 18 months. Registered facilities that handle Tier 2 SSBAs are inspected every two years. Inspections of non-registered facilities handling suspected SSBAs and spot checks are undertaken as required. Inspections continue to show a high level of compliance.

Chemical Weapons (Prohibition) Act 1994 and associated regulations

This Act is administered by the Minister for Foreign Affairs, and statutory responsibilities are held by the Australian Safeguards and Non-Proliferation Office. The Act gives effect to Australia's obligations under the *Convention on the*

¹⁸ In accordance with the latest version of the WHO Laboratory Biosafety Manual or equivalent national or international guidance.

¹⁹ In accordance with the latest version of the WHO Laboratory Biosecurity Guidance or equivalent national or international guidance.

Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction. The Act controls certain chemicals which may be used as weapons, including the natural toxins ricin and saxitoxin. The Act's general purpose criterion also applies to the hostile use of any chemical, including other toxins. The Act extends to the acts of Australian citizens outside Australia. Contravention of the Act is an indictable offence.

Crimes (Biological Weapons) Act 1976

This Act, which is administered by the Attorney-General, makes it unlawful for Australians to develop, produce, stockpile or otherwise acquire or retain microbial or other biological agents or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; or weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict. The Act extends to the acts of Australian citizens outside Australia. Contravention of the Act is an indictable offence.

Crimes (Biological Weapons) Regulations 1980

These Regulations specify the way in which substances acquired under the Crimes (Biological Weapons) Act 1976 should be stored, disposed of and analysed.

Customs Act 1901 and Customs (Prohibited Exports) Regulations 1958

The Act controls the export of tangible defence and strategic dual-use goods and technologies and is administered by the Minister for Immigration and Border Protection and the Minister for Defence. Controls are executed through Regulation 13E of the *Customs (Prohibited Exports) Regulations 1958* which allows the Minister for Defence, or an authorised person to grant a permission to export goods listed in the Defence and Strategic Goods List (DSGL).

The DSGL specifies the good, software or technology that is regulated when exported, supplied, brokered or published. The list comprises two parts:

- Part 1 of the DSGL lists munitions (or military) items, which are those goods and technologies designed or adapted for use by armed forces or goods that are inherently lethal;
- Part 2 lists dual-use items, that is, items that may be used for commercial purposes, but may be used in military systems or for weapons of mass destruction purposes. As such, Part 2 includes human pathogens and toxins, animal pathogens, plant pathogens and equipment capable of being used to develop biological weapons.

The Act also includes a prohibition power that allows the Minister for Defence to prohibit the export of any goods or technology when the Minister believes the export is for a military end-use that would prejudice the security, defence or international relations of Australia.

Applications to export goods listed in the DSGL are considered on a case-by-case basis against criteria specified in the *Customs (Prohibited Exports) Regulations 1958* to ensure exports of military and dual-use goods are consistent with Australia's broader national interests and international obligations.

Australia's export control policies and procedures are reviewed regularly to reflect shifts in strategic priorities and reflect changes in the various international counter-proliferation multilateral and export control regimes of which Australia is a member, including the Australia Group (AG), Proliferation Security Initiative (PSI) as well as enforcing United Nations Security Council Resolutions (UNSCRs).

The Biosecurity Act 2015 and associated regulations

The *Biosecurity Act 2015* commenced on 16 June 2016 (fully replacing the *Quarantine Act 1908*) and is administered by the Minister for Agriculture and Water Resources, and the Minister for Health. The Act is designed to prevent the introduction, establishment and spread of pests and diseases affecting humans, plants, animals and the environment. Accordingly, in conjunction with the *Biological Control Act* (see below), it controls the import into Australia of all biological material and may prohibit the import in some circumstances.

Those aspects of the Act that relate to human biosecurity are administered by the Minister for Health. Those aspects of the Act that relate to plant and animal biosecurity are administered by the Minister for Agriculture and Water Resources. All biological agents require prior permission to import. As per the Biosecurity (Prohibited and conditionally non-prohibited Goods) Determination 2016 under the act, goods of biological origin, including human pathogenic microorganisms and toxins, may only be imported into Australia if approval has been given by a Director of Biosecurity. In giving approval, the Director may require that the importer adhere to certain conditions or requirements, including, but not limited to, the storage, transportation, distribution and disposal of the goods, the use to which the goods may be put, and the personnel authorised to handle or use the goods.

Import conditions vary depending on the nature of the organisms, and on the risks involved. High risk organisms such as serious pathogens of humans, animals and plants which might be considered as potential biological weapons would only be permitted under the most stringent, high security conditions. Very few such imports are approved, and generally those would be for diagnostic research in preparation for emergency responses to specific serious exotic disease incursions.

Penalties for the importation of prohibited or conditionally non-prohibited goods without a permit, and for breaches of permit requirements, are severe and may include a fine, imprisonment or both.

Biological Control Act 1984 and associated regulations

This Act is administered by the Minister for Agriculture and Water Resources. It provides powers additional to those of the Biosecurity Act in order to regulate the release of biological agents for the control of pests, diseases and weeds. It primarily covers issues of compensation for the release of a biological control agent.

Gene Technology Act 2000 and associated regulations

The Minister for Health is the commonwealth minister responsible for gene technology regulation, including the *Gene Technology Act 2000* which regulates dealings with genetically modified organisms (GMOs) to protect the health and safety of people and the environment. The legislation is administered by an independent statutory office holder, the Gene Technology Regulator, and provides a risk-based system for regulation of GMOs. There are also legislative provisions for accreditation of organisations, certification of physical containment facilities and extensive monitoring and enforcement powers.

All dealings with GMOs must be licensed by the Regulator, unless otherwise authorised under the legislation. Dealings include production, import, transport and conducting experiments with GMOs. All licence applications are subject to case-by-case scientific risk assessment and risk management.

The legislation requires licensing for 'higher risk' GMOs, which would include those that could potentially be used as biological weapons or for other malicious purposes, including those that involve: modifications that may alter pathogenicity, virulence, host range or treatment of a microorganism; cloning or high expression of toxin genes; or animals, plants or fungi that are capable of secreting infectious agents as a result of the genetic modification. Work with such 'higher risk' GMOs is typically for medical, veterinary or agricultural research purposes and licence conditions include requirements that dealings be conducted in facilities certified by the Regulator to the appropriate physical containment (PC) level.

There are significant penalties for dealing with GMOs without a licence, and for breaches of licence conditions, which may include a fine, imprisonment or both.

Therapeutic Goods Act 1989 and associated regulations

The Therapeutic Goods Administration (TGA) is part of the Health Products Regulation Group of the Australian Government Department of Health, and regulates therapeutic goods for human use under this Act. The Act covers the import, manufacture, supply and export of therapeutic goods, and includes pathogenic micro-organisms where these are included in vaccines for human use.

Prior to initial supply for human use, products must be entered in the Australian Register of Therapeutic Goods (the Register). Vaccines are registrable products, and undergo evaluation by the TGA prior to entry in the Register.

Weapons of Mass Destruction (Prevention of Proliferation) Act 1995 and associated regulations

The Act is administered by the Minister for Defence and complements the existing controls contained in the *Customs Act 1901* and *Customs (Prohibited Exports) Regulations 1958*. The Act and the associated Regulations provide the legislative basis for controlling the movement of goods and provision of services where there is a belief or suspicion that the goods or services may be used in, or assist a weapons of mass destruction (WMD) program. The WMD Act defines a WMD program as a plan or program for the development, production, acquisition or stockpiling of nuclear, biological or chemical weapons or missiles capable of delivering such weapons.

The Minister for Defence may prohibit the export, supply of goods, or the provision of services if the Minister believes or suspects it may contribute to a WMD program, including a biological weapons program. Penalties for conducting a transaction that has been prohibited by the Minister for Defence or failing to comply with conditions specified in a notice are severe and may include imprisonment.

The Act applies to Australian citizens and persons normally resident in Australia (including foreigners but only applies to their activities that take place within Australia) and bodies incorporated in Australia or an external Territory. The Act provides a mechanism for exporters to obtain written guidance from the Minister on whether he or she has reason to suspect that the goods may be used in a WMD program.

Defence Trade Controls Act 2012 and associated regulations

The offence provisions of the Act came into force on 2 April 2016. The Act is administered by the Minister for Defence, and introduced controls on the supply and publishing of technology and the brokering of goods and technology listed on the Defence and Strategic Goods list (DSGL). The offence provisions of the Act came into force on 2 April 2016.

The Act regulates the:

- intangible supply (such as transfer by electronic means) of technology listed on the DSGL;
- arranging the supply (brokering) of goods and technology that are either: listed on Part 1 of the DSGL, or have a military or WMD end use;
- publication of technology listed in Part 1 of the DSGL.

The Act also includes a prohibition power that allows the Minister for Defence to prohibit the supply, brokering or publication of goods and technology on the DSGL when the Minister believes the activity would prejudice the security, defence or international relations of Australia.

Australian Export Controls and the Life Sciences Guide

The Guide was developed in 2016 to assist academics, researchers, laboratories and research centres to understand how Australia's export control laws apply to the export, supply, publication or brokering of proliferation-sensitive, life sciences-related goods, software and technology. The Guide aims to raise awareness in academia and industry about Australia's export control laws, reducing the risk of inadvertent involvement in the biological weapons programs of other countries.

Australian course on the United Nations Secretary-General's Mechanism (UNSGM)

During 17-28 October 2016 Australia hosted the first Southern Hemisphere UNSGM training course, with a focus on investigating the alleged use of biological weapons. The UNSGM was developed in the late 1980s to carry out prompt investigations in response to allegations brought to the UN Secretary-General's attention concerning the possible use of chemical and biological and toxin weapons. The Australian course included participants from Australia, Canada, China, New Zealand, Philippines, Republic of Korea, Russia, South Africa and Thailand. The training program, developed with the UN Office of Disarmament Affairs (UNODA), strengthened the response capacity in the Asia-Pacific, encouraged greater interoperability and sharing of expertise and skills between members of the UNODA roster of

qualified experts, increased awareness of issues related to the alleged use of biological weapons, and increased regional awareness of the UNSGM. In 2018, Australia continued to support the UNSGM through nominating additional qualified experts for the roster and preparing training materials.

Confidence-Building Measure "F"

Declaration of past activities in offensive and/or defensive biological research and development programmes

In the interest of increasing transparency and openness, States Parties shall declare whether or not they conducted any offensive and/or defensive biological research and development programmes since 1 January 1946.

If so, States Parties shall provide information on such programmes, in accordance with Form F.

Form F

Declaration of past activities in offensive and/or defensive biological research and development programmes

In addition to the following information, see **Attachment 4** for an explanation of research related to biological warfare defence in Australia.

1. Date of entry into force of the Convention for the State Party.

5 October 1977

2. Past offensive biological research and development programmes:

- YES – NO

No

- Period(s) of activities
Not applicable

- Summary of the research and development activities indicating whether work was performed concerning production, test and evaluation, weaponization, stockpiling of biological agents, the destruction programme of such agents and weapons, and other related research.

Not applicable (see Attachment 4).

3. Past defensive biological research and development programmes:

- YES – NO

Yes. Since 1994 Australia commenced a modest program of research into defence against toxins as warfare agents (see Attachment 4).

- Period(s) of activities
1994 onwards (see Attachment 4).

- Summary of the research and development activities indicating whether or not work was conducted in the following areas: prophylaxis, studies on pathogenicity and virulence, diagnostic techniques,

aerobiology, detection, treatment, toxinology, physical protection, decontamination, and other related research, with location if possible.

See Attachment 4.

**EXPLANATORY STATEMENT
RESEARCH AND DEVELOPMENT PROGRAMS RELATED TO
BIOLOGICAL WARFARE AND DEFENCE IN AUSTRALIA
SINCE 1 JANUARY 1946**

Between 1946 and 1994, Australia had no research and development program specifically aimed at defence against biological and toxin weapons. However, some methods for protection against chemical warfare agents could also be used to protect against biological agents. As Australia has had a longstanding research and development program to develop protection against chemical agents, it had, though only incidentally, also been involved in the development of means capable of offering some protection from biological weapons.

The position at the end of World War II

During World War II, Australia acquired a protective capability against chemical and biological warfare (CBW), which included the equipping of military units with protective clothing, respirators, detection apparatus and decontamination equipment. This capability was associated with the threat of chemical warfare, as almost all of the major combatants possessed chemical weapons.

Australia had no biological weapons and knew little about them. While a need for some defence against them was generally perceived, no major specific steps were taken to achieve this. The tendency was to regard chemical and biological weapons as a single category of threat, with biological weapons treated as the lesser element.

The situation from 1945 to the 1970s

In the late 1940s and 1950s, Defence committees assessed the need for defence against biological agents. The view adopted was that if biological threats arose, Defence authorities would co-opt staff from public health facilities that were trained in microbiology and biological sciences.

Australia also received limited information on biological defence from the United States of America, the United Kingdom and Canada through the Technical Cooperation Program (TTCP). Under the TTCP, there is provision for collaborative research on biological defence, but Australia did not participate in that research.

During the 1960s and 1970s, some research was conducted in an Australian Defence laboratory on toxins and venoms from Australian animals and plants. The research had no biological warfare focus, and was undertaken solely for the purpose of developing expertise in toxicology. The results of the research were published in scientific journals, contributing to the open scientific literature.

1970 to 1994

During this period, the policy was to maintain a watching brief on developments in biological warfare defence research so that a competency could be maintained to advise on policy and to give direction to training for the Australian Defence Force (ADF). This competency was derived from open literature and from Australia's partners under the TTCP. No research on defence against toxins (or other biological warfare agents) was undertaken during this period.

Australia did, however, maintain a research and development program into chemical defence, and the protective aspects of this program had some incidental common utility in biological defence.

1994 – Present

In 1994, it was recognised that Australia's knowledge of toxins as warfare agents needed to be strengthened if appropriate advice on defensive measures was to be given to the ADF and in support of the country's arms control objectives. Consequently, the Government gave approval to commence a modest program of research into defence against toxins as warfare agents.

It was also recognised that the Government needed advice on defence against biological weapons if it was to pursue its aims of strengthening the Biological Weapons Convention. Consequently, the policy of maintaining a watching brief on BW defence research was modified to allow research in BW defence that did not involve pathogenic reproducing organisms. This policy allowed research to include activities such as epidemiological studies, computer simulations and studies of the detection of toxins.

In 1998, government approval was given for Defence, Science and Technology Organisation (now Defence Science and Technology Group) to undertake biological defence work with reproducing organisms up to Risk Group 3. The subsequent program of work aims to mitigate the risk of use of biological weapons against Australian Defence personnel or civilians, and is in accordance with Australia's obligations under the BWC. Australia still maintains its active program into researching protective aspects of defence against chemical agents and has expanded the scope to include defence against biological weapons (e.g. incorporation of antibacterials in carbon absorbents).

Confidence-Building Measure "G"

Declaration of vaccine production facilities

To further increase the transparency of biological research and development related to the Convention and to broaden scientific and technical knowledge as agreed in Article X, each State Party will declare all facilities, both governmental and non-governmental, within its territory or under its jurisdiction or control anywhere, producing vaccines licensed by the State Party for the protection of humans. Information shall be provided on Form G attached.

Form G

Declaration of vaccine production facilities

Seqirus (Australia) Pty Ltd is the primary manufacturer licensed by the Australian Government pursuant to the *Therapeutic Goods Act 1989* to manufacture vaccines for human use. The licence requires the manufacturer to comply with the principles of Good Manufacturing Practice.

1. Name of facility:

Seqirus (Australia) Pty Ltd

2. Location (mailing address):

i) 39-79 Poplar Road Licence Number: MI-2013-LI-05688-1
Parkville, VIC 3052
Australia

ii) Q Fever Manufacturing Facility Licence Number: MI-2013-LI-05721-1
Building 8
189-209 Camp Road
Broadmeadows, VIC 3047
Australia

3. General description of the types of diseases covered:

Vaccine products must be entered in the Australian Register of Therapeutic Goods (ARTG) prior to supply of the products for human use. The ARTG identifies the following vaccines as being manufactured by Seqirus (Australia) (not all of these vaccines were necessarily manufactured in 2017):

Influenza Vaccine
Q fever Vaccine

Note: In regard to *Section 3, General Description of the Types of Diseases Covered*, Seqirus (Australia) Pty Ltd sponsors a wide range of bacterial vaccines and viral vaccines that are manufactured overseas and imported into Australia for supply in Australia.

There are other manufacturers in Australia with a GMP licence issued by the TGA to produce biological goods – this category includes, but is not limited to, vaccines. The list of these facilities may be accessed from the TGA on-line services home page at www.tga.gov.au and by selecting the links to “Industry”, “Manufacturing therapeutic goods” followed by the Quick Link to “eBusiness Services” and then “Australian Manufacturers”.

A search of “Australian Manufacturers” identifies the following manufacturers licensed to manufacture vaccines for human use (additional to Seqirus (Australia) Pty Ltd):

- GlaxoSmithKline Australia Pty Ltd, 1061 Mountain Highway Boronia VIC has been issued with a licence (MI-15082005-LI-000773-2) that authorises the manufacture of Rotarix vaccine for pooling, filling, packaging and labelling of final bulk batches manufactured by GlaxoSmithKline Biologicals S.A Belgium.

GlaxoSmithKline Australia Pty Ltd is also listed on the ARTG as a sponsor of vaccines (i.e. responsible for the commercial supply).
