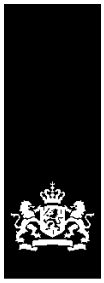


Ministry of Foreign Affairs

CONFIDENCE BUILDING MEASURES

in the framework of the

CONVENTION ON THE PROHIBITION OF THE DEVELOPMENT, PRODUCTION AND STOCKPILING OF BACTERIOLOGICAL (BIOLOGICAL) AND TOXIN WEAPONS

THE NETHERLANDS

2014

Introduction

This report contains the Netherlands contribution to the Confidence Building Measures information exchange for the Biological and Toxin Weapons Convention. Over the past few years the Netherlands Ministry of Foreign Affairs has endeavoured to consolidate the information gathering process by strengthening ties with other government departments, research institutions and private companies.

We are pleased to inform State Parties that we can agree to have the attached information published on a public website for information purposes. We encourage other State Parties to do the same, in order to increase mutual trust and confidence.

Date :	April 2014
State Party to the Convention :	The Netherlands

Annex 1

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			
A, part 2 (i)			
A, part 2 (ii)		x	2013
A, part 2 (iii)			
B			
C			
E			
F			
G			

(Please mark the appropriate box(es) for each measure with a tick, and fill in the year of last declaration in the last column where applicable.)

Date: April 2014

State Party to the Convention: The Netherlands

Date of ratification/accession to the Convention: 22 June 1981

National point of contact: Ms. Ayse Aydin +31 (0)70 348 5664

The organizations stated in the table below (in random order), have contributed to the Netherlands CBM-Report 2013 by filling out and returning the forms specified below.

Governmental Organisations/Public Institutions	**Abbreviations**	**Forms**
TNO Defence, Security and Safety	TNO	A (part 2), C, F
Ministry of Defence	DEF	A (part 2) C, E, F
Food and consumer Product Safety Authority	VWA	B
National Institute for Public Health and the Environment	RIVM	A (i), B, C
Central Veterinary Institute	CVI	C, G
Erasmus MC Rotterdam Laboratory for Infectious Diseases	EUR	B, C, G
Ministry of Infrastructure and Environment	I&M	C, E
Ministry of Social Affairs and Employment	SZW	E
Ministry of Health, Welfare and Sport	VWS	E

Companies	**Forms**
Abbott Biologicals BV	C, G
Bilthoven Biologics	G
Boehringer Ingelheim Health Operations BV	G
Crucell Holland BV	C, G
DSM Biologics Groningen	C, G
Intervet / MSD Animal Health	C, G

The following report is a compilation of these CBM-returns. The report is compiled in accordance with the order as to be found in Annex I (see previous page).

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 WHO[1] Laboratory Biosafety Manual and/or OIE[2] 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).

[1] World Health Organization
[2] World Organization for Animal Health

Form A, part 1 (i)

→ **Data from the National Institute for Public Health and the Environment (RIVM)**

Exchange of data on research centres and laboratories[3]

1. Name(s) of facility[4]

   National Institute for Public Health and the Environment,
   Rijksinstituut voor Volksgezondheid en Milieu (RIVM)

2. Responsible public or private

   organization or company

   Ministry of Health, Welfare and Sport
   Ministerie van Volksgezondheid en Sport

3. Location and postal address

   Antonie van Leeuwenhoeklaan 9, 3721 MA Bilthoven, the Netherlands

   Postal address: P.O. Box 1, 3720 BA Bilthoven, the Netherlands

   Internet address: http://www.rivm.nl

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

   Ministry of Health, Welfare and Sport.
   Ministry of Economic Affairs, Agriculture and Innovation
   Ministry of Infrastructure and Environment
   Various government inspectorates
   The European Union

   No funding by the Ministry of Defence.

5. Number of maximum containment units[5] within the research centre and/or laboratory, with an indication of their respective size (m^2)

   None

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

Diagnostic research, development of diagnostic methods to detect human diseases or to improve detection methods and research for new or improved vaccines. These activities are about human and zoonotic pathogens belonging to BSL 2 and BSL 3. All in order to:

- **Detect, control and prevent infectious diseases for the benefit of the public health in the Netherlands.**
- **Uniform prevention nationwide, strengthen vigilance and swift response to possible outbreaks through coordinating infectious disease control activities and international cooperation, and direction of the National vaccination program.**

[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)".

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

- **Stimulate effective prevention and control of infectious diseases by advising professionals and ministries, granting subsidies and by providing information to the public.**

Also activities concerning the procurement, storage and distribution of vaccines for the National Immunization Programme (Rijksvaccinatieprogramma, RVP), the National Influenza Prevention Programma (Nationaal Programma Griepppreventie, NPG) and the other national provisions such as pandemic preparedness and the National Serum Depot (NSD).

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 agents[6] on a State Party's territory:

Biosafety level 3[7]	**yes**
Biosafety level 2[8] (if applicable)	**yes**

[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 under way 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 utilized and the total funding provided to that portion of the programme;

(3) The organizational 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.

Part 2 (i)

National biological defence research and development programmes Declaration

→ **Data from the TNO Defence, Security and Safety and Ministry of Defence**

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

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

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, toxicology, physical protection, decontamination and other related research.

Within passive CBRN defence the threat is a major driving force (e.g. new agents, toxic industrial materials (TIM), improvised CBRN means of delivery). Emerging technologies (e.g. nanotechnology, biotechnology and robotics), both for the defensive side and for the ill-willing, have a major influence on the future effectiveness of CBRN defense. In a way, countering conventional adversary threatening with the asymmetric use of CBRN weapons is relatively easy because, although weaponised agents or warheads are usually powerful, persistent and highly lethal, they are also usually known and classifiable, enabling suitable protection levels to be put in place. By contrast, military contingency operations in support of civil powers in the aftermath of a terrorist-style CBRN attack are largely unpredictable and thus more difficult. An incident can occur in any location – most likely in an urban settings to increase casualties - and could involve any combination of CBRN elements. This has necessitated a very different approach because existing, more conventional, solutions are not sufficient. Since NLD MoD has no R&D capabilities of their own, TNO was tasked to develop and maintain an (external) research base on CBRN. The V1036 program aims at improving CBRN defensive measures as generic, modular, affordable and efficient as possible. The Bio threat agent part of this program is focused on:

- **Improvement and harmonization of methods for testing B-detection and identification equipment**
- **Development of methods for fast and reliable identification as well as non-clinical diagnosis of B-agents in suspected samples, mainly based on mass spectrometry**
- **Small parts are aimed at integral threat assessment; antimicrobial peptides and physical protection.**

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

The funding of the Ministry of Defence CBRN defence research programme is a total of 12 Meuro for the period 2010-2013, part of which (3,5 MEURO) is dedicated to biological defence.

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

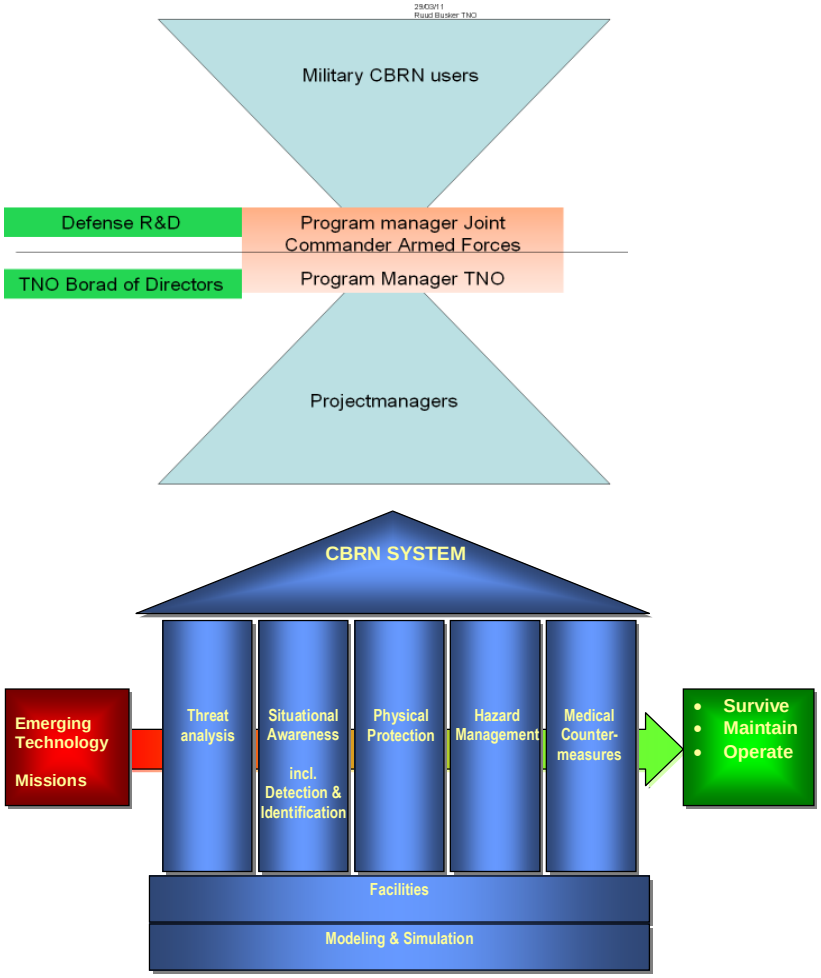
Yes

4. If yes, what proportion of the total funds for each programme is expended in these contracted or other facilities? **2%**

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

Research on feasibility of developing antimicrobial peptides.

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



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.

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.

1. What is the name of the facility?

TNO Prins Maurits Building; Department of CBRN Protection

2. Where is it located (include both address and geographical location)?

TNO premises, Lange Kleiweg 137, 2288GJ, City of Rijswijk, Province of Zuid-Holland, NL

3. Floor area of laboratory areas by containment level:

BL2 200 (sqM)

BL3 200 (sqM)

BL4 (sqM)

Total laboratory floor area 400 (sqM)

4. The organizational structure of each facility.

(i) Total number of personnel 10

(ii) Division of personnel:

Military 0

Civilian 10

(iii) Division of personnel by category:

Scientists 5

Engineers 1

Technicians 4

Administrative and support staff

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

Chemistry, analytical chemistry, toxicology, immunology, molecular biology, microbiology, medical biology, biochemistry, chemical engineering

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

No

(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?

Ministry of Defence appr. 60%, Industry + foreign governments 40%.

(vii) What are the funding levels for the following programme areas:

Research 60

Development 10

Test and evaluation 30

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

R&D results through hierarchy of TNO, and then to the Assignor (mostly delegates of the Ministry

of Defence). Subjects of general or scientific interest may be published in the open literature only if the Assignor agrees.

(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.)

Title: Identification of a new biomarker for fast discrimination between toxigenic and epidemic V. cholerae O1/O139 and non-epidemic V. cholerae in a modified MALDI-TOF MS assay (Poster)
Auteur(s) Paauw, A.; Tsivtsivadze, E. ; Trip, H. ; Niemcewicz, M. ; Sellek, R.E. ; Heng, J. ; Jong, A. de ; Majchrzykiewicz-Koehorst, J.A. ;Olsen, J.S.
2013 Gordon Research Conference - Chemical & Biological Terrorism Defense, Ventura, CA, USA, 10-15 May 2013

Biological Innovative Point Detection System (IPODS)
Auteur(s) Busker, R.W. ; Tuffigo, P.
2013 Joint EC EDA Workshop on the CBRN European Framework Cooperation, HOMSEC, Madrid, Spain, 13-14 March 2013

Draft genome sequence of Francisella tularensis subsp. holarctica BD11-00177
Author(s) Coolen, J.P.M. ; Sjödin, A. ; Maraha, B. ; Hajer, G.F. ; Forsman, M. ; Verspui, E. ; Frenay, H.M.E. ; Notermans, D.W. ; Vries, M.C. de ; Reubsaet, F.A.G. ; Paauw, A. ; Roeselers, G.
2013 8 3 Pag 539-547 Standards in Genomic Sciences

Rapid identification of bacillus anthracis spores in suspicious powder samples by using matrix-assisted laser desorption ionization-time of flight mass spectrometry (MALDI-TOF MS)
Auteur(s) Dybwad, M. ; Laaken, A.L. van der ; Blatny, J.M. ; Paauw, A.
2013 79 17 Pag 5372-5383 Applied and Environmental Microbiology

Indigenous infection with Francisella tularensis holarctica in The Netherlands
Author(s) Maraha, B. ; Hajer, G.F. ; Sjödin, A.; Forsman, M. ; Paauw, A.; Roeselers, G. ; Verspui, E. Frenay,.M.E. ; Notermans, D.W. Vries, M.C. de ; Reubsaet, F.A.G.
2013 Case Reports in Infectious Diseases

BW agents testing of BBI detection lateral flow tests
Author(s) Paauw, A. ; Laaken, A.L. van der; Voskamp-Visser, A.I.
Report nr TNO 2013 R11251

DIM (Detection Identification and Monitoring) architectuur - Biologisch deel
Author(s) Houwelingen, T. van ; Wuijckhuijse, A.L. van
TNO 2012 R10627

5. Briefly describe the biological defence work carried out at the facility, including type(s) of micro-organisms[9] and/or toxins studied, as well as outdoor studies of biological aerosols.

Development and testing of detection equipment and identification methods using strains of a limited number of category 2 and 3 bacterial pathogens (*Brucella, Francisella, Bacillus, Vibrio, Staphylococcus, Clostridium, Yersinia*) , the bacterial simulants *Erwinia herbicola, Bacillus* spp, and the viral simulants MS2 and Baculovirus. Threat assessment and decontamination testing studies. Some efforts are aimed at development of antibacterial coatings for wound-dressing.

[9] Including viruses and prions.

Analysis of biological warfare agents with advanced mass spectrometry is dealing with low and high molecular weight toxins as well as with bacterial or viral extracts from above mentioned sources.
Filtration and mask leakage testing with the bacterial weapons simulants *Bacillus globigii, Erwinia herbicola* and *Escherichia coli* K12 as well as the viral simulant MS2. All activities are performed in closed facilities of appropriate bio-containment level.

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 agent[10] 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

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

outbreaks (notably outbreaks of infectious diseases and similar occurrences caused by 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 pattern[11]

→ **Data from the Food and consumer Product Safety Authority (VWA)**

Background information on outbreaks of reportable infectious diseases. Animal diseases.

Animal Disease	Number of cases per year				
	2009	2010	2011	2012	2013
Food-and-mouth disease	0	0	0	0	0
Scabies	-	-	-	-	-
Footrot (sheep)	-	-	-	-	-
Anthrax (all cattle)	0	0	0	0	0
Hog cholera	0	0	0	0	0
Pseud. fowl plague	0	0	0	0	0
Fowl cholera	0	1	0	0	0
Atrophic rhinitis	-	-	-	-	-
Rabies	0	0	0	1	0
African Swine fever	0	0	0	0	0
American foul brood	0	0	0	0	0
Infectious anaemia	0	0	0	0	0
Rabies (bats)	11	10	8	15	4
Salmonella enteritidis	19(until Sept 2009)	64	35	23	18
Bovine Spongiform Encephalopathy	0	2	1	0	0
Vesicular swine fever	0	0	0	0	0
Avian Influenza Highly Pathogenic	0	0	0	0	0
Avian Influenza LP	0	0	4	3	6
Bluetongue	0	0	0	0	0
Psittacosis	56	38	38	42	34
Tuberculosis in mammals(cattle)	0	6	4	1	4
Q-fever in dairy goats/dairy sheep	61	31	8	1	0

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

→ **Data from the National Institute for Public Health and the Environment (RIVM)**

For up to date information please see: http://www.rivm.nl/en/Topics/M/Measles

1. Time of cognizance of the outbreak
   End of May 2013

2. Location and approximate area affected
   The Netherlands

3. Type of disease/intoxication
   Measles

4. Suspected source of disease/intoxication
   Imported case

5. Possible causative agent(s)
   Morbilli virus

6. Main characteristics of systems
7. Detailed symptoms, when applicable
   a. respiratory
      cough, conjunctivitis, coryza
   b. circulatory
      none
   c. neurological/behavioural
      none
   d. intestinal
      diarrhoea
   e. dermatological
      rash
   f. nephrological
      none
   g. other
      Fever
8. Deviation(s) from the normal pattern as regards
   a. Type
      Measles outbreaks among unvaccinated people occur occasionally in the Netherlands, but the current outbreak is relatively large.
   b. development
   c. place of occurrence
      See figure 1 below
   d. time of occurrence

Start: end of May 2013 (Fig. 2)

e. symptoms
rash, fever, cough, coryza

f. virulence pattern
not relevant

g. drug resistance pattern
not relevant

h. agent(s) difficult to diagnose
not relevant

i. presence of unusual vectors
Not relevant

j. other
High number of cases

9. Approximate number of primary cases
<10

10. Approximate number of total cases
+/- 2603 confirmed and epidemiologically linked cases (Feb 18th 2014)

11. Number of deaths
One death was reported and confirmed

12. Development of the outbreak
The outbreak peaked in July 2013, with a smaller peak after the school holidays (Fig 2).

13. Measures taken
    i. **Routine measures for measles were continued (contact tracing and catch-up vaccination around cases).**
    ii. **All individuals below 18 years of age who are not vaccinated against measles were recommended to get vaccinated.**
    iii. **Children below 14 months of age with an increased risk of contracting measles were offered an extra vaccination against measles, mumps and rubella (MMR vaccine)**

Fig. 1 Notified measles cases by municipality, The Netherlands, 1st May 2013 – 12th February 2014 (n=2628)

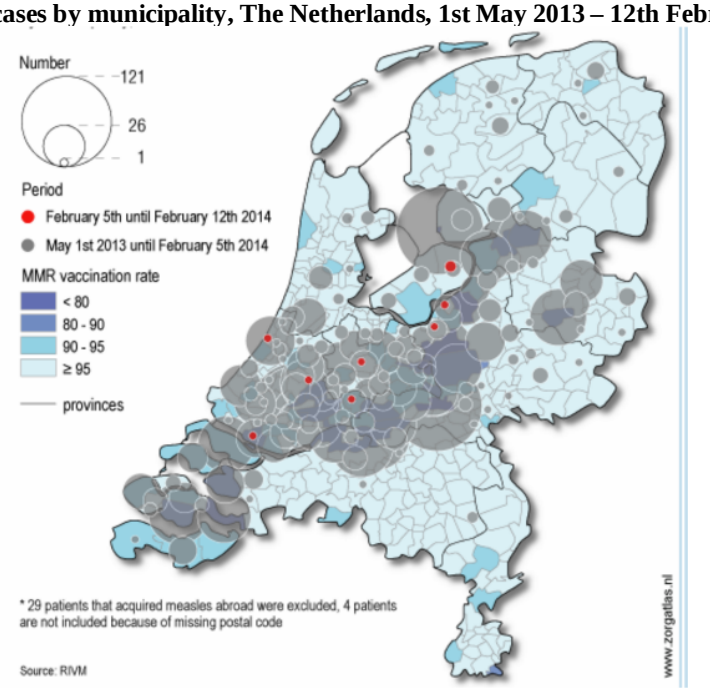
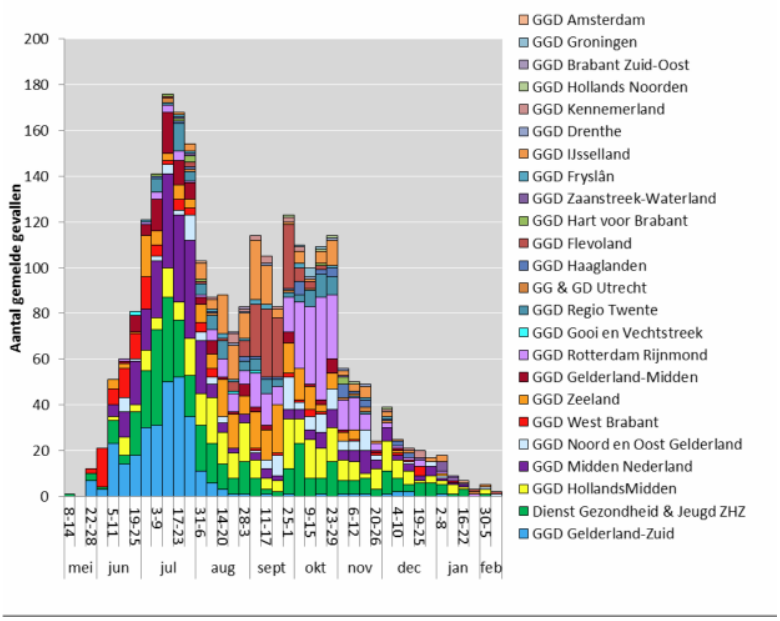


Fig. 2 Notified measles cases by week of onset and Municipal Health Service region, The Netherlands, 1st May 2013 – 12th February 2014 (n=2628)



→ **Data from the National Institute for Public Health and the Environment (RIVM)**

Notifications per infectious disease per year (2013 data as available on Feb 18th 2014)	2007	2008	2009	2010	2011	2012	2013
Antrax	0	0	0	0	0	0	0
Mumps	0	7	32	567	672	392	205
Botulism	1	7	0	0	0	2	0
Brucellosis	5	8	4	6	1	3	5
Typhoid fever	22	29	20	33	16	20	24
Cholera	3	5	3	1	3	3	0
Diphtheria	0	0	0	0	1	1	0
Yellow Fever	0	0	0	0	0	0	0
Hantavirus	0	0	8	18	8	23	4
Hepatitis A	168	183	176	274	134	120	103
Hepatitis B	1786	1865	1944	2006	1956	1396	1143
Poliomyelitis	0	0	0	0	0	0	0
Pertussis	7374	8704	6503	4337	7547	13182	3074
Legionellosis	325	341	240	477	355	289	298
Leptospirosis	37	37	25	30	34	44	26
Listeriosis	0	3	47	74	96	63	72
Malaria	210	225	243	251	276	185	151
Measles	4	109	11	21	52	10	2603
Meningitis cer. Epimedica	195	162	153	153	112	102	104
Paratyphoid fever A	10	10	12	24	14	23	15
Paratyphoid fever B	21	26	14	17	28	16	15
Paratyphoid fever C	2	1	3	0	1	3	1
Plague	0	0	0	0	0	0	0
Smallpox	0	0	0	0	0	0	0
Psittacosis	52	85	72	72	88	42	44
Q fever	132	1013	2317	547	94	64	17
Rabiës	0	1	0	0	0	0	1
Rubella	4	2	7	0	3	1	58
Shigellosis	384	356	465	573	626	714	443

→ **Data from the Erasmus MC Rotterdam Laboratory for Infectious Diseases**

1. Time of cognizance of the outbreak
   NA
2. Location and approximate area affected
   NA
3. Type of disease/intoxication
   NA
4. Suspected source of disease/intoxication
   NA
5. Possible causative agent(s)
   NA
6. Main characteristics of systems
   NA
7. Detailed symptoms, when applicable
   NA
8. Deviation(s) from the normal pattern as regards
   NA
9. Approximate number of primary cases
   NA
10. Approximate number of total cases
    NA
11. Number of deaths
    NA
12. Development of the outbreak
    NA
13. Measures taken
    NA

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.

→ Data from the TNO Defence, Security and Safety and Ministery of Defence

Encouragement of publication of results and promotion of use of knowledge

- In general, the Dutch Ministry of Defence (MoD) encourages publication of results and the promotion of knowledge.
- Results obtained are subject to consent of the Managing Director of TNO, Defence, Safety and Security – the institute that carries out BW research on behalf of the MoD. Furthermore, publication is only allowed after consent by the MoD.
- Scientific publications can be obtained from the sources. As far as relevant, data are published in (inter)national scientific manuals, peer-reviewed journals and magazines.
- Where appropriate IPR, will be protected by patents.

→ Data from the National Institute for Public Health and the Environment (RIVM)

The National Institute for Public Health and the Environment (RIVM) is a recognized leading centre of expertise in the fields of health, nutrition and environmental protection. The RIVM works mainly for the Dutch government. The RIVM plays a central role in information exchange with local health services, among other through a national infectious disease bulletin, electronic surveillance systems

(for notifiable and voluntarily monitored diseases), yearly seminars targeted and an electronic rapid alert system.
Studies carried out by the National Institute of Public Health and the Environment are published in the public domain (www.rivm.nl.) The dual-use aspect of publications was assessed as described in the Dutch Code of Conduct, as well as in the advisory report of the KNAW 'Improving biosecurity; assessment of dual-use research'.
Besides the above mentioned the RIVM develops and exploits its international knowledge base in various ways:

- International research and projects.
- Contributions to international conferences and publications.
- Activities on behalf of international clients such as the European Commission and its agencies, the World Health Organization (WHO) and the Organization for Economic Cooperation and Development (OECD). RIVM plays an active part in the WHO Collaborating Centres.
- Activities further to formal agreements between the Netherlands and other countries, including 'twinning'-programs designed to provide specific assistance, and collaboration with RIVM's sister organizations in other countries.
- Participation in several UNICRI-projects that aim to strengthen the CBRN-resilience within the field of biosafety and biosecurity through the development of a laboratory information system for research facilities and hospitals in Southeast Asia. Education in biosecurity awareness and biosecurity management are provided in train-the-trainer programs in South East Asia as well as in countries in Northern Africa, including Uganda, South East Europe and Southern Caucasus.
- Participation in ongoing actions of the EU CBRN-action plan.
- Membership of international professional organizations.

Biosecurity office
The Dutch government has initiated a national project with the goal to install a coordinated Biosecurity Regime, in order to decrease the threat of bioterrorism. As a pilot, the Netherlands Biosecurity office was started at the RIVM, an office where ministries and institutes can get relevant information.
To enhance biorisk management inside organizations working with hazardous biological materials a Biosecurity Toolkit was developed by the biosecurity office.
This toolkit consists of two parts:

- The first part is a self-assessment module to identify potential gaps in the biosecurity regime inside an organization
- The second part consists of the related legal basis and a set of good practices to improve the level of biosecurity.

The toolkit addresses eight categories: awareness, personnel reliability, transport security, information security, accountability for materials, incident response, management, and physical measures.
The toolkit is available for free on http://www.biosecuritytoolkit.com and is available in English. The RIVM has presented this toolkit during the annual meeting of states parties of the BTWC 2013.

→ **Data from the Central Veterinary Institute (CVI)**

- The Central Veterinary Institute is performing statutory tasks for the ministry of Agriculture, Nature and Food Quality.

- The Netherlands has legal obligation on publication of results of scientific research.

- There are no restrictions whatsoever on the publication of results of scientific research.

- Publication takes place in (inter)national scientific manuals, journal, magazines and other
- sources.

→ **Data from the Erasmus MC Rotterdam**

The default policy in the department of viroscience is that all research will be published in peer-reviewed journals.

→ **Data from the Ministry of Infrastructure and Environment (IenM)**

At the ministry of Infrastructure and Environment (IenM) has no influence in whether or not the result of scientific research related to the Convention is published, IenM does not need to classify or unclassify any publication, nor can IenM promote any given publication. Of course IenM will take the recommendation of the Third Review Convention into consideration in the eventuality of any publication in the future.

→ **Data from Abbott Biologicals BV**

Abbott biological BV does not execute any basis research, only clinical studies for the annual update for our influenza vaccine.

→ **Data from Crucell Holland BV**

Crucell very much encourages the publication of results of scientific research. Crucell has a general procedure for publication of abstracts, manuscripts, presentations, press releases and any other form of communication of scientific or clinical development result. This procedure ensures, amongst others, consistent language, style, and adequate media content of final publication, adherence to corporate strategy and identity, scientific soundness, statically correctness of the conclusions and identification of possible IP issues. Scientific publications of Crucell can easily be retrieved from its website (see www.crucell.com, heading “R&D” followed by “Scientific publications”.

→ **Data from DSM Biologics Company B.V.**

Not applicable, due to DSMB not publishing about our client’s products and in view of client confidentiality.

→ **Data from Intervet/MSD Animal Health**

MSD Animal Health believes in science for healthier animals, and as a research driven organisation, encourages publication of scientific research.

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 or not there has been any amendment to their legislation, regulations or other measures.

→ **Data from Ministry of Defence**

The Dutch Ministry of Defence complies to civil legislation, regulations and other measures related to the topics (a) to (d) below, and has issued no additional legislation, regulations or measures on these topics.

Relating to	Legislation	Regulations	Other measures[12]	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	No	No	No	No
(b) Exports of micro-organisms[13] and toxins	No	No	No	No
(c) Imports of micro-organisms[11] and toxins	No	No	No	No
(d) Biosafety[14] and biosecurity[15]	No	No	No	No

[12] Including guidelines.
[13] Micro-organisms pathogenic to man, animals and plants in accordance with the Convention.

→ **Data from the Ministry of Infrastructure and Environment (IenM)**

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	No	No	No	N.A.
(b) Exports of micro-organisms[17] and toxins	No	No	No	N.A.
(c) Imports of micro-organisms[11] and toxins	No	No	No	N.A.
(d) Biosafety[18] and biosecurity[19]	Biosafety: Yes Biosecurity: No	Biosafety: Yes Biosecurity: No	Biosafety: Yes Biosecurity: No	No

General remark to the above table:
The ministry of Infrastructure and Environment (IenM) is responsible for legislation related to the handling, use and making of genetically modified organisms (GMO). The objective of the GMA Decree is to ensure an adequate level of protection in the field of the safe handling and use of GMOs that may have adverse effects on the environment and human health or the environment. It deals with both the contained use and introduction into the environment of GMOs. The Decree implements the European Directives 2009/41/EC and 2001/18/EC on the contained use and the deliberate release into the environment of GMOs, respectively. Where appropriate, the decree requires advanced written consent from competent authorities before activities with GMOs may be conducted. On the basis of information gathered by government as a result of the procedures of the Decree, it is possible to pinpoint which GMOs are being handled by research facilities and at which location. The level of detail varies for different categories, but for pathogenic microorganisms comprehensive information is available to the competent authority. This legislation has not been modified in 2013.

The legislation can be found (in Dutch) at: http://wetten.overheid.nl/BWBR0004730.

→ **Data from Ministry of Social Affairs and Employment (SZW)**

Relating to	Legislation	Regulations	Other	Amended since

[14] In accordance with the latest version of the WHO Laboratory Biosafety Manual or equivalent national or international guidance.
[15] In accordance with the latest version of the WHO Laboratory Biosecurity Guidance or equivalent national or international guidance.
[16] Including guidelines.
[17] Micro-organisms pathogenic to man, animals and plants in accordance with the Convention.
[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.

			measures[20]	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	No	No	No	No
(b) Exports of micro-organisms[21] and toxins	No	No	No	No
(c) Imports of micro-organisms[11] and toxins	No	No	No	No
(d) Biosafety[22] and biosecurity[23]	No	No	No	No

[20] Including guidelines.
[21] Micro-organisms pathogenic to man, animals and plants in accordance with the Convention.
[22] In accordance with the latest version of the WHO Laboratory Biosafety Manual or equivalent national or international guidance.
[23] In accordance with the latest version of the WHO Laboratory Biosecurity Guidance or equivalent national or international guidance.

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.

→ **Data from the TNO Defence, Security and Safety and Ministery of Defence**

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

22 June 1981

2. Past offensive biological research and development programmes:

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

3. Past defensive biological research and development programmes:

Yes

- Period(s) of activities

From mid 1980s up to present

- 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.

The increasing importance of BW defence has generated research efforts in all aspects of passive BW defence (threat assessment, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection and identification, physical protection and decontamination). All of this work is of defensive nature, it involves concept development and evaluation of concepts and products. For that purpose TNO has BSL facilities, strain collections. This all fall under running assignments of the NL government of the European Defence Agency.

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.

→ **Data from Central Veterinary Institute (CVI)**

1. Name of facility:

   Central Veterinary Institute, part of Wageningen UR

   FMDV vaccine production unit

   NB: The FMDV vaccine production unit is leased since 2009 to Merial SAS, Lyon, France, with permission of the Dutch Government.

2. Location (mailing address):

   Houtribweg 39, P.O. Box 65, 8200 AB Lelystad, the Netherlands

3. General description of the types of diseases covered:

   Foot and Mouth Disease antigen production for vaccine production

→ **Data from Erasmus MC Rotterdam – Laboratory for infectious diseases**

1. Name of facility: **Erasmus Medical Centre**

2. Location (mailing address**):**
   s'Gravendijkwal 230, 3015 CE Rotterdam, The Netherlands

3. General description of the types of diseases covered:
   Diseases caused by Viruses

→ **Data from Abbott biologicals BV**

1. Name of facility: **WWP/WWY**

2. Location (mailing address):

   C.J. van Houtenlaan 36 **P.O. Box 900**

   1380 DA Weesp **1380 DA Weesp**

   The Netherlands **The Netherlands**

3. General description of the types of diseases covered:

   Influenza (human)

→ **Data from Bilhoven Biologicals BV (BBio)**

1. Name of facility: **Bilthoven Biologicals B.V. (BBio)**

2. Location (mailing address):

   Antonie van Leeuwenhoeklaan 9-13

   Postbus 457

   3720 AL Bilthoven

   Netherlands

   www.bilthovenbiologicals.nl

3. General description of the types of diseases covered:
   - **Diphtheria**
   - **Tetanus**
   - **Poliomyelitis**

→ **Bladder cancer Data from Boehringer Ingelheim Animal Health Operations BV**

1. Name of facility: **Boehringer Ingelheim Animal Health Operations BV**

2. Location (mailing address):

   C.J. van Houtenlaan 36
   1381 CP Weesp
   The Netherlands

3. General description of the types of diseases covered:
   BSL1 – 3 for animal vaccines after takeover to be developed. Not yet known.

→ **Data from Crucell Holland BV**

1. Name of facility: **Crucell Holland BV**

2. Location (mailing address):

   PO Box 2048

   2301 CA Leiden

   The Netherlands

3. General description of the types of diseases covered:

- **Hepatitis A**
- **Hepatitis B**
- **Influenza**
- **Childhood diseases (Diphtheria, Pertusis, Tetanus, Hep. B and Haemophilus influenza type B)**
- **Measels**
- **Rubella**
- **Typhoid fever**
- **Diarrhea (Cholera)**

→ **Data from DSM Biologics Company BV**

1. Name of facility: **DSM Biologics Company B.V.**
2. Location (mailing address): **P.O. Box 454, 9700 AL Groningen**
3. General description of the types of diseases covered:

   DSM Biologics Company is a contract manufacturer that produces antibodies and recombinant proteins for sponsors, who demand our confidentiality on their product information. Therefore this information should be handled accordingly.

   The proteins manufactured at our facility are aimed at treating or diagnosing general diseases such as inflammatory diseases, cancer, metabolic or genetic disorders. Currently, no proteins for vaccine production are manufactured.

→ **Data from Intervet/MSD Animal Health**

1. Name of facility:
   Intervet International bv, also known as MSD Animal Health

2. Location (mailing address):
   Postbus 31
   5830 AA Boxmeer
   The Netherlands

3. General description of the types of diseases covered:
   Common animal pathogens, including bacteria, protozoa and viruses