



Public Health  
England

Protecting and improving the nation's health

# **International Health Regulations**

## **Activity of the UK National Focal Point from 2012 to 2016**

# About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health, and a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner.

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## Abbreviations

CD	Crown Dependency
DA	Devolved Administration
DG	Director-General
DH	Department of Health
EC	European Commission
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EIS	WHO IHR Event Information Site
EU	European Union
EVD	Ebola Virus Disease
EWRS	Early Warning Response System
HPA	Health Protection Agency
HPT	Health Protection Team
IHR	International Health Regulations
MERS-CoV	Middle East Respiratory Syndrome
MS	Member States
NFP	National Focal Point
NIS	National Infection Service
OT	Overseas Territory
PHE	Public Health England
PHEIC	Public Health Emergency of International Concern
SARS	Severe Acute Respiratory Syndrome
SSC	Ship Sanitation Control Certificate / Ship Sanitation Control Exemption Certificate
TB	Tuberculosis
TMHS	Travel and Migrant Health section
UK	United Kingdom
USA	United States of America
VHF	Viral Haemorrhagic Fever
WHO EURO	WHO Regional Office for Europe
WHO	World Health Organization

# Background

## The International Health Regulations

The International Health Regulations (IHR) are an international legal instrument agreed on by 196 countries that aims to 'help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide' [1]. The IHR were formulated in 1969 and considerably revised in 2005. The revised Regulations came into force on Friday 15 June 2007 [1]. This report marks 10 years of IHR activity in the UK, since the launch of the revised Regulations, and follows from 2 previous IHR activity reports, which cover activity between 2007 and 2011 [2,3]. The report focuses on the activity of the UK IHR National Focal Point (NFP), which constitutes only one area of activity in the UK under IHR (2005) requirements.

Under IHR (2005), countries are required to build and maintain national capacity for surveillance and response to public health events. This capacity should allow countries to notify WHO of all events that may constitute a Public Health Emergency of International Concern (PHEIC) and rapidly share information about such events. PHEICs can only be declared by the WHO Director-General (DG) after convening an Emergency Committee to assess the event, and this may result in temporary recommendations concerning public health responses. Under IHR (2005), countries are also required to implement recommended measures issued by WHO.

When deciding whether to communicate a potential PHEIC to WHO, countries are aided by the IHR (2005) set code of practices. While some diseases must always be notified to WHO (smallpox, wild-type polio, new subtypes of human influenza and severe acute respiratory syndrome, SARS), other events (which may be biological, radiological or chemical in nature) can be assessed using a decision instrument (Annex 2 of the IHR (2005)). There is a further list of diseases (cholera, pneumonic plague, yellow fever, viral haemorrhagic fevers, West Nile fever and other diseases that are of special national or regional concern) that shall always lead to the use of the decision instrument in Annex 2 and be notified to WHO under IHR should they fulfil the criteria. An event is classified as a potential PHEIC if it satisfies at least 2 of the risk assessment criteria in Annex 2 of IHR (2005), and therefore must be notified to WHO. The criteria are:

- it has serious public health impact
- it is unusual or unexpected
- there is a risk of international disease spread
- the event could interfere with international traffic or trade

There are 2 main channels through which WHO communicates information about PHEICs and other public health events to countries: through the IHR events information website (EIS) and directly through the countries' NFPs.

### IHR Event Information Site (EIS)

The IHR Event Information Site (EIS) is a restricted access online platform that all country NFPs have access to. The website is used by WHO to post information about public health events, including but not exclusively PHEICs, as well other important announcements relevant to IHR (2005). All events that are posted on EIS are assessed by the UK IHR NFP and categorised according to the potential implications of the event to UK residents (see Methods section).

### National Focal Points (NFPs)

Under IHR (2005), countries are required to designate an NFP to be accessible at all times for communications with the WHO Regional IHR Contact Points. Communications with WHO IHR contact points are managed exclusively through the national IHR NFP. The NFP has a duty to assess any events that may potentially be a PHEIC and notify them to WHO, as well as reply to WHO when information is requested. Table 1 summarizes the types of communications between NFP and WHO under IHR (2005).

The UK Governments have designated Public Health England (PHE), formerly the Health Protection Agency (HPA), as the UK's IHR NFP. The role of the UK NFP is to assess potential PHEICs in any part of UK territory, including the Overseas Territories (OTs), Crown Dependencies (CDs) and Devolved Administrations (DAs) (see Appendix A), in collaboration with relevant national experts, public health authorities and Department of Health (DH), as well as to notify them to WHO. A joint protocol has been developed between DH and PHE for the assessment and reporting of potential PHEICs by the NFP [4].

The activities of the UK IHR NFP are undertaken by a number of medical, scientific and administrative staff within the National Infections Service (NIS) at PHE (Colindale), coordinated by the Travel and Migrant Health section (TMHS). The UK IHR NFP mailbox ([ihr@phe.gov.uk](mailto:ihr@phe.gov.uk)) is monitored by TMHS during working hours, supported by a network of duty scientists from other PHE teams. Out of working hours the mailbox is monitored by the PHE duty director. WHO may also contact the UK IHR NFP through the PHE duty doctor phone if there is an emergency.

**Table 1.** Types of communications between National Focal Points (NFPs) and the World Health Organization (WHO) under the International Health Regulations (IHR) (2005)

IHR article(s)	Type of communication
<b>6</b>	NFPs to notify WHO of all events which may constitute a PHEIC within the country's territory, in accordance with the decision instrument, as well as any health measure implemented in response to those events, within 24 hours of assessment of public health information.
<b>8</b>	NFPs to inform WHO of events occurring within the country's territory not requiring notification as provided in Article 6, in particular those events for which there is insufficient information available to complete the decision instrument.
<b>9</b>	NFPs to inform WHO within 24 hours of receipt of evidence of a public health risk identified outside their territory that may cause international disease spread, as manifested by exported or imported (a) human cases; (b) vectors which carry infection or contamination; or (c) goods that are contaminated.
<b>10</b>	Response to WHO requests for verification of events allegedly occurring in the UK identified by WHO from other sources.
<b>11.3</b>	Response to WHO requests to approve information that WHO intend to publish about an event occurring in the UK on the Events Information Site
<b>19-21</b>	Maintaining a list of UK sea ports authorised to issue ship sanitation certificates and communicating any changes to the list to WHO

PHEIC: Public Health Emergency of International Concern

This report provides an overview of the activities of the UK IHR NFP between 1 January 2012 and 31 December 2016. It updates the previous reports which focused on the first 5 years of IHR (2005) implementation by detailing activities from 2007 to 2011 [2,3]. As 2017 marks the 10 year anniversary of the updated IHR (2005), this report is an opportunity to look at the work of the UK NFP and reflect on how it changed over this decade.

# Methods

## Data from EIS

EIS is checked at least twice a day by a duty scientist/information officer in working hours. Any events that are posted on EIS are assessed by the duty scientist and a senior IHR staff member and are categorised into 4 response levels depending on the potential implications of the event to residents within UK territory.

1. Level 0: No response required
2. Level 1: For information only
  - Event has no immediate implication for residents within UK territory and is therefore communicated for information only to epidemiological and government representatives within all parts of UK territory
3. Level 2: Information requested
  - Event may have potential implications for residents within UK territory and information about any cases within UK territory linked to the event has been requested by either WHO or the country where the event is occurring. This information is communicated as above to epidemiological representatives within all parts of UK territory.
4. Level 3. Action required.
  - Event posted has resulted in WHO recommending an action such as withdrawal of a product or public health measures such as vaccination. Information about such events is discussed with DH before disseminating to epidemiological and government representatives within all parts of UK territory to coordinate recommended actions.

Once the response level has been agreed between the duty scientist and senior IHR staff member, the information is communicated as above from the UK IHR NFP email address. Each event, and its relevant UK response, is recorded in a database for activity monitoring.

## NFP communications

Direct communications with the UK IHR NFP are done via email. All emails on the UK IHR NFP inbox that are related to a public health event are categorised and stored in a database for activity monitoring and reporting. The emails are classified into the following categories.

1. Communications with WHO (further classified according to the article involved – see table 1).

2. Communications with UK bodies about events reported by WHO through EIS and through the IHR NFP email
3. Communications with other countries' NFPs with regards to contact tracing events<sup>1</sup>; these were categorised into 2 groups:
  - Communications regarding travellers who have been ill or in contact with illness in another country and have returned or are expected to arrive in the UK
  - Communications regarding travellers who have been ill or in contact with illness in the UK and have returned or are expected to arrive in another country

In addition to direct communications with WHO, the IHR NFP has increasingly been used by countries to communicate directly with each other about incidents that may require contact tracing (category 3 in the above list). To reflect this increased traffic, TMHS decided to log and track contact tracing emails. Starting in 2014, contact tracing emails, whether initiated in the UK or by another country, were allocated an identification number and logged into a database, recording basic details (parties involved, a summary of the incident and actions). Detailed analysis of contact tracing emails in this report therefore focuses only on emails from January 2014 to December 2016.

In addition to contact tracing emails received via the IHR NFP inbox, the log is also used to track contact tracing requests received by the European Early Warning and Response System (EWRS). EWRS is used by the European Commission, European Union (EU) Member States (MS) and the European Centre for Disease Prevention and Control (ECDC). European Economic Area (EEA) countries - Iceland, Liechtenstein and Norway - are also linked to the system. Under Decision 2119/98/EC [5] and Decision 2000/57/EC [6] of the European Parliament and of the Council of 24 September 1998, MS are required to exchange information on relevant public health events that fulfil the reporting criteria. EWRS is used to send alerts about events with a potential impact on the EU, share information, and coordinate appropriate responses. This includes communication between MS on contact tracing issues. Contact tracing messages sent and received by EWRS have been included in the final analysis (about contact tracing) to accurately represent the volume of contact tracing activities from the UK IHR NFP. Contact tracing activities can be initiated by either the IHR or EWRS route dependent on the country involved, before being channelled through the appropriate platform by the UK NFP team.

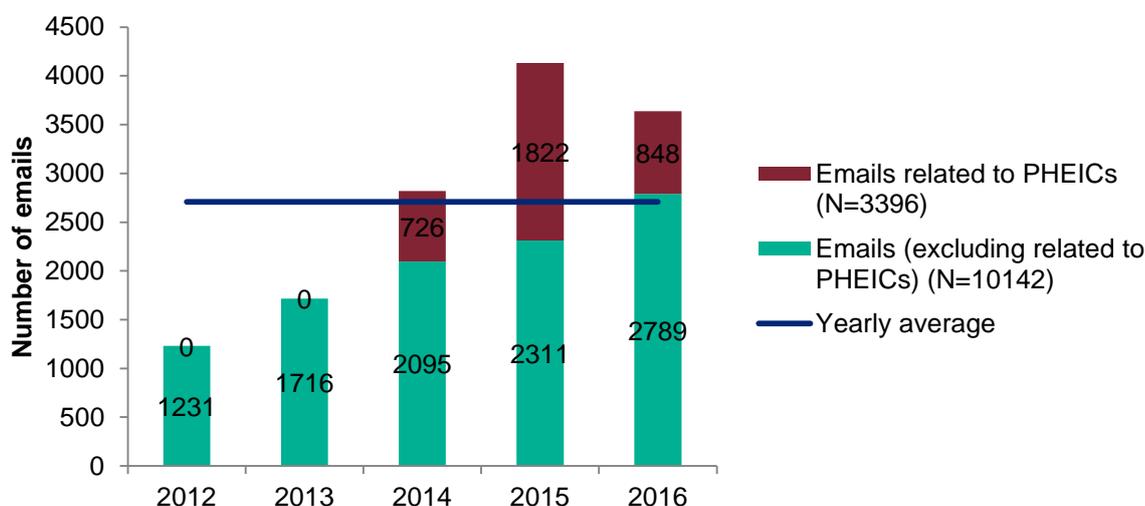
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<sup>1</sup> Communications regarding contact tracing involve assessment of the situation with other countries' NFPs, with local HPTs and with other PHE teams to determine whether contact tracing is in fact needed, as well as contact tracing activities.

## Results

### Total email traffic

A total of 13,538 emails (Figure 1) were sent and received by the UK NFP between January 2012 and December 2016, which represents an average of 2,708 emails per year. These include all emails, including classified and unclassified emails, and all contact tracing communications.



**Figure 1. Total email traffic (all emails sent and received) by the UK National Focal Point between January 2012 and December 2016.**

Between 2012 and 2016 WHO declared three PHEICs. Email traffic related to the response to these PHEICs (shown in red in Figure 1) contributed to the increase in traffic in this period.

The first PHEIC in this period was declared in May 2014 in response to the international spread of wild poliovirus in the context of the global polio eradication initiative [7]. A few months later, in August 2014, WHO declared its second PHEIC in response to a widespread outbreak of EVD in West Africa [8]. The first cases were recorded in Guinea in December 2013, before spreading to neighbouring countries, predominantly Liberia and Sierra Leone. Imported cases were reported as widely as USA and Europe, including the UK [9]. The number of cases in West Africa peaked in October 2014 and, following significant international efforts, began to decline during the next 18 months. As of June 2016, WHO reported a total of 28,616 cases including 11,310 deaths across Guinea, Liberia, Sierra Leone [10], but it believes that this substantially underestimated the magnitude of the outbreak. WHO declared an end to the PHEIC in March 2016 [11]. Between 2014 and 2016, 2,525 emails sent and received by the UK NFP were related to Ebola virus disease (EBV). The IHR team were involved in the UK response by

circulating information to the UK territory, leading on communications with WHO regarding cases in UK residents and supporting local PHE Health Protection Teams (HPT) with contact tracing in response to cases imported to the UK.

The most recent PHEIC was declared in February 2016 in response to clusters of microcephaly cases and other neurological disorders associated with an ongoing outbreak of Zika virus disease [12]. The declaration was lifted in November 2016 but WHO highlighted that this was an area that required ongoing international effort [13]. In 2016, 778 emails were sent and received by the UK NFP regarding Zika. This included supporting UK OTs that were required to report their first locally-acquired cases. All but one of the OTs in the Caribbean were affected by Zika.

### Communications with WHO under IHR (2005)

Between 2012 and 2016, the UK NFP reported 52 events to WHO under IHR (2005). Most of these were potential PHEICs in UK territory (Articles 6 and 8). Of the 27 potential PHEICs in UK territory reported to WHO between 2012 and 2016, one-third (9) were reported on behalf of the UK OTs, all of these related to wide-scale international outbreaks (first locally-acquired cases of Chikungunya and first locally-acquired cases of Zika). Of the 27 events reported under Articles 6 and 8, 7 were related to the EVD and Zika PHEICs.

Over 1,300 emails were sent and received to the IHR inbox specific to these 52 events in order to compile the information to report to WHO. A full breakdown of the events reported under each article can be found in Appendix B.

**Table 2.** Number of reports and notifications to the World Health Organization (WHO) under the International Health Regulations (IHR) (2005) by the UK National Focal Point (NFP) between 2007 and 2016

IHR Article	Definition	Reports / notifications 2007 to 2011	Reports / notifications 2012 to 2016
6	Potential PHEIC in UK territory	2	23
8	Potential PHEIC in UK territory but insufficient information for notification	9	4
9	Potential PHEIC outside UK territory	4	1
10	Verification request from WHO about unofficial report	13	10
11.3	Approval request from WHO to publish event on EIS	6	14
<b>Total</b>		<b>34</b>	<b>52</b>

Of the 52 events reported to WHO by the UK NFP under IHR between 2012 and 2016, 50 (96%) were related to infectious diseases. This included all potential PHEICs in UK

territory reported under Articles 6 and 8. The 2 remaining events were both chemical related; one related to sodium nitrite poisoning and the other to a death related to the use of unlicensed diet pills. There were no radiological events reported to WHO by the UK NFP under IHR (2005) during this period.

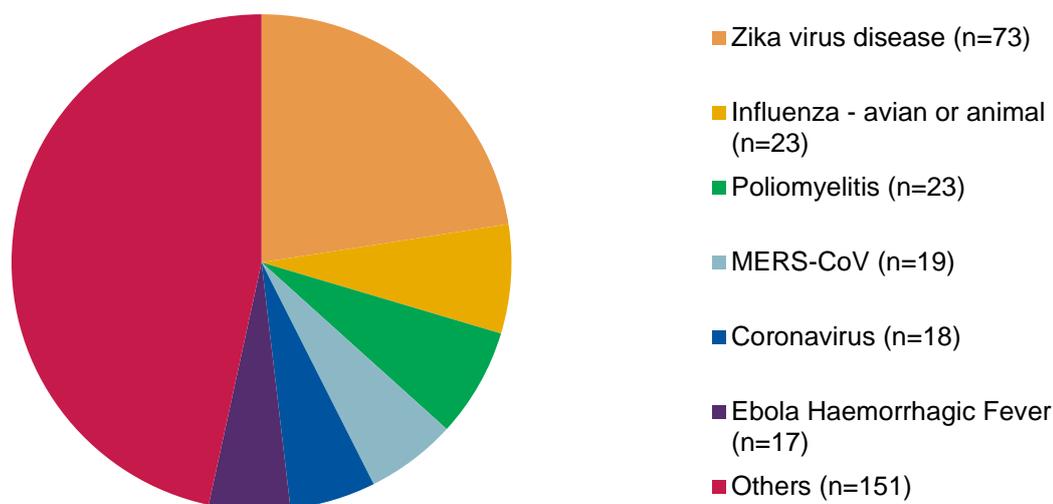
### IHR Event Information Site (EIS)

As described in the methods section, events posted on IHR EIS are categorised into four levels. Between 2012 and 2016, 341 events (with 1,198 updates allocated to different events) were posted on EIS by countries involved in IHR. The majority were classified as Level 1, and the event was cascaded for information only.

**Table 3.** Events posted on the Events Information Site (EIS) between 2007 and 2016 by category level

Level	Definition	Number of events
0	No response required	1
1	For information only	334
2	Information requested	4
3	Action requested	2
<b>Total</b>		<b>341</b>

Of the 341 events posted in EIS between 2012 and 2016, 94% were related to infectious diseases, including 51 different diseases and disease groups. However, almost 70% of these events focussed on a subset of 10 diseases (Figure 2). Only 19 events were related to other types of hazards: two ‘Chemical’, three ‘Undetermined’ and 14 ‘Product-related’ (typically contaminated medication or food supplements).



**Figure 2.** Number of events posted Events Information Site (EIS) between 2007 and 2016 according to infectious disease it concerned.

Between 2012 and 2016, 4 events were assessed as level 2 (requesting information):

1. Hungary (2012): Potential outbreak of *Salmonella* Stanley infections with over 100 cases detected across Belgium, Germany and Hungary. No probable source of infection had been identified at the time of the report. The information was shared with other countries to determine if other cases had been identified.
2. UK (2012) - Outbreak of Legionnaires' disease in Edinburgh linked to industrial cooling towers. As the area is visited by international travellers, other countries were asked to report cases of Legionnaires' disease with travel history to Edinburgh during the relevant time period.
3. South Korea (2012) – Food supplement with suppliers in USA, New Zealand and Europe contaminated with *Salmonella* Oranienburg. Countries were asked to report potentially linked cases in their territory.
4. USA (2015) – Recall of ice cream and other frozen products related to *Listeria monocytogenes*. Countries were asked to report any cases linked to the recalled products in their country.

Two events were assessed as level 3 (advising action to be taken):

5. USA (2013) – Multistate outbreak of Shiga toxin-producing *Escherichia coli* O121 (STEC O121) infections linked to frozen food products. Products from a specific brand were recalled and destroyed.
6. USA (2014) - Recall of probiotic dietary supplement for infants and children due to contamination with *Rhizopus oryzae*.

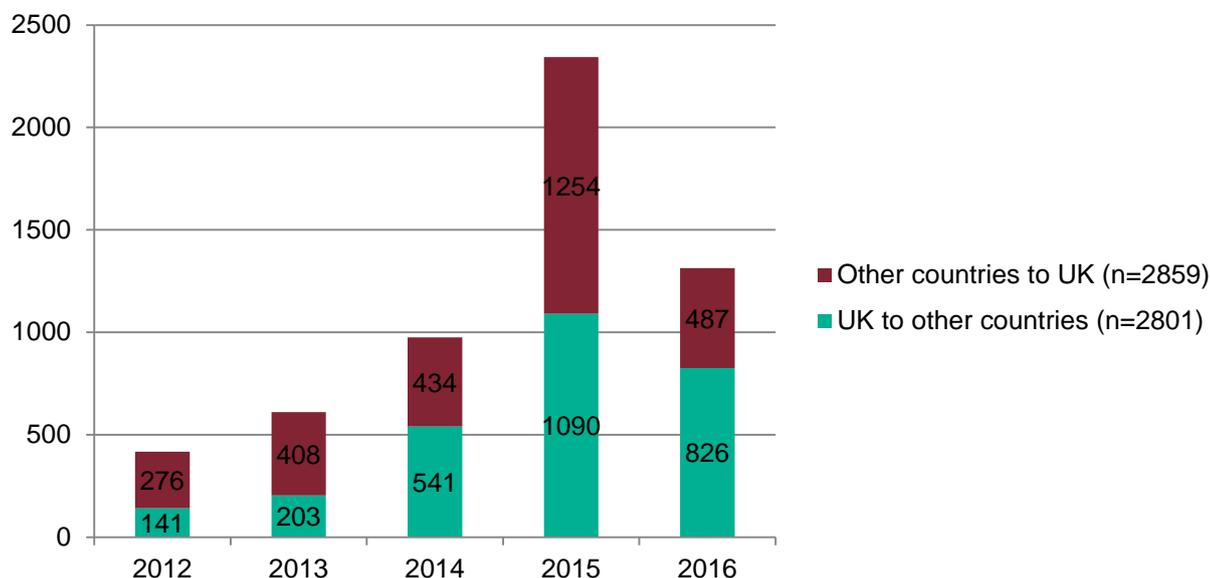
## Contact tracing

Between 2012 and 2016, 5,660 emails were sent and received by the UK NFP regarding contact tracing, with a roughly equal number regarding individuals travelling into the UK and out of the UK (category 3 on the list in the introduction section) (figure 3). A quarter of all contact tracing emails received during this period were related to West African EVD outbreak PHEIC. This includes both IHR and EWRS contact tracing communications.

In response to the increase in emails sent and received by the UK NFP related to contact tracing, the UK NFP began to track contact tracing events received via IHR and EWRS mailboxes separately from all other email traffic in 2014. As described in the methods section, each event is assigned an identification number and logged in a database to track related activity.

There were 218 contract tracing incidents logged between 2014 and 2016 (98 in 2014, 41 in 2015, and 76 in 2016). Two-thirds of these events involved communications with countries outside of Europe. The countries the UK NFP communicated with most

frequently with regards to contact tracing were USA, Australia, France, Canada, Singapore and Spain.



**Figure 3. Number of emails sent and received related to contact tracing between the UK National Focal Point (NFP) and other countries' NFP between 2012 and 2016**

Contact tracing events logged between 2014 and 2016 by the UK NFP were related to 17 different diseases, with 59% specific to tuberculosis (TB), meningitis and measles only.

## Port health

The UK is required, under IHR (2005), to maintain a list of UK sea ports authorised to issue ship sanitation certificates and communicate any changes to the list to WHO. Between 2012 and 2016, a total of 244 emails were sent and received by the UK IHR NFP related to port health functions.

Ship Sanitation Control Certificates / Ship Sanitation Control Exemption Certificates (SSC) are documents issued by authorised ports to identify and record all areas of ship-borne public health risks, together with any required control measures [14]. Under IHR (2005), countries are responsible for authorising ports to issue SSCs and to communicate the list of authorised ports to WHO. Authorised ports must have the capability to inspect, issue and implement (or supervise implementation of) necessary measures for the SSC.

Since IHR (2005) came into force in 2007 and until 16 August 2017, 101 sea ports in UK territory have been authorised to issue SSC (Appendix C). The full list of ports for all countries is published on the WHO website [15].

## Discussion

After 10 years of IHR (2005) coming into force, overall activity of the UK NFP has been gradually increasing. When compared to the first 5 years, between 2007 and 2011, total email traffic increased from 3,379 [2,3] to 13,538 in the second 5 years, between 2012 and 2016, a 4-fold increase. Events notified to WHO by the UK NFP also increased from 34 in the first five years [2,3] to 52 in the second 5 years. A total of 341 events were posted on EIS between 2012 and 2016, almost double of what was posted in the previous 5 years (191 events). However, most of the increase in activity of the UK NFP has been a consequence of the increase in direct communications with other countries regarding contact tracing events. For example, in 2008 there were 9 incidents that required contact tracing activities [2], while in 2016 this number increased to 76.

The UK experience suggests that communications between countries has increased since the implementation of the IHR (2005). Rapid communications between countries means that international spread of disease can be limited by making sure anyone exposed to an infectious disease in one country can be traced and offered appropriate support in another country. This suggests the implementation of IHR (2005) is successfully achieving its aim to improve global communication about public health events.

Most of the UK NFP activity happens via email communications, which are described in this report, but often communications occur by telephone or teleconferences when more detailed discussions are required. These are not logged and so are not described in this report.

The dominance of events focussed on infectious disease suggests engagement is strongest in this area but it is difficult to assess whether the frequency of chemical and radiation events is mis-represented by the number reported to WHO. The UK works closely with colleagues across PHE to ensure events across the scope of IHR (2005) are reported.

A recent publication by WHO to mark 10 years of IHR (2005) [16] highlighted that full implementation of the IHR (2005) must be the urgent goal of all countries and that all relevant stakeholders must support IHR (2005) implementation, especially in the establishment and/or maintenance of the required core capacities in countries. The UK IHR NFP continues to refine its processes working with stakeholders within PHE (locally and nationally), with DH and with others across government to support this work.

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# Appendices

## Appendix A: UK devolved administrations (DA), crown dependencies (CD) and overseas territories (OT)

### Devolved administrations

- Northern Ireland
- Scotland
- Wales

### Crown dependencies

- Guernsey (including Alderney and Sark)
- Isle of Man
- Jersey

### Overseas Territories

- Anguilla
- Bermuda
- British Antarctic Territory
- British Indian Ocean Territory
- British Virgin Islands
- Cayman Islands
- Falkland Islands
- Gibraltar
- Montserrat
- Pitcairn
- St Helena and Dependencies (Ascension Island and Tristan Da Cunha)
- South Georgia and South Sandwich Islands
- Sovereign Base Areas of Akrotiri and Dhekelia in Cyprus
- Turks and Caicos

## Appendix B: Communications between the UK NFP and WHO between 2012 and 2016 according to IHR (2005) article

### Events reported to WHO under IHR (2005) article 6

Between 2012 and 2016, 23 events were reported to WHO by the UK under article 6 of the IHR (2005) (number of related emails shown in square brackets):

- Imported case of Crimean Congo Haemorrhagic Fever acquired in Afghanistan, 2012 [18]
- Novel coronavirus case in the UK with travel history to Qatar and Saudi Arabia, 2012 [69]
- MERS-CoV in Europe (cases in France, Germany, Italy and the UK), 2013 [41]
- Novel coronavirus case in the UK with travel history to Pakistan and Saudi Arabia, 2013 [90]
- First local case of Chikungunya in Bermuda, 2014 [3]
- First local case of Chikungunya in Anguilla, 2014 [56]
- First local case of Chikungunya in British Virgin Islands, 2014 [61]
- First local case of Chikungunya in Cayman Islands, 2014 [4]
- First local case of Chikungunya in Turks and Caicos, 2014 [23]
- Crimean Congo Haemorrhagic Fever in UK following tick bite in Bulgaria, 2014 [8]
- Confirmed case of Ebola in healthcare worker returned from Sierra Leone, 2014 [77]
- Outbreak of Bacillus cereus in neonatal unit, 2014 [5]
- Jordanian MERS-CoV case with previous travel to UK, 2014 [7]
- Relapse of December 2014 UK Ebola case, 2015 [8]
- Investigation of Mycobacterium chimaera infection associated with cardiopulmonary bypass, 2015 [2]
- Meningitis cases in UK residents returning from global Scout event in Japan, 2015 [7]
- Medical evacuation of confirmed UK military Ebola case from Sierra Leone, 2015 [6]
- First locally acquired Zika virus infection in Cayman Islands, 2016 [9]
- First locally acquired Zika virus infection in Anguilla, 2016 [5]
- First locally acquired Zika virus infection in Turks and Caicos Islands, 2015 [11]
- Death of UK chikungunya case with travel to India, 2015 [9]
- Sexual transmission of Zika in UK, 2015 [23]
- First locally acquired Zika virus infection in the British Virgin Islands, 2016 [11]

### Events reported to WHO under IHR (2005) article 8

Between 2012 and 2016, 4 events were reported to WHO by the UK under article 8 of the IHR (number of related emails shown in square brackets):

- Meningitis cases in UK residents returning from global Scout event in Japan, 2015 [7]
- Outbreak of avian influenza A H7N7 in Hampshire, 2015 [1]
- Outbreak of STEC PT 34 in the UK, 2016 [156]
- Cluster of Guillain-Barré syndrome in South East Wales, 2016 [53]

### Events reported to WHO under IHR (2005) article 9

Between 2012 and 2016, one event was reported to WHO by the UK under article 9 of the IHR (2005) (number of related emails shown in square brackets):

- Outbreak of Cyclospora in travellers to Mexico, 2016 [42]

### Events reported to WHO under IHR (2005) article 10

Between 2012 and 2016, 10 events were reported to WHO by the UK under article 10 of the IHR (2005) (number of related emails shown in square brackets):

- Anthrax cases in intravenous drug users, 2012 [3]
- Outbreak of antibiotic resistant Enterococcus infection in renal unit, 2012 [12]
- Norovirus outbreak on cruise ship, 2012 [13]
- Sodium nitrite poisoning in Italy resulting from consumption of mislabelled sorbitol supplied from the UK, 2012 [8]
- Possible further case of anthrax in intravenous drug user, 2013 [5]
- Ebola – UK case December 2014, 2015 [1]
- Manchester Central hospital closed due to suspected MERS-CoV cases, 2015 [12]
- Medical evacuation of confirmed UK military Ebola case from Sierra Leone, 2015 [15]
- First locally acquired Zika virus infection in the British Virgin Islands, 2016 [1]
- Death of UK chikungunya case with travel to India, 2016 [1]

### Events reported to WHO under IHR (2005) article 11.3

Between 2012 and 2016, 14 events were reported to WHO by the UK under article 11.3 of the IHR (2005) (number of related emails shown in square brackets):

- Posting re. measles in EURO on WHO HQ Travel and Health website, 2011 [3]
- Proposed EIS posting on HUS - EHEC outbreak in Germany, 2011 [15]
- Further Anthrax cases in intravenous drug users in UK, 2012 [48]
- Outbreak of Legionnaires' disease in Edinburgh, 2012 [26]

- Novel coronavirus case in the UK with travel history to Pakistan and Saudi Arabia, 2013 [5]
- Update on confirmed case of Ebola in healthcare worker returned from Sierra Leone (December), 2014 [11]
- Update on Jordanian MERS-CoV case with previous travel to UK, 2014 [16]
- Contact tracing activities related to December 2014 confirmed UK Ebola case, 2015 [68]
- Ebola - UK case Dec 2014, relapsed Oct 2015, 2015 [146]
- Discharge of December 2014 confirmed UK Ebola case from hospital, 2015 [11]
- UK disinfection activities related to the West African Ebola Outbreak, 2015 [5]
- Update on Meningitis cases in UK residents returning from global Scout event in Japan, 2015 [47]
- Update MERS-CoV in Europe (cases in Austria, France, Germany, Greece, Italy, the Netherlands, Turkey and the UK, 2015 [11]
- New UK Rapid Risk Assessment related to the West African Ebola Outbreak, 2015 [17]
- Death in UK resident following use of Dinitrophenol diet pills from China, 2015 [24]
- Announcement of Ebola-Free status of UK (March 2015), 2015 [47]

### Appendix C: Authorised UK sea ports Ship Sanitation Control Certificates / Ship Sanitation Control Exemption Certificates

UK country/territory	All UK sea ports	Ports authorised to issue ship sanitation control certificates	Ports authorised to issue ship sanitation control exemption certificates only	Ports authorised to issue extensions to the ship sanitation control certificates
England	44	42	2	44
Scotland	35	34	1	35
Wales	10	10	0	10
Northern Ireland	3	3	0	3
MoD	3	3	0	3
UK Crown Dependencies	2	2	0	2
UK Overseas Territories	8	7	1	8
<b>Total</b>	<b>105</b>	<b>101</b>	<b>4</b>	<b>105</b>