COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 2, 7-13 January 2018

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Salmonella Agona associated with infant formula milk - France - 2017

Opening date: 12 December 2017 Latest update: 12 January 2018

As of 9 January, the French authorities reported 37 *Salmonella* Agona cases among infants, linked to the consumption of infant formula processed in one production site. In addition, Spain has reported one case in an infant linked to this outbreak, and Greece has reported one case in an infant that is very likely related to this outbreak based on epidemiological and microbiological findings.

➔Update of the week

Since the previous CDTR report, published on 5 January 2018, French authorities reported two additional cases of *Salmonella* Agona in infants below one year of age.

Rubella – Multistate (EU) – Monitoring European outbreaks

Opening date: 7 March 2012

Rubella, caused by the rubella virus and commonly known as German measles, is usually a mild and self-limiting disease which often passes unnoticed. The main reason for immunising against rubella is the high risk of congenital malformations associated with rubella infection during pregnancy. All EU Member States recommend vaccination against rubella with at least two doses of vaccine for both boys and girls. The vaccine is given at the same intervals as the measles vaccine as part of the MMR vaccine. No new outbreaks have been detected in the EU since March 2017.
ECDC reports global outbreaks of rubella in the CDTR on a monthly basis or if there is a critical event.

➔Update of the week

No new outbreaks have been detected since March 2017.

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Measles – Multistate (EU) – Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 12 January 2018

Measles outbreaks continue to occur in a number of EU/EEA countries with a risk of spread and sustained transmission in areas with susceptible populations.

➔Update of the week

Updates are provided for Austria, the Czech Republic, France, Germany, Greece, Italy, Latvia, Romania, Slovakia, Slovenia, Sweden and the UK. According to national public health authorities, measles has caused 49 deaths in EU countries in 2016 and 2017. In 2016, 13 deaths occurred in Romania (12) and in the UK (1). In 2017, 36 deaths were reported from Romania (25), Italy (4), Greece (2), Bulgaria (1), Germany (1), Portugal (1), France (1) and Spain (1). Updates outside EU/EEA countries are provided for Serbia and Ukraine.

Influenza – Multistate (Europe) – Monitoring season 2017 – 2018

Opening date: 11 October 2017 Latest update: 12 January 2018

Influenza transmission in Europe shows a seasonal pattern, with peak activity during the winter months.

➔Update of the week

Influenza activity in week 1/2018 (1–7 January 2018) was increasing in countries in northern, southern and western Europe.

Significant media attention in the UK was prompted by high levels of hospitalisations, which likely reflects the simultaneous co-circulation of influenza A(H3N2) and B in the country. High levels of media attention were also seen in other EU countries approaching the peak of this season.

The conclusions of the ECDC Rapid Risk Assessment of seasonal influenza, EU/EEA, 2017–2018 published on 20 December 2017 remain valid.

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II. Detailed reports

Salmonella Agona associated with infant formula milk - France - 2017

Opening date: 12 December 2017 Latest update: 12 January 2018

Epidemiological summary

On 2 December 2017, France reported 20 *Salmonella* Agona cases among infants under six months of age, most of whom had consumed different brands of infant formula processed in one production site. As of 9 January 2018, Santé publique France reported 37 cases among infants below one year of age. For most of these cases, consumption of infant formula could be confirmed. Eighteen of the cases were hospitalised and later discharged. No fatalities were reported. The first case was retrospectively identified in April 2017.

Based on epidemiological investigations, the consumption of infant formula was implicated as the vehicle of infection in this outbreak.

According to the Institut Pasteur, the outbreak strain displays atypical biochemical characteristics and, contrary to the largest part of *Salmonella* populations, the strain did not produce hydrogen sulfide (H2S) and gas after 18 hours incubation on Kligler-Hajna media. This characteristic appears discriminatory enough to identify cases probably associated with this outbreak. This particular trait was found in 35 cases associated with the outbreak in France, one case in Spain and one case in Greece.

A joint whole genome sequencing (WGS) analysis confirmed that the Spanish case is associated with the ongoing outbreak in France and may provide further confirmation as to whether the Greek case and other possible cases from other countries are also associated with this outbreak.

A previous outbreak of *Salmonella* Agona occurred in France in 2004 and 2005 and was associated with consumption of infant formula from the same producer.

TESSy background
Salmonella Agona is the 10th most common *Salmonella* serotype in the EU/EEA. In 2012-2016, it was reported by 26 EU/EEA countries with between 400 to 581 cases annually. The United Kingdom, Germany and France accounted for the highest proportion of confirmed cases (30%, 16% and 14%, respectively) during this period. Cases were most frequently detected among adults in the age group 25-44 years (23%) and children under five years (22%). No major differences were observed in gender distribution. Travel information was available for 76% of the cases and of these, 65% were reported as domestic cases.

Sources: Media | SANTE France| RASFF | Producer | Eurosurveillance

ECDC assessment

This outbreak of *Salmonella* Agona primarily affects infants and is associated with consumption of infant formula. Biochemical tests, and ultimately whole genome sequencing analysis, will confirm whether cases of *Salmonella* Agona in infants are linked to the outbreak. The investigation is still ongoing, but the recall of the implicated products is likely to reduce the risk for new human infections.

Actions

ECDC is monitoring the event in EPIS-FWD and is actively engaged in communication with EU/EEA countries that are possibly affected. ECDC is offering whole genome sequencing services to countries that do not have the capacity or possibility to conduct timely analysis, with the comparison of sequences being carried out by the Institut Pasteur in France. ECDC and the European Food Safety Agency (EFSA) will publish a joint assessment of this event later in January.

Rubella – Multistate (EU) – Monitoring European outbreaks

Opening date: 7 March 2012

Epidemiological summary

No new outbreaks have been detected in the EU since March 2017.

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Web sources: ECDC measles and rubella monitoring | ECDC rubella factsheet | WHO epidemiological brief summary tables | WHO epidemiological briefs | Progress report on measles and rubella elimination

ECDC assessment

The World Health Organization (WHO) has targeted the elimination of measles and rubella in the 53 Member States of the WHO European Region. The progress towards elimination of rubella in the WHO European Region is assessed by the European Regional Verification Commission for Measles and Rubella Elimination (RVC). Member States of the WHO European Region are making steady progress towards the elimination of rubella. At the sixth meeting of the RVC for Measles and Rubella in June 2017, of 53 countries in the WHO European Region, 33 (21 of which are in the EU/EEA) were declared to have reached the elimination goal for rubella, and four countries (two in the EU/EEA) were deemed to have interrupted endemic transmission for between 12 and 36 months, meaning that they are on their way to achieving the elimination goal. However, seven EU/EEA countries were judged to still have endemic transmission: Belgium, Denmark, France, Germany, Italy, Poland and Romania.

Web source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) (2017)

Actions

ECDC closely monitors rubella transmission in Europe by analysing the cases reported to The European Surveillance System and through its epidemic intelligence activities. Twenty-eight EU/EEA countries contribute to the enhanced rubella surveillance. The purpose of the enhanced rubella surveillance is to provide regular and timely updates on the rubella situation in Europe in support of effective disease control, increased public awareness, and achieving the target of rubella and congenital rubella elimination.

Measles – Multistate (EU) – Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 12 January 2018

Epidemiological summary

According to national public health authorities, measles has caused 49 deaths in EU countries in 2016 and 2017. In 2016, 12 deaths occurred in Romania and one in the UK. In 2017, 36 deaths were reported from Romania (25), Italy (4), Greece (2), Bulgaria (1), Germany (1), Portugal (1), France (1) and Spain (1).

Epidemiological summary for EU/EEA countries with updates since last month

Austria has reported two cases since the previous report on 8 December 2017. In 2017, as of 22 December, Austria reported 95 cases. In 2016, Austria reported 27 cases during the year (source: TESSy).

The Czech Republic has reported six cases since the previous report on 8 September 2017. In 2017, as of 3 December, the Czech Republic reported 142 cases. In 2016, six cases were reported during the same time period.

France: Since November 2017 and as of 11 January 2018, an outbreak with 77 cases of measles has been reported in the Bordeaux region. The outbreak started in different sites of the Bordeaux University campus and particularly affects young adults and children. Since 1 January 2018, measles is among the eleven (instead of previously three) vaccines made mandatory for children.

Germany has reported 15 cases since the previous report 8 December 2017. In 2017, as of 17 December, Germany reported 919 cases. During the same time period in 2016, Germany reported 319 cases.

Greece has reported 278 cases since the previous report on 8 December 2017. Between 17 May and 31 December 2017, Greece reported 968 cases, of which 566 are laboratory-confirmed, including two deaths. Most cases were young children, followed by 25 -44 years old adults, unvaccinated or incompletely vaccinated.

Italy has reported 31 cases since the previous report on 8 December 2017. In 2017, as of 12 December, Italy reported 4 885 cases, including four deaths. Of the 4 885 cases, 315 are healthcare workers. The median age is 27 years; 88% of the cases were not vaccinated and 6% received only one dose of vaccine. In 2016, Italy reported 862 cases during the whole year (source: TESSy).

Latvia reported four cases among adults on 2 January 2018. These are the first cases of measles in Latvia since 2014.

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Romania has reported 297 cases and one death since the previous report on 8 December 2017. Since 1 January 2016 and as of 5 January 2018, Romania has reported 10 307 cases, including 37 deaths. Of these, 1 969 cases were reported in 2016 and 8 338 cases in 2017-2018.

Slovakia: Since the beginning of December 2017 and as of 8 January 2018, according to media, six cases were reported from Bratislava.

On 3 January 2018, Slovenia reported a measles case in a pre-school child that had received one dose of vaccine. In 2017, Slovenia had reported two cases in January and four cases in February and in 2016 one case during the whole year (source: TESSy).

Sweden: Since 10 December 2017 and as of 11 January 2018, 26 cases of measles have been reported related to an outbreak in Gothenburg. The first case was reported from Sahlgrenska University Hospital in Gothenburg on 10 December 2017. On 2 January 2018, measles infection of a healthcare worker that was working at the Women's Clinic at Sahlgrenska University Hospital on 28 and 29 December 2017 was reported. Contact tracing and immunisation of employees is ongoing. Additional efforts are also being made to increase the hospital's capacity to analyse samples. According to media quoting the Sahlgrenska's press service, 69 new-born children might have been exposed and have received immunoglobulins as post-exposure prophylaxis. One case with exposure in Gothenburg was confirmed in Västerbotten, in northern Sweden.
From January to October 2017, Sweden reported 39 measles cases. In 2016, Sweden reported three cases (Source: TESSy).

The UK: England has reported 62 cases since the previous report 8 December 2017. As of 19 December 2017, England has reported 98 confirmed cases from ongoing outbreaks. Those cases were reported from West Yorkshire (34), Cheshire and Liverpool (28), the West Midlands (22), Surrey (10) and Greater Manchester (4).
From January to November 2017, the entire UK reported 232 cases. In 2016, 570 cases were reported during the same time period (source: TESSy).

Epidemiological summary for countries outside EU/EEA since last month

Serbia has reported 486 cases and two deaths since the previous report on 8 December 2017. Between the beginning of October 2017 and 5 January 2018, Serbia has reported 808 cases, of which 350 were confirmed. Most of the cases (92%) were unvaccinated, incompletely vaccinated or have unknown vaccination status. The two reported deaths were in a 30-year-old man and a two-year-old child. Both were not vaccinated. These are the first two deaths related to measles after 20 years in Serbia.

Ukraine: On 9 January 2018, media, quoting the Public Health Center of the Ministry of Health, reported 3 382 cases during the first 11 months of 2017. Five people died of measles, two children and three adults. The most affected regions are Ivano-Frankivsk, Zaporizhia and Odessa. From 3 October to 15 December 2017, the Zaporozhye region reported 33 cases among locally-based healthcare workers. In 2016, 78 cases were reported during the same time period in Ukraine.

ECDC links: Measles web page | ECDC Communicable Disease Threats Reports (CDTR) | ECDC rapid risk assessment ongoing outbreak of measles in Romania, risk of spread and epidemiological situation in EU/EEA countries, 3 March 2017
Sources: National Public Health Institutes | Ministries of Health | media

ECDC assessment

Measles outbreaks continue to occur in a number of EU/EEA countries as indicated by the current epidemiological situation. There is a risk of spread and sustained transmission in areas with susceptible populations. Current outbreaks are affecting various population groups, including healthcare workers caring for people at risk of severe disease and complications (e.g. infants under one year of age, immunosuppressed).

Prompt and targeted outbreak response to break chains of transmission is essential. This includes the isolation of suspected and confirmed cases and the close monitoring of previously unvaccinated contacts. Supplementary vaccination with measles-containing vaccines (MCV) is indicated for those not able to show proof of vaccination or immunity. The use of immunoglobulins for those at highest risk and for whom MCV cannot be used (e.g. infants as in the case of the outbreak in Gothenburg, Sweden) is to be considered. All these interventions come at a high human and financial cost at a time of the year where the healthcare system is already under pressure.

Vaccination with at least two doses of a MCV remains the most effective preventive measure. Every encounter with the healthcare system should be used to ensure that every resident in the EU has a documented history of MCV as per national recommendation. If not, additional doses should be administered. Vaccination history needs to be readily available to healthcare workers in case of exposure or outbreak. Vaccination coverage of 95% of the general population at national as well as subnational levels with two doses of MCV is necessary to ensure that measles circulation is interrupted, and that the introduction of measles cases does not result in secondary cases.

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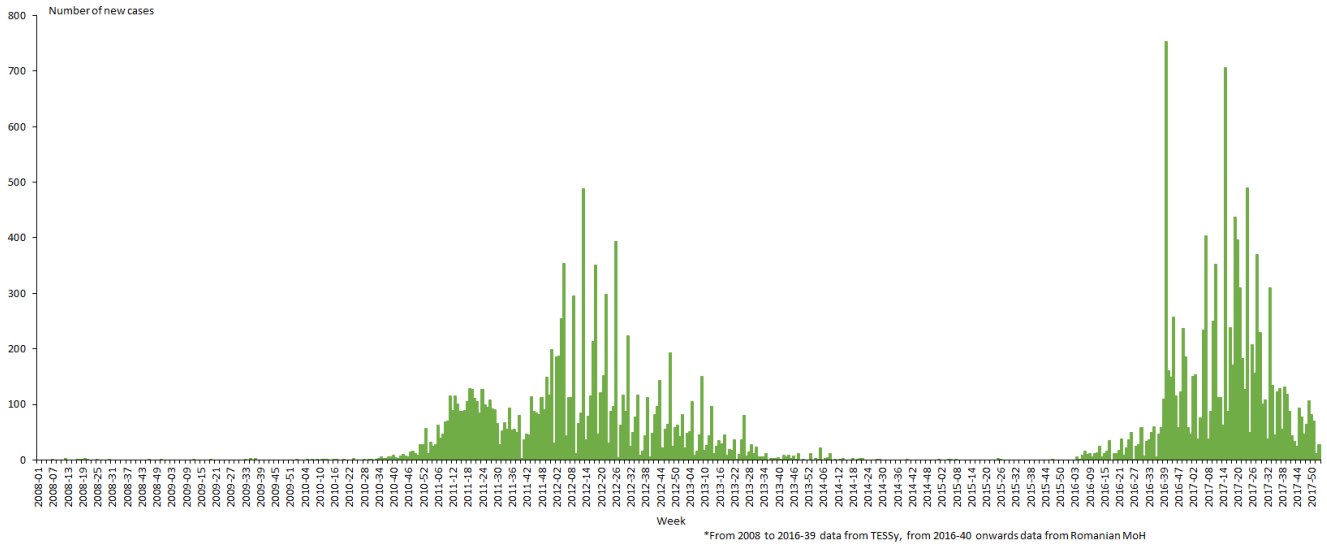
In the EU/EEA, only seven countries report having reached the target of 95% measles vaccination coverage necessary to prevent outbreaks and eliminate the disease. The current epidemiological events are putting the elimination status of some countries at stake and will require sustained efforts to increase population immunity to measles and halt transmission.

Actions

All EU/EEA countries report on a monthly basis measles cases through TESSy to ECDC and data are published monthly. ECDC monitors European outbreaks through epidemic intelligence activities.

New measles cases per week of reporting, week 2008-1 to 2018-1, Romania

Data source: National Institute of Public Health Romania and TESSy (ECDC)



Influenza – Multistate (Europe) – Monitoring season 2017 – 2018

Opening date: 11 October 2017 Latest update: 12 January 2018

Epidemiological summary

Influenza activity was increasing in countries in northern, southern and western Europe. Epidemic thresholds have been passed in eight reporting countries. Forty-two per cent of the sampled patients presenting with influenza-like illness (ILI) or acute respiratory infection (ARI) in sentinel primary healthcare sites tested positive for influenza viruses, similar to the 44% in the previous week.

Since week 40/2017, both influenza type B (65%) and A viruses (35%) were co-circulating and mixed patterns of circulation were observed across the Region.

A(H1N1)pdm09 viruses have outnumbered A(H3N2) viruses (60% vs. 40%) among the A virus detections.

Almost (88%) A(H3N2) antigenically characterised viruses were similar to the vaccine virus.

ECDC assessment

As expected for this time of year, influenza activity is increasing, prompting pressure to healthcare systems and significant media attention. Vaccination programmes targeting the elderly, people with chronic diseases and healthcare workers should be continued and intensified in countries not reaching the seasonal peak. Antiviral treatment with neuraminidase inhibitors to people

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with severe symptoms or rapid progression should be advised. Antiviral prophylaxis during the early phases of outbreaks in closed settings such as nursing homes should be considered. Inter-personal distancing measures are also likely to provide protection to the infants, the elderly and the frail.

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the Flu News Europe website. Risk assessments for the season are available on the ECDC website and on the World Health Organization's Regional Office for Europe website.

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