

This report provides an overview of selected epidemiological characteristics of measles and rubella in the WHO European Region. It is primarily based on epidemiological data submitted to the centralized information system for infectious diseases.<sup>1</sup> The analyses of these diseases are performed on cases with disease onset dates during the first quarter of 2014. Where these dates were unavailable, cases with the date of notification reported during this period were included.

The reader is referred to WHO EpiData no. 03/2014, which includes tabulated surveillance data by country corresponding to the period of reporting (January to March 2014).<sup>2</sup> This issue reports specifically on measles in the Czech Republic, Ireland, Latvia, Poland, the Russian Federation, Spain and the former Yugoslav Republic of Macedonia, and on rubella in the Russian Federation.

## Measles from January to March 2014

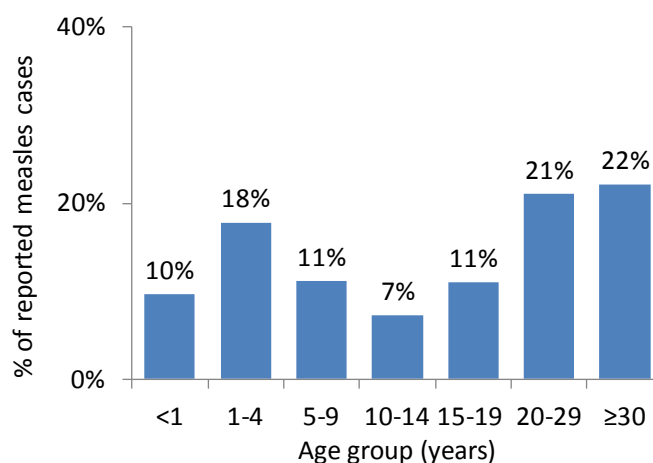
### *Incidence – notifications and laboratory data*

For the first quarter of 2014, 6335 measles cases were reported in 28 countries of the WHO European Region among 49 (92%) countries that submitted measles data (including zero reporting). Four countries, namely Bosnia and Herzegovina, Monaco, San Marino, and Turkmenistan did not submit reports.

Of the total, 83% of cases (n=5228) were reported by four countries: Russian Federation (n=2590; 41%), Ukraine (977; 15%), Georgia (930; 15%) and Italy (791; 12%). With 1390 cases of measles, the 28 Member States constituting the European Union reported 25% of all cases in the Region. The highest incidence per million population for the first quarter of 2014 was reported in Georgia (218.7) followed by Ukraine (22.2) and the former Yugoslav Republic of Macedonia (22.0).

Of the total, 3933 (62%) cases were laboratory-confirmed and 430 (7%) were epidemiologically linked cases. The remaining 1972 (31%) were classified as clinically compatible cases. During the first quarter of 2014, 265 clinical specimens were sequenced (reported as of 12 June 2014). The sequence data were entered in the Measles Nucleotide Surveillance

Fig. 1. Age distribution of measles cases in the WHO European Region, first quarter of 2014 (n=6333)



N.B. Discarded cases are not included

database (MeaNS)<sup>3</sup> by national or reference laboratories of the WHO European Region. The genotypes identified in the Region included B3 (n=140), D8 (118) and H1 (5).

### *Age distribution*

The age group was known in 6333 cases (99.97%). Forty-three percent of cases (n=2733) were 20 years and older (Fig. 1). Fig. 2 overleaf shows the age distribution of measles cases in the four countries that reported 83% of cases in the Region.

### *Vaccination status*

Vaccination status was known in 4955 cases (78%). Of the 3362 unvaccinated cases (68%), all had data on age: 591 cases (18%) were <1 year old, 788 cases (23%) were 1–4 years old, 408 cases (12%) were 5–9 years old, 541 cases (15%) were 10–19 years old and 1061 cases (32%) were ≥20 years old. The remaining 1593 cases (32%) were reportedly vaccinated with at least one measles-containing vaccine dose. The age group ≥20 years old had the largest proportion of cases (40%; n=1082) without information on vaccination status.

### *Hospitalization*

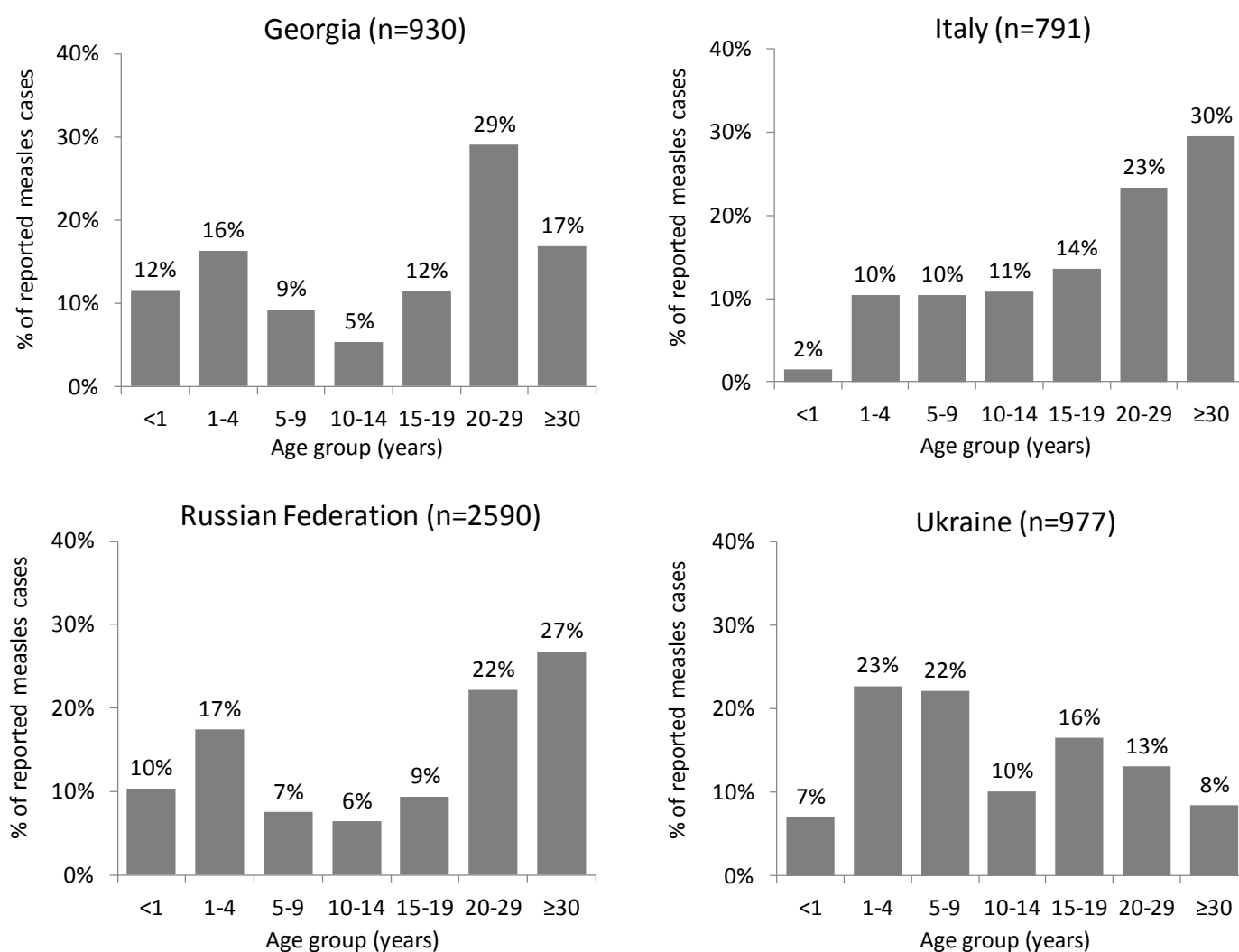
Data on hospitalization status was available for 66% (n=4199) of all reported measles cases. There were 3308 reported hospitalized cases in connection with measles, amounting to 79% of all cases with known hospitalization status.

<sup>1</sup> World Health Organization. Centralized Information system for infectious diseases (CISID) <http://data.euro.who.int/CISID/>

<sup>2</sup> WHO EpiData no. 3/2014, attached to this report and available at [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0006/249243/EpiData3-2014.pdf?ua=1](http://www.euro.who.int/__data/assets/pdf_file/0006/249243/EpiData3-2014.pdf?ua=1)

<sup>3</sup> Measles Nucleotide Surveillance database (MeaNS) [www.who-measles.org/](http://www.who-measles.org/)

Fig. 2. Age distribution of measles cases in the four countries that reported most (83%) cases in the WHO European Region, first quarter of 2014 (n=5288)



### Imported cases

Importation status was known in 34% (n=2160) of cases. Of these, 115 were reported as imported cases, amounting to 5.3% of cases with a known importation status.

### Measles outbreak in the Czech Republic

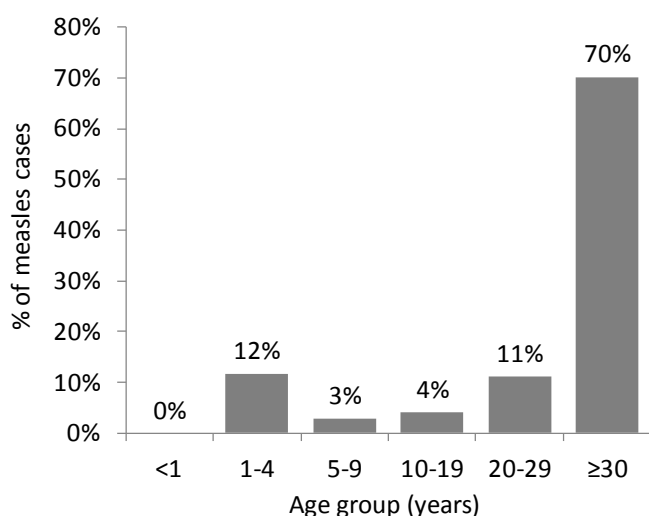
An outbreak of measles is ongoing in the northwestern part of the Czech Republic. Between 26 January 2014, when the index case first developed symptoms, and 21 May 2014, 220 suspected measles cases were reported. Of these, 171 cases were laboratory-confirmed. The index case was a 47-year-old man with a history of travel to India during the incubation period. Initially, the infection spread to seven close contacts of the index case. However, the focus of the outbreak later shifted to involve health care workers working in the

infectious disease, dermatology and emergency departments of the hospital in the region of Ústí nad Labem where he was admitted. By 30 April 2014, 68 health care workers were laboratory-confirmed for measles: 41 nurses, 11 medical doctors and 16 other hospital workers.

Measles virus genotype B3 was identified. Most cases (70%; n=120) were 30 years and older (Fig. 3). Vaccination status was known in 141 (82%) out of the 171 cases: 32 cases (19%) were unvaccinated and 109 cases (77%) reported having received at least one measles-containing vaccine dose.

To date, no measles-related deaths have been reported since the start of the outbreak. However, 23 cases were hospitalised and three cases developed acute pneumonia as a complication of measles.

Fig. 3. Age distribution of laboratory confirmed measles cases in the Czech Republic, 26 January–21 May 2014 (n=171)



#### Outbreak control measures

The local public health authorities issued a press release on the outbreak and alerted hospitals and primary health care providers in the region. They are also collaborating with general practitioners to actively trace contacts and recommend vaccination to unvaccinated or incompletely vaccinated individuals. A vaccination campaign targeting health care workers born in the years 1970–1980 is ongoing. By 21 May 2014, 200 health care workers received the combined measles, mumps and rubella (MMR) vaccine. The Ministry of Health is providing the necessary financial support to ensure sufficient vaccine supply.

#### Measles in Ireland

An outbreak of measles has occurred in Ireland. The first identified case of the outbreak developed a rash on 21 March 2014, and by 25 April 2014, 14 additional cases of measles were reported. The outbreak was announced on 27 March 2014, when two cases linked to National University of Ireland in Galway were reported to the local public health authorities. Further cases were reported among other university and third-level college students in the region, and close contacts of students in the city of Galway and the western counties of Galway, Mayo and Kerry. There is as yet no known history of travel among the first cases to suggest importation of the measles virus from abroad.

Of the total 15 cases reported with measles, 10 cases were laboratory-confirmed. Measles virus genotype D8 (Frankfurt Main lineage) was identified in clinical

specimen of four cases. The reported cases were distributed by age group as follows: eight cases were 14–19 years old and seven cases were 20 years and older. Vaccination status was known in 12 out of the 15 cases: eight cases were unvaccinated, one case had received one measles-containing vaccine dose and three cases reported having received two vaccine doses. To date, no measles-related deaths have been reported since the start of the outbreak.

#### Outbreak control measures

The local public health authorities issued a press release on the outbreak and communicated alerts to students and academic staff in the universities and third level colleges in Galway. Alerts were also distributed to hospitals and primary health care providers.

The local public health authorities are advising students to check their vaccination status against measles and, if necessary, be vaccinated at student health services or at their own general practitioner. Students who are feeling unwell are also being asked to seek medical advice by phone and to stay at home during the period of illness to prevent transmission to others.

At a national level, alerts and information were disseminated to all departments of public health in the country. The Health Protection Surveillance Centre (HPSC) is providing regular updates of the measles situation on its website, while also urging all university students in the country to review their vaccination status and be vaccinated accordingly.

#### Measles outbreak in Latvia

An outbreak of measles has occurred in Latvia. This follows a decade, since 2004, in which a total of 16 cases were reported. The first case for 2014 was a 24-year-old woman living in the eastern part of the country. She developed a rash on 12 March 2014. The case was notified on 18 March 2014. This case gave rise to three secondary cases: two health care workers (a doctor and a nurse assistant) and one family member. So far, no history of travel abroad or contact with someone returning from abroad has been established among the first cases.

By 13 May 2014, 31 laboratory-confirmed cases were reported mostly in the capital Riga but also in the regions of Pierīga, Latgales, Vidzemes and Zemgales, although not all cases could be epidemiologically

linked to the same cluster. Measles virus genotype B3 (Harare lineage) was identified in clinical specimens of eight laboratory-confirmed cases.

Most cases (58%; n=18) were 30 years and older (Fig. 4). Vaccination status was known in 16 out of the 31 cases: 11 cases were unvaccinated, two cases had received one measles-containing vaccine dose and three cases reported having received two vaccine doses. Among the unvaccinated cases there were five infants <12 months of age. To date, no measles-related deaths have been reported since the start of the outbreak. However, 22 cases were hospitalized.

Nosocomial transmission occurred in three hospitals and affected 13 health care workers, including three medical doctors, four nurses, three laboratory specialists and four hospital auxiliary staff (administration, IT specialist). Of these, five cases were unvaccinated, one case had received one measles-containing vaccine dose, two cases reported having received two vaccine doses and in five cases vaccination status was unknown. No secondary cases of measles were identified among hospitalized patients.

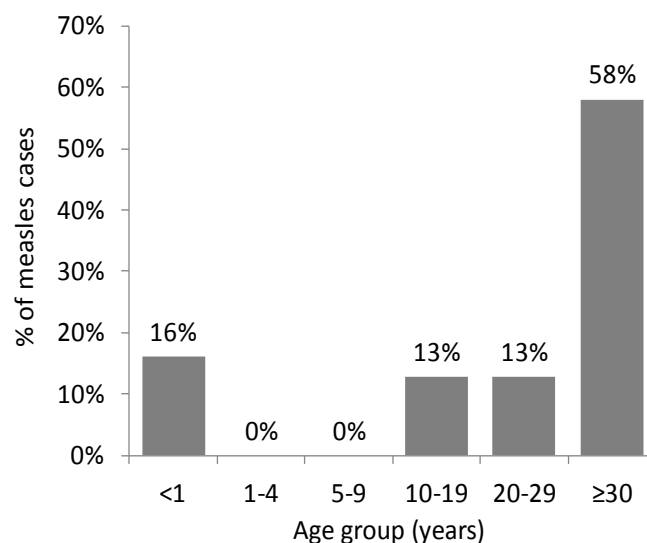
Two adults, who acquired the infection in Latvia, travelled on different international flights for short business trips during the incubation and/or prodrome period. The cases were reported with measles upon their return to Latvia. No secondary cases were reported among passengers or aircrew of the aircrafts nor among the cases' contacts abroad.

#### *Outbreak control measures*

In response to the outbreak, the Centre for Disease Prevention and Control of Latvia (CDPC) disseminated recommendations to the general public through the media. The general public and health care workers are invited to check immunization status through medical records and get vaccinated, if necessary. These recommendations and regular updates on the outbreak are made available on CDPC's website.

Recommendations emphasizing the appropriate prevention and control measures were also distributed by post to health care professionals (general practitioners, paediatricians and hospital authorities). General practitioners were requested to monitor cases' contacts by asking them to report for a period of 17 days after contact with the patient any signs and symptoms suggestive of the disease by phone. In this way patients receive immediate medical attention and

Fig. 4. Age distribution of laboratory confirmed measles cases in Latvia, 12 March –13 May 2014 (n=31)



avoid transmitting the infection at health care facilities and public places.

Each suspected and confirmed case of measles is being carefully investigated by regional epidemiologists of CDPC and response measures are being organized in collaboration with general practitioners: identification and reporting of contacts, organization of their immunization with MMR vaccine in cases with no evidence of vaccination in medical records and monitoring of contacts for signs and symptoms of the disease.

In the case of the two travellers with measles, the other passengers and aircrew of the aircrafts on which they flew were traced. Lists of potentially exposed passengers and aircrew were sent to relevant national public health authorities of other countries using the selective exchange option of the international Early Warning and Response System.

#### **Measles outbreak in Poland**

An outbreak of measles has occurred in the province of Wielkopolskie in Poland. Between 2 January 2014, when the first identified case of the outbreak developed a rash, and 7 May 2014, 62 cases of measles were reported. The first outbreak case was notified to the local public health authority in the province's capital Poznań on 13 January 2014. The last case had date of onset of rash on 22 April 2014.

The source of infection for the first cases could not be identified. The outbreak mostly (74%; n=46) affected

members of the Roma community and the remaining cases were reported in the general population. Of the total 62 cases, 48 cases were laboratory-confirmed. In seven cases measles virus genotype D8 was identified. This measles virus variant widely circulated in the Russian Federation in 2013.

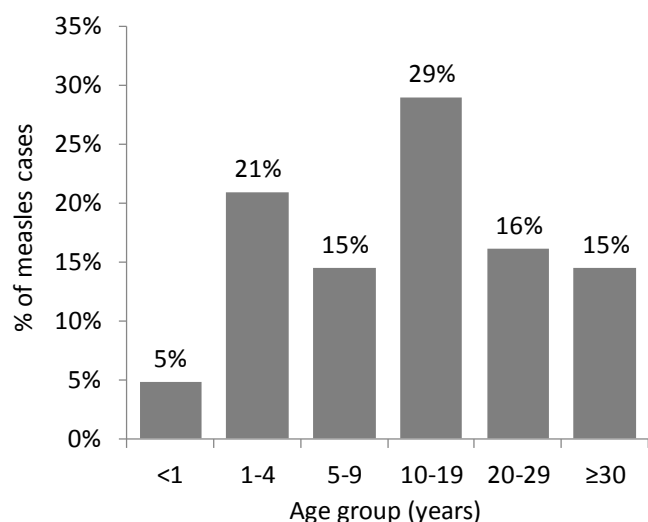
The median age was 14 years (range: nine months to 44 years). Almost a third of the cases were 10–19 years of age (Fig. 5).

Vaccination status was known for 50 cases – 48 were unvaccinated and included two infants below the recommended age for the first MMR vaccine dose. The other two cases were vaccinated with one dose of measles vaccine. Four cases occurred in a kindergarten. Seven cases experienced complications (three patients had pneumonia and four had diarrhoea). No measles-related deaths have been reported.

#### Outbreak control measures

Outbreak control measures in the province's capital Poznań included a vaccination campaign targeting susceptible health care workers in the two hospitals where patients with measles were admitted. In addition, a meeting held on 15 April 2014 at the Wielkopolskie Province Governor's Office brought together representatives from the district sanitary station in Poznań, the province's legal office of national minorities and the Roma Union. The aim was to encourage Roma to be vaccinated and to urge symptomatic cases to avoid contact with other community members. By the end of April, the head of the Roma Union was provided with a list of six primary

Fig. 5. Age distribution of reported measles cases in Poland, 2 January–22 April 2014 (n=62)



health care units providing free vaccination to all Roma children.

The district sanitary station in Poznań collaborated with local media to disseminate information through local newspapers, radio and television on the prevention of infectious diseases with particular emphasis on vaccination against measles.

#### Measles in the Russian Federation

The Russian Federation reported 2590 cases of measles for the first quarter of 2014 corresponding to an incidence of 18.2 per million inhabitants. As in 2011–2013, most cases (96%) were reported from Moscow, the Southern Federal District and the North-Caucasus Federal District.

In localized outbreaks there were cases of measles among individuals who were unvaccinated primarily because of philosophical and religious reasons. During the first quarter of 2014, 212 members of a Baptist community were affected. Measles cases among Roma communities have also been reported.

Of the total reported cases, 2262 cases (87%) were laboratory-confirmed, 318 cases (12%) were epidemiologically linked and 10 cases (0.4%) were classified as clinically compatible cases.

Fig. 2. on page 2 shows the age distribution of laboratory-confirmed measles cases in the Russian Federation in the first quarter of 2014. Most cases (49%; n=1268) were reported in adults 20 years of age and older. Of the 269 measles cases in infants <1 year of age, 81 infants (30%) were <6 months of age.

According to preliminary data, four cases acquired measles abroad. The remaining cases are believed to have acquired the infection in the country. Measles virus genotype strains were identified in 76 measles cases in 25 out of 83 territorial regions of the country. Most measles virus strains (72) belonged to the D8 genotype. The D4 genotype was isolated in three cases in St Petersburg, and genotype B3 in one case, reported in Khabarovsk. As in 2013, the D8 genotype strains were represented by two genetic measles virus lineages Villupuram and Frankfurt Main.

Vaccination status was known in 1978 (76%) out of the 2590 cases: 1357 cases (69%) were unvaccinated and 621 cases (31%) reported having received at least

one measles-containing vaccine dose. Of the unvaccinated cases, 269 cases occurred in infants younger than the recommended 12 months of age for the first dose of MMR vaccine according to the national childhood immunization programme. Of the remaining 612 cases (24%) with an unknown immunization status, 505 cases were 20 years of age and older.

To date, no measles-related deaths for the first quarter of 2014 have been reported. However, 2077 patients (80%) were admitted to hospital for isolation purposes in line with current national public health practices.

#### Outbreak control measures

The Federal Service for Supervision of Consumer Rights Protection and Human Well-Being (Rospotrebnadzor) within the Ministry of Social and Medical Development is undertaking “mop-up” supplementary immunization activities in high-risk areas and populations. The mop-up immunization launched in December 2013 is currently being implemented in Dagestan and Chechnya among adults 20–29 years of age who are unvaccinated or have unknown vaccination history. In these regions an additional vaccination campaign is planned among 15–17 year olds who are unvaccinated or have had only one dose of live measles vaccine.

Local epidemiologists of the Federal Service are actively involved with Roma leaders and religious leaders on vaccination issues, and the Service has been conducting regular press conferences to inform the media and the public. The current epidemiological situation with measles and the importance of vaccination as a preventive measure are regularly covered in the press.

#### Measles outbreak in Spain

An outbreak of measles has occurred in Spain. The index case was an unvaccinated 37-year-old man from the Philippines living in the city of Barcelona in the autonomous community of Catalonia. He had a history of travel to the Philippines during the incubation period and developed a rash on 3 January 2014. By 5 May 2014, 120 cases were reported with spread to the Catalan provinces of Girona (11 cases) and Lleida (1 case), the autonomous community of Valencia (1 case) and the Balearic islands (1 case).

Of the total 120 cases reported with measles, 113 cases were laboratory-confirmed. Measles virus genotype B3 (Harare lineage) was identified in clinical specimens of 29 cases. Most cases (50%; n=60) were 30 years and older (Fig. 6). Vaccination status was known in 112 out of the 120 cases: 89 cases were unvaccinated, 11 cases had received one measles-containing vaccine dose and 12 cases reported having received two vaccine doses. To date, no measles-related deaths have been reported since the start of the outbreak. However, 33 cases were admitted to hospital suffering from acute pneumonia.

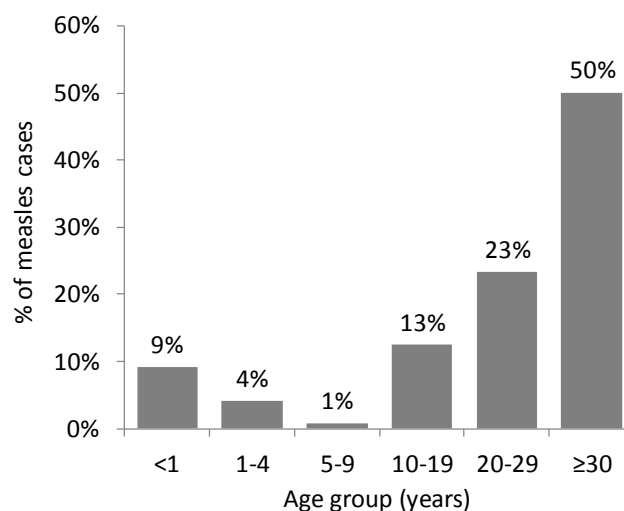
Thirty cases (24%) were health care workers including four medical doctors, 14 nurses and 12 hospital auxiliary staff (transport, administration). Of these, 22 cases were unvaccinated and in one case vaccination status was unknown. Moreover, eight cases resulted from nosocomial transmission.

#### Outbreak control measures

In response to the outbreak, the regional and local public health authorities of the affected areas are coordinating efforts to investigate cases thoroughly and trace susceptible contacts to vaccinate them. Updated information on the outbreak is being disseminated through the websites of the regional health authorities in Catalonia to the epidemiological surveillance units and the public.

Since the beginning of the outbreak several ad hoc reports have been disseminated to stress the importance of vaccination to health care workers and travellers. MMR vaccination is recommended for

Fig. 6. Age distribution of measles cases in Spain, 3 January –5 May 2014 (n=120)



travellers, especially those travelling to areas where measles is endemic or where measles outbreaks are ongoing. The regional public health authorities are ensuring adequate stock and proper distribution of vaccines to the health care centres.

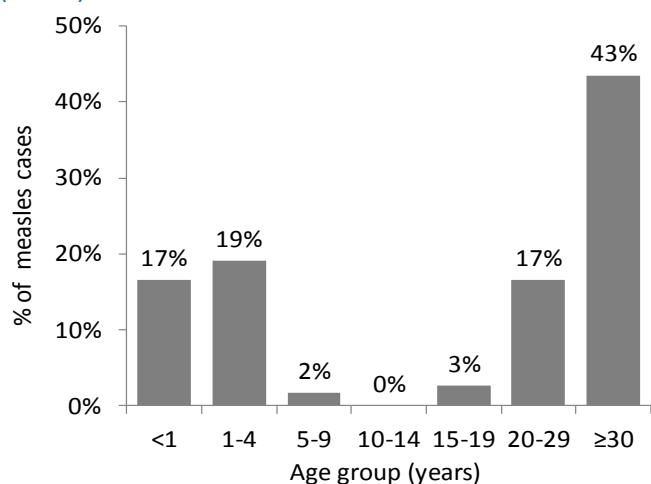
Two press releases on the outbreak were issued in February and March 2014 and featured in local newspapers in Barcelona and Girona. Television and radio interviews with the head of the Public Health Administration and other public health experts were also broadcasted.

### Measles outbreak in the former Yugoslav Republic of Macedonia

An outbreak of measles has been ongoing in the former Yugoslav Republic of Macedonia since 6 January 2014 when the first case was identified. By 18 May 2014, 115 cases of measles were reported, all among the general population. Most (111) cases occurred in the region of the capital city Skopje and four cases were reported in the municipalities of Bitola (2), Radovish (1) and Kumanovo (1).

Of the total 115 cases, 49 cases (43%) were laboratory-confirmed and 19 cases (17%) were epidemiologically linked to a laboratory-confirmed case. The remaining 47 cases were classified as clinical cases. In seven cases, measles virus genotype D8 (Frankfurt Main lineage) was identified, all with identical sequences. The outbreak peaked during week 13 (24–30 March 2014) with 22 cases having had onset of rash during that week. The largest percentage of cases occurred among those aged 30 years and older ( $n=50$ ) (Fig. 7).

Fig. 7. Age distribution of measles cases in the former Yugoslav Republic of Macedonia, 6 January–18 May 2014 ( $n=115$ )



Of the total 115 cases, 91 cases (79%) were unvaccinated. These included 19 infants younger than 12 months of age when the first dose of MMR vaccine is recommended by the national childhood immunization programme. Of the remaining 24 cases (21%), seven cases had received one measles vaccine dose, two cases had received two vaccine doses and in 15 cases vaccination status was unknown. For the cases vaccinated with two MMR vaccine doses, no clinical specimens were provided to confirm the diagnosis using laboratory tests.

To date, no measles-related deaths have been reported. However, 71 cases (62%) were hospitalized. Complications were reported in 16 (14%) cases: 15 patients suffered acute pneumonia and one case, a 15-month-old child, had diarrhoea. Most of the complications were registered in the age groups 1–4 years (6 cases) and 30–39 years (6 cases).

#### Outbreak control measures

National, regional and local public health authorities have been collaborating with the media to alert the general public on the outbreak and increase awareness on the importance of being vaccinated with the MMR vaccine. Information leaflets on measles and the importance of vaccination against the disease have been distributed in Macedonian and Albanian.

The regional Centre of Public Health (CPH) of Skopje is investigating all suspected cases of measles and contact tracing for the identification of susceptible individuals. To date, the immunization status of 333 contacts has been checked. Among these, 91 unvaccinated persons and 98 other persons without any documentation on vaccination status were identified and recommended to be vaccinated. CPH teams have been visiting all immunization sites in the city to monitor the immunization coverage more closely and to follow up on performance of the routine immunization of children. The same activities in other municipalities outside Skopje are being carried out by the regional public health authorities of Bitola, Kumanovo and Shtip (for Radovish).

#### Rubella from January to March 2014

##### Incidence – notifications and laboratory data

For the first quarter of 2014, 2449 rubella cases were reported in nine countries of the WHO European

Region among 42 (79%) countries submitting rubella data (including zero reporting). The cases were reported almost exclusively by Poland (n=2349; 96%), which also had the highest incidence per million population (61).

Of the total, 35 (1.4%) cases were laboratory-confirmed. These cases were reported by the Russian Federation (23), Kazakhstan (6), Norway (2), Austria (1), Bulgaria (1), Georgia (1) and Sweden (1). During the first quarter of 2014, no rubella virus sequence was entered in the Rubella Nucleotide Surveillance database (RubeNS).<sup>4</sup>

#### Age distribution

The age group was known in all 2449 cases, of which 549 cases (22%) were 15–19 years old and 629 cases (26%) were ≥20 years old (Fig. 8).

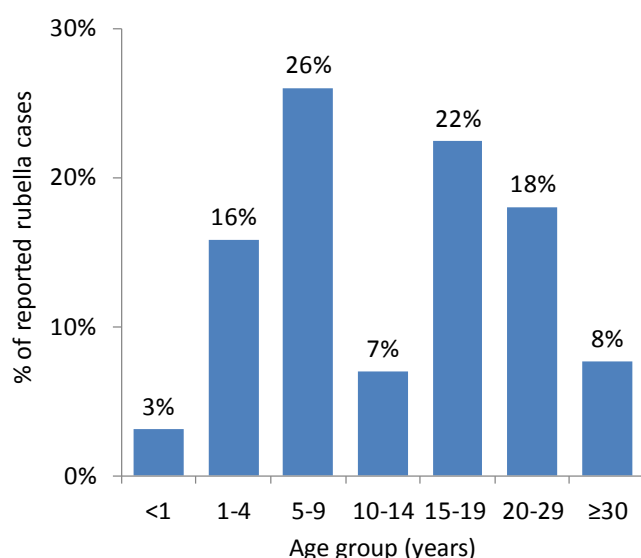
#### Vaccination status

Vaccination status was known in 2042 cases (65%). All 1071 (52%) unvaccinated cases had data on age: 62 cases (6%) were <1 year old, 59 cases (6%) were 1–4 years old, 58 cases (5%) were 5–9 years, 472 cases (44%) were 10–19 years old and 420 cases (39%) were ≥20 years old. The remaining 971 cases (48%) were reportedly vaccinated with at least one rubella-containing vaccine dose. These were reported mostly by Poland (96%; n=933).

#### Imported cases

Importation status was known in 2% (n=48) of rubella cases. Of these, 5 were reported as imported cases,

Fig. 8. Age distribution of rubella cases in the WHO European Region, first quarter of 2014 (n=2449)



N.B. Discarded cases are not included

amounting to 10.4% of cases with a known importation status.

#### Rubella in the Russian Federation

For the first quarter of 2014, there were 23 laboratory-confirmed cases of rubella reported in four out of 83 territorial regions of the Russian Federation. Most cases (65%, n=15) were adults 20 years of age and older: 12 cases were between 25–29 years of age and three cases were between 45–49 years of age. For the remaining eight cases, six cases were 15–19 years old and two cases were 1–9 years old. There is as yet no evidence to indicate rubella virus importation from abroad and therefore it is believed that the infection was acquired within the country. 14 patients (61%) were hospitalized in line with current national public health practices. Vaccination status was known in 10 cases (43%): two were unvaccinated and eight were reported to have received at least one dose of rubella vaccine.

The local health authorities are intensifying the investigation of vaccinated cases. A rubella seroprevalence study will include adults to determine their level of susceptibility to rubella.

#### Comments

##### Measles and rubella

The number of reported measles cases in the European Region for the first quarter of 2014 is 19% lower than that reported for the corresponding period in 2013 (n=7858). However, several countries experienced new outbreaks in 2014 while in others measles transmission intensified. Measles affected individuals of all age groups. Overall, during the first quarter of 2014, over 40% of cases were adults aged 20 years and older. The age distribution of cases varied in the different countries reflecting the timing of the implementation of measles vaccination programmes, strategies used and coverage achieved.

Most measles outbreaks affected the general population, but outbreaks in particular groups continue to be reported. So far in 2014, the measles outbreak in Poland has affected mostly unvaccinated Roma.

The outbreaks reported from the Czech Republic, Latvia and Spain demonstrate the continued presence of susceptible health care workers.

<sup>4</sup> Rubella Nucleotide Surveillance database (RubeNS) [www.hpa-bioinformatics.org.uk/rubella](http://www.hpa-bioinformatics.org.uk/rubella)



Nosocomial transmission is of particular concern because of the potential spread to the general population and the risk of serious complications in hospitalized infants and adults who may already be debilitated from other medical conditions.

Rubella continues to be reported in much fewer countries than measles. Although still too high, the number of reported cases in the European Region for the first quarter of 2014 is 77% lower than that reported for the corresponding period in 2013 (n=10 543). This is primarily because the number of reported rubella cases reported in Poland dropped from 10 441 in 2013 to 2349 for the same period in 2014. Nevertheless, the lack of a response measure to control the outbreak and laboratory confirmation of reported cases in Poland remain of concern in relation to the 2015 goal for eliminating the disease.

The relatively large proportion of measles cases in children <5 years of age (28%) and adults >20 years of age (43%) in the Region is important to note as the risk of serious measles-related complications (such as acute pneumonia and acute encephalitis) is increased in these age groups. Overall, 10% of cases occurred in infants <1 year of age in whom measles is particularly dangerous as infection may lead to the rare but invariably fatal complication of subacute sclerosing panencephalitis. Infants' protection against measles depends on their maternal antibodies. However, as these wane, infants become increasingly dependent on herd immunity until they reach the recommended age (usually 12–15 months) to receive their first MMR vaccine dose. Maintaining high vaccination coverage and closing immunity gaps in the adult population will therefore also protect vulnerable infants.

Susceptible individuals intending to visit areas where measles and rubella transmission is ongoing should receive the MMR vaccine. When importation of these diseases occurs, rapid and appropriate investigation

and response measures need to be taken to reduce the risk of virus spread. A high index of suspicion of these diseases is required also in adults who present with a rash after travelling to areas where measles and rubella transmission is ongoing.

Every country should ensure that their immunization programmes reach and maintain high MMR vaccination coverage, whilst also improving their capacity to identify susceptible individuals and to close immunity gaps in the population.

All the necessary precautions should be taken to prevent measles transmission in health care settings by implementing effective infection control practices. In addition, health authorities should strongly consider vaccination of susceptible health care workers against measles and rubella, and other vaccine-preventable (such as pertussis and chickenpox), as a standard of care in the context of occupational health but also patient safety.

The role of the media and internet are powerful sources of information on health, and as such instrumental in informing the public on the benefits of vaccination and vaccine safety. They have also been used to provide updates on the state of measles outbreaks and remind the public as well as health care workers of the importance of being vaccinated.

The current epidemiological situation of measles and rubella in the Region during the first quarter of 2014 remains of concern. Although intensified efforts are being taken by many countries, commitment to eliminate these diseases needs to be enhanced and continual throughout the Region.

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A monthly summary of the epidemiological data on selected vaccine-preventable diseases in the European Region

**Monthly summary table 1: Reported measles cases for the 12-month period Apr 2013 - Mar 2014 (data as of 29 April 2014)**

Country	Total Population <sup>1</sup>	Incidence Rate per 1 million population Apr 13-Mar 14	Total measles cases Apr 13-Mar 14	2013-2014 (Year and month of rash onset)												Month of last report 2014
				Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Albania	3 238 959	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Andorra	67 704	0	0	0	0	0	0	0	0	0	0	0	0	0	-	Feb
Armenia	3 116 607	3.5	11	0	5	3	1	2	0	0	0	0	0	0	0	Mar
Austria	8 432 566	12.7	107	13	10	4	2	4	7	8	2	9	32	11	5	Mar
Azerbaijan	9 523 077	11.9	113	23	47	28	4	0	0	0	0	0	2	4	5	Mar
Belarus	9 503 385	1.5	14	1	0	2	1	1	0	3	3	3	0	0	0	Mar
Belgium	10 801 368	3.8	41	7	11	5	2	2	0	0	0	0	4	7	3	Mar
Bosnia and Herzegovina	3 736 568	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Bulgaria	7 350 986	1.9	14	0	6	8	0	0	0	0	0	-	0	0	0	Mar
Croatia	4 378 643	0.5	2	0	0	0	0	1	0	0	0	0	0	1	0	Mar
Cyprus	1 140 285	3.5	4	0	0	0	0	0	0	0	0	0	0	1	3	Mar
Czech Republic	10 573 470	6.9	73	1	3	0	0	0	0	0	0	1	1	44	23	Mar
Denmark	5 607 702	3.4	19	6	0	0	0	0	0	0	0	0	0	5	8	Mar
Estonia	1 338 490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Finland	5 413 974	0.7	4	1	0	1	0	0	0	0	0	0	2	0	0	Mar
France	63 742 992	4.8	307	46	37	34	25	13	13	15	11	7	41	38	27	Mar
Georgia	4 278 919	1904.0	8147	1987	2446	1522	662	156	142	65	93	144	200	244	486	Mar
Germany	81 788 064	21.7	1776	177	533	355	258	142	108	60	39	23	16	33	32	Mar
Greece	11 441 413	0	0	0	0	0	0	0	0	0	0	-	0	0	0	Mar
Hungary	9 932 038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Iceland	331 528	0	0	0	0	0	0	0	0	0	-	-	0	0	-	Feb
Ireland	4 628 791	16.0	74	5	10	7	2	4	7	12	4	1	3	8	11	Mar
Israel	7 801 150	2.2	17	12	0	1	0	1	2	0	0	0	1	0	0	Mar
Italy	60 961 372	41.6	2536	212	356	383	200	74	42	37	178	263	315	205	271	Mar
Kazakhstan	16 552 683	6.6	110	0	2	9	4	5	2	12	20	19	12	25	-	Feb
Kyrgyzstan	5 515 034	0	0	0	0	-	-	-	-	-	-	-	0	0	0	Mar
Latvia	2 225 816	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Lithuania	3 280 161	11.3	37	5	25	5	0	-	0	0	0	-	0	0	2	Mar
Luxembourg	528 286	0	0	0	0	0	0	0	0	0	0	0	-	-	-	No Report**
Malta	420 515	4.8	2	0	2	0	0	0	0	0	0	0	0	0	0	Mar
Monaco	38 659	0	0	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Montenegro	633 200	0	0	0	0	0	0	0	0	0	0	0	0	0	-	Feb
Netherlands	16 749 476	159.0	2663	5	18	295	700	407	444	473	177	106	38	0	-	Feb
Norway	4 984 475	1.4	7	0	1	6	0	0	0	0	0	0	0	0	0	Mar
Poland	38 317 684	3.2	122	11	15	20	5	0	1	1	2	2	28	24	13	Mar
Portugal	10 694 259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Republic of Moldova	3 504 756	7.7	27	0	1	10	5	11	0	0	0	0	0	0	0	Mar
Romania	21 343 840	26.1	557	146	80	127	83	27	11	24	21	12	26	0	0	Mar
Russian Federation	142 512 768	33.8	4820	105	222	208	77	79	124	220	490	705	1056	887	647	Mar
San Marino	29 625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Serbia	9 827 512	0.1	1	0	1	0	0	0	0	0	0	0	0	0	0	Mar
Slovakia	5 486 391	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Slovenia	2 043 666	0.5	1	0	0	0	1	0	0	0	0	0	0	0	0	Mar
Spain	46 949 824	2.3	107	15	15	18	31	8	4	3	0	0	8	3	2	Mar
Sweden	9 532 211	4.0	38	0	11	15	3	0	0	0	0	0	5	4	0	Mar
Switzerland	7 753 209	23.5	182	6	9	47	55	35	9	2	3	3	6	4	3	Mar
Tajikistan	7 190 283	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
The former Yugoslav Republic of Macedonia	2 068 552	23.2	48	0	1	0	0	0	0	0	0	1	6	6	34	Mar
Turkey	75 356 656	60.8	4579	1313	1267	859	378	89	52	73	102	106	80	154	106	Mar
Turkmenistan	5 232 704	0	0	0	0	0	0	0	0	0	0	0	-	-	-	No Report
Ukraine	44 722 880	72.4	3239	252	266	257	138	47	149	401	535	217	394	261	322	Mar
United Kingdom	63 162 324	17.2	1084	478	233	124	81	22	15	28	13	4	39	27	20	Mar
Uzbekistan	28 429 936	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
<b>Total/Averages</b>	<b>904 217 436</b>	<b>34.15</b>	<b>30883</b>	<b>4827</b>	<b>5633</b>	<b>4353</b>	<b>2718</b>	<b>1130</b>	<b>1133</b>	<b>1437</b>	<b>1693</b>	<b>1626</b>	<b>2315</b>	<b>1996</b>	<b>2023</b>	

<sup>1</sup> Source: "World Population Prospects: The 2010 Revision", New York, United Nations and updates provided by Member States.

\*\* No monthly case-based data reported. Cumulative aggregated number of cases for this period is reported (summary table 3)

For tables 1-4, the monthly distribution of cases was based on date of rash onset. These monthly reported numbers may differ from reports produced by national or partner agencies if other dates (e.g. date of case reporting) are used.

**Monthly summary table 2: Reported rubella cases for the 12-month period Apr 2013 - Mar 2014 (data as of 29 April 2014)**

Country	Total Population <sup>1</sup>	Incidence Rate per 1 million population Apr 13-Mar 14	Total rubella cases Apr 13-Mar 14	2013-2014 (Year and month of rash onset)												Month of last report 2014
				Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Albania	3 238 959	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Andorra	67 704	0	0	0	0	0	0	0	0	0	0	0	0	0	-	Feb
Armenia	3 116 607	1.0	3	0	0	1	1	1	0	0	0	0	0	0	0	Mar
Austria	8 432 566	1.4	12	4	4	0	1	0	0	0	0	1	1	1	0	Mar
Azerbaijan	9 523 077	0.1	1	0	0	0	0	0	0	0	0	0	0	1	0	Mar
Belarus	9 503 385	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Belgium*	10 801 368	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Bosnia and Herzegovina	3 736 568	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Bulgaria	7 350 986	1.6	12	1	3	0	1	0	0	0	1	-	3	3	0	Mar
Croatia	4 378 643	0.2	1	0	0	0	1	0	0	0	0	0	0	-	-	Jan
Cyprus	1 140 285	0	0	0	0	0	0	0	0	0	0	0	0	0	-	Feb
Czech Republic	10 573 470	0.1	1	0	0	0	0	0	0	0	1	-	0	0	0	Mar
Denmark*	5 607 702	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Estonia	1 338 490	1.5	2	0	2	0	0	0	0	0	0	0	0	0	0	Mar
Finland	5 413 974	0.4	2	1	0	1	0	0	0	0	0	0	0	0	0	Mar
France*	63 742 992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Georgia	4 278 919	52.1	223	45	41	27	17	6	8	13	13	17	6	19	11	Mar
Germany*	81 788 064	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Greece	11 441 413	0	0	0	0	0	0	0	0	0	0	-	0	0	0	Mar
Hungary	9 932 038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Iceland	331 528	0	0	0	0	0	0	0	0	0	-	-	0	0	-	Feb
Ireland	4 628 791	1.3	6	0	2	0	1	0	1	2	0	0	0	0	0	Mar
Israel	7 801 150	0.1	1	0	0	0	0	0	0	0	0	1	0	0	0	Mar
Italy	60 961 372	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Kazakhstan	16 552 683	3.8	63	0	0	20	9	6	0	0	0	0	2	26	-	Feb
Kyrgyzstan	5 515 034	2.2	12	0	0	12	0	0	0	0	0	0	0	0	0	Mar
Latvia	2 225 816	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Lithuania	3 280 161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Luxembourg	528 286	0	0	0	0	0	0	0	0	0	0	0	0	-	0	Mar
Malta	420 515	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Monaco	38 659	0	0	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Montenegro	633 200	0	0	0	0	0	0	0	0	0	0	0	0	0	-	Feb
Netherlands	16 749 476	3.4	57	2	0	12	43	0	0	-	-	-	0	0	-	Feb
Norway	4 984 475	0.8	4	1	0	0	0	0	0	0	0	0	3	0	0	Mar
Poland	38 317 684	795.8	30493	10856	8466	4114	1877	690	569	606	481	485	769	669	911	Mar
Portugal	10 694 259	0	0	0	0	0	0	0	0	0	0	-	0	0	0	Mar
Republic of Moldova	3 504 756	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Romania	21 343 840	4.5	95	20	19	18	10	14	8	3	0	3	0	0	0	Mar
Russian Federation	142 512 768	1.1	160	22	16	10	5	7	2	2	6	67	9	8	6	Mar
San Marino	29 625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Serbia	9 827 512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Slovakia	5 486 391	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Slovenia	2 043 666	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Spain	46 949 824	0.1	3	2	1	0	0	0	0	0	0	0	0	0	0	Mar
Sweden	9 532 211	0.1	1	0	0	0	0	0	0	0	0	0	0	0	1	Mar
Switzerland	7 753 209	0.8	6	3	1	1	1	0	0	0	0	0	0	0	0	Mar
Tajikistan	7 190 283	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
The former Yugoslav Republic of Macedonia	2 068 552	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
Turkey	75 356 656	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Turkmenistan	5 232 704	0	0	0	0	0	0	0	0	0	0	0	-	-	-	No Report
Ukraine	44 722 880	0.2	9	-	-	-	9	-	-	-	-	-	-	-	-	No Report
United Kingdom	63 162 324	0.2	10	2	0	2	1	1	1	1	2	0	0	0	0	Mar
Uzbekistan	28 429 936	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mar
<b>Total/Averages</b>	<b>904 217 436</b>	<b>34.48</b>	<b>31177</b>	<b>10959</b>	<b>8555</b>	<b>4218</b>	<b>1977</b>	<b>725</b>	<b>587</b>	<b>627</b>	<b>504</b>	<b>574</b>	<b>793</b>	<b>727</b>	<b>929</b>	

<sup>1</sup> Source: "World Population Prospects: The 2010 Revision", New York, United Nations and updates provided by Member States.

\*Belgium, Denmark, France and Germany do not have comprehensive rubella surveillance systems.

**Summary table 3: Classification, reporting and performance of measles, January - March 2014 (data as of 29 April 2014)**

Country	Total Population <sup>1</sup>	Incidence per 1 million population (Apr 2013-Mar 2014)	Total measles cases <sup>2</sup>	Classification			Discarded MEA ± RUB	Imported cases	Reporting			Surveillance Indicators <small>(Please click here to refer Annex 8 of MR Surveillance guideline)</small>		
				Lab confirmed	Epi-Link	Clinically compatible <sup>3</sup>			Completeness	Timeliness	Month of last report	Laboratory investigation rate	Rate of discarded cases	Origin of infection
Albania	3 249 478	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Andorra	67 664	0	0	0	0	0	0	0	67%	33%	Feb	-	0	-
Armenia	3 125 551	0	0	0	0	0	8	0	100%	100%	Mar	100%	0.26	100%
Austria	8 448 081	5.3	48	29	18	1	0	3	100%	100%	Mar	96.7%	0	95.8%
Azerbaijan	9 633 916	1.1	11	0	0	11	0	0	100%	100%	Mar	0.0%	0	36.4%
Belarus	9 471 470	0	0	0	0	0	54	0	100%	100%	Mar	98.1%	0.57	0
Belgium	10 834 237	1.3	14	3	3	8	8	0	100%	67%	Mar	52.6%	0.07	68.2%
Bosnia and Herzegovina*	3 725 925	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Bulgaria	7 301 159	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Croatia	4 369 385	0	1	1	0	0	0	1	100%	67%	Mar	100%	0	100%
Cyprus	1 152 528	3.5	4	2	2	0	0	0	100%	100%	Mar	100%	0	0
Czech Republic	10 602 464	6.2	68	68	0	0	0	2	100%	100%	Mar	100%	0	70.6%
Denmark	5 626 834	2.1	13	13	0	0	0	1	100%	100%	Mar	100%	0	100%
Estonia	1 337 486	0	0	0	0	0	8	0	100%	100%	Mar	100%	0.60	0
Finland	5 431 673	0.4	2	2	0	0	0	0	100%	100%	Mar	100%	0	0
France	64 082 436	1.5	106	49	28	29	0	10	67%	67%	Mar	80.8%	0	84.9%
Georgia	4 251 853	218.7	930	196	48	686	20	0	100%	0%	Mar	23.7%	0.47	97.6%
Germany	81 628 000	0.9	81	66	5	10	0	5	100%	100%	Mar	86.8%	0	100%
Greece	11 465 810	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Hungary	9 918 162	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Iceland	335 344	0	0	0	0	0	0	0	67%	67%	Feb	-	0	-
Ireland	4 679 050	4.3	22	15	2	5	0	2	100%	100%	Mar	85.0%	0	50.0%
Israel*	7 930 896	0	1	1	0	0	0	1	100%	0%	Mar	100%	0	100%
Italy	61 108 864	12.1	791	294	288	209	18	53	100%	100%	Mar	59.3%	0.03	90.2%
Kazakhstan*	16 708 134	2.2	37	37	0	0	0	0	67%	67%	Feb	100%	0	0
Kyrgyzstan	5 568 088	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Latvia	2 217 993	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Lithuania	3 265 224	0.6	2	2	0	0	0	0	100%	100%	Mar	100%	0	100%
Luxembourg	535 609	4.0	1	1	-	-	-	-	-	-	No Report**	-	-	-
Malta	421 705	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Monaco	39 105	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Montenegro*	633 615	0	0	0	0	0	0	0	67%	67%	Feb	-	0	-
Netherlands	16 802 876	2.3	38	22	16	0	0	0	67%	67%	Feb	100%	0	100%
Norway	5 018 849	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Poland	38 331 688	1.6	65	48	13	4	0	5	100%	100%	Mar	94.2%	0	100%
Portugal	10 700 137	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Republic of Moldova	3 477 923	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Romania	21 291 444	1.2	26	22	1	3	0	0	100%	100%	Mar	88.0%	0	100%
Russian Federation	142 371 600	18.2	2590	2262	0	328	13	0	100%	100%	Mar	-	-	-
San Marino	29 750	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Serbia*	9 819 308	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Slovakia	5 495 762	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Slovenia	2 048 169	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Spain	47 243 756	0.2	13	10	2	1	9	3	100%	100%	Mar	100%	0.02	81.8%
Sweden	9 589 153	0.7	9	9	0	0	0	2	100%	100%	Mar	100%	0	100%
Switzerland	7 783 963	1.0	13	9	1	3	12	5	100%	67%	Mar	95.8%	0.15	56.0%
Tajikistan*	7 294 986	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
The former Yugoslav Republic of Macedonia*	2 070 647	22.2	46	37	0	9	0	0	100%	0%	Mar	80.4%	0	0
Turkey	76 169 160	4.5	340	337	3	0	0	0	100%	100%	Mar	100%	0	0
Turkmenistan	5 300 285	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Ukraine*	44 464 092	22.0	977	312	0	665	0	0	100%	100%	Mar	31.9%	0	0
United Kingdom	63 538 392	1.0	86	86	0	0	0	22	100%	100%	Mar	100%	0	75.6%
Uzbekistan*	28 739 428	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
<b>Total/Averages</b>	<b>906 749 107</b>	<b>6.9</b>	<b>6335</b>	<b>3933</b>	<b>430</b>	<b>1972</b>	<b>150</b>	<b>115</b>	<b>88.1%</b>	<b>79.9%</b>		<b>61.3%</b>	<b>0.02</b>	<b>39.7%</b>

Data source : Monthly aggregated and case-based data reported by Member States to WHO/Europe and ECDC/TESSy

<sup>1</sup> Source: "World Population Prospects: The 2010 Revision", New York, United Nations and updates provided by Member States.

<sup>2</sup> Imported and import-related measles cases are included in the total.

<sup>3</sup> Unless specified as lab confirmed or epi-linked, cases are classified as clinically compatible.

\* Member States reporting aggregated measles data.

\*\*No monthly case-based data reported. Cumulative aggregated number of cases for this period is hereby reported.

Indicators not meeting target and countries not reporting monthly measles data are highlighted in red; "-" = data not submitted.

**Summary table 4: Classification, reporting and performance of rubella, January - March 2014 (data as of 29 April 2014)**

Country	Total Population <sup>1</sup>	Incidence per 1 million population (Apr 2013-Mar 2014)	Total rubella cases <sup>2</sup>	Classification				Imported cases	Reporting			Surveillance Indicators <small>(Please click here to refer Annex 8 of MR Surveillance guideline)</small>		
				Lab confirmed	Epi-Link	Clinically compatible <sup>3</sup>	Discarded RUB ± MEA		Completeness	Timeliness	Month of last report	Laboratory investigation rate	Rate of discarded cases	Origin of infection
Albania	3 249 478	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Andorra	67 664	0	0	0	0	0	0	0	67%	33%	Feb	-	0	-
Armenia	3 125 551	0	0	0	0	0	8	0	100%	0%	Mar	100%	0.26	100%
Austria	8 448 081	0.2	2	1	0	1	0	0	100%	100%	Mar	50.0%	0	100%
Azerbaijan	9 633 916	0.1	1	0	0	1	0	0	100%	100%	Mar	0	0	0
Belarus	9 471 470	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Belgium	10 834 237	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Bosnia and Herzegovina	3 725 925	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Bulgaria	7 301 159	0.8	6	1	0	5	0	0	67%	67%	Mar	0	0	83.3%
Croatia	4 369 385	0	0	0	0	0	0	0	33%	33%	Jan	-	0	-
Cyprus	1 152 528	0	0	0	0	0	0	0	67%	67%	Feb	-	0	-
Czech Republic	10 602 464	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Denmark	5 626 834	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Estonia	1 337 486	0	0	0	0	0	2	0	100%	100%	Mar	100%	0.15	100%
Finland	5 431 673	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
France	64 082 436	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Georgia	4 251 853	8.5	36	1	0	35	10	0	100%	0%	Mar	21.7%	0.24	100%
Germany	81 628 000	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Greece	11 465 810	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Hungary	9 918 162	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Iceland	335 344	0	0	0	0	0	0	0	67%	67%	Feb	-	0	-
Ireland	4 679 050	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Israel	7 930 896	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Italy	61 108 864	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Kazakhstan	16 708 134	1.7	28	6	0	22	0	0	67%	67%	Feb	0	0	0
Kyrgyzstan	5 568 088	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Latvia	2 217 993	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Lithuania	3 265 224	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Luxembourg	535 609	0	0	0	0	0	0	0	67%	67%	Mar	-	0	-
Malta	421 705	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Monaco	39 105	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Montenegro	633 615	0	0	0	0	0	0	0	67%	67%	Feb	-	0	-
Netherlands	16 802 876	0	0	0	0	0	0	0	67%	67%	Feb	-	0	-
Norway	5 018 849	0	3	2	1	0	0	3	100%	100%	Mar	100%	0	100%
Poland	38 331 688	61.3	2349	0	0	2349	0	0	100%	100%	Mar	0	0	0
Portugal	10 700 137	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Republic of Moldova	3 477 923	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Romania	21 291 444	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Russian Federation	142 371 600	0.2	23	23	0	0	0	0	100%	100%	Mar	0	0	0
San Marino	29 750	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Serbia	9 819 308	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Slovakia	5 495 762	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Slovenia	2 048 169	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Spain	47 243 756	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Sweden	9 589 153	0	1	1	0	0	0	1	100%	100%	Mar	100%	0	100%
Switzerland	7 783 963	0	0	0	0	0	11	0	100%	0%	Mar	90.9%	0.14	9.1%
Tajikistan	7 294 986	0	0	0	0	0	1	0	100%	100%	Mar	100%	0.01	100%
The former Yugoslav Republic of Macedonia	2 070 647	0	0	0	0	0	0	0	100%	0%	Mar	-	0	-
Turkey	76 169 160	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Turkmenistan	5 300 285	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Ukraine	44 464 092	-	-	-	-	-	-	-	-	-	No Report	-	-	-
United Kingdom	63 538 392	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
Uzbekistan	28 739 428	0	0	0	0	0	0	0	100%	100%	Mar	-	0	-
<b>Total/Averages</b>	<b>906 749 107</b>	<b>2.7</b>	<b>2449</b>	<b>35</b>	<b>1</b>	<b>2413</b>	<b>32</b>	<b>4</b>	<b>73.0%</b>	<b>64.8%</b>		<b>1.5%</b>	<b>0</b>	<b>2.8%</b>

Data source: Monthly aggregated and case-based data reported by Member States to WHO/Europe and ECDC/TESSy

<sup>1</sup> Source: "World Population Prospects: The 2010 Revision", New York, United Nations and updates provided by Member States.

<sup>2</sup> Imported and import-related measles cases are included in the total.

<sup>3</sup> Unless specified as lab confirmed or epi-linked, cases are classified as clinically compatible.

Indicators not meeting target and countries not reporting monthly rubella data are highlighted in red. "-" indicates data not submitted.

**Summary table 5: Measles and rubella laboratory test results, January - March 2014 (data as of 29 April 2014)**

Country	Specimen* (Serum, Oral Fluid, Swab, Urine and other)								Reporting		
	Tested for measles	Positive for measles (%)	Measles Equivocal	Negative for measles	Tested for rubella	Positive for rubella (%)	Rubella Equivocal	Negative for rubella	% Completeness	% Timeliness	Month of last report
Albania	3	0 (0.0)	0	3	0	0	0	0	100%	100%	Mar
Andorra											No Lab
Armenia	18	0 (0.0)	0	18	18	0 (0.0)	0	18	100%	100%	Mar
Austria	397	34 (9.0)	0	363	1436	0 (0.0)	0	1436	100%	100%	Mar
Azerbaijan	-		-	-	-		-	-	-	-	No Report
Belarus	58	0 (0.0)	0	58	58	0 (0.0)	0	58	100%	100%	Mar
Belgium	32	4 (13.0)	1	27	33	6 (18.0)	4	23	100%	33.3%	Mar
Bosnia and Herzegovina	-		-	-	-		-	-	-	-	No Report
Bulgaria	9	0 (0.0)	0	9	12	0 (0.0)	0	12	100%	100%	Mar
Croatia	3	3 (100.0)	0	0	1	0 (0.0)	0	1	100%	100%	Mar
Cyprus	33	2 (6.0)	0	31	108	0 (0.0)	0	108	100%	66.7%	Mar
Czech Republic	124	44 (35.0)	23	57	2	1 (50.0)	0	1	100%	100%	Mar
Denmark	244	21 (9.0)	1	222	42	0 (0.0)	1	41	100%	100%	Mar
Estonia	133	0 (0.0)	0	133	239	4 (2.0)	0	235	100%	100%	Mar
Finland	118	4 (3.0)	0	114	185	0 (0.0)	0	185	100%	100%	Mar
France	169	29 (17.0)	5	135	81	0 (0.0)	0	81	100%	66.7%	Mar
Georgia	-		-	0	0		-	-	-	-	No Report
Germany	67	19 (28.0)	0	48	20	1 (5.0)	0	19	100%	100%	Mar
Greece	-		-	-	-		-	-	-	-	No Report
Hungary	15	0 (0.0)	0	15	62	0 (0.0)	0	62	100%	100%	Mar
Iceland	-		-	-	-		-	-	-	-	No Report
Ireland	148	25 (17.0)	2	121	422	3 (1.0)	0	419	100%	100%	Mar
Israel	44	10 (23.0)	0	34	186	38 (20.0)	0	148	100%	100%	Mar
Italy	-		-	-	-		-	-	-	-	No Report
Kazakhstan	141	75 (53.0)	0	66	103	6 (6.0)	0	97	100%	100%	Mar
Kyrgyzstan	29	0 (0.0)	1	28	29	0 (0.0)	1	28	66.7%	66.7%	Feb
Latvia	63	14 (22.0)	0	49	67	1 (1.0)	1	65	100%	66.7%	Mar
Lithuania	10	2 (20.0)	2	6	8	0 (0.0)	0	7	100%	100%	Mar
Luxembourg	32	2 (6.0)	1	29	9	0 (0.0)	0	9	100%	100%	Mar
Malta	10	0 (0.0)	0	10	387	1 (0.0)	0	386	100%	33.3%	Mar
Monaco											No Lab
Montenegro											No Lab
Netherlands	86	52 (60.0)	0	34	86	0 (0.0)	0	86	100%	33.3%	Mar
Norway	8	0 (0.0)	0	8	27	2 (7.0)	0	25	100%	100%	Mar
Poland	208	121 (58.0)	2	85	41	8 (20.0)	1	32	100%	100%	Mar
Portugal	3	0 (0.0)	0	3	0	0	0	0	100%	100%	Mar
Republic of Moldova	4	0 (0.0)	0	4	4	0 (0.0)	0	4	100%	100%	Mar
Romania	86	13 (15.0)	0	73	89	8 (9.0)	0	81	100%	100%	Mar
Russian Federation	3947	2443 (62.0)	10	1494	1721	42 (2.0)	6	1671	100%	100%	Mar
San Marino											No Lab
Serbia	9	0 (0.0)	0	9	54	0 (0.0)	0	54	100%	100%	Mar
Slovakia	0	0	0	0	0	0	0	0	100%	100%	Mar
Slovenia	11	0 (0.0)	0	11	10	0 (0.0)	0	10	100%	100%	Mar
Spain	-		-	-	-		-	-	-	-	No Report
Sweden	-		-	-	-		-	-	-	-	No Report
Switzerland	32	17 (53.0)	1	13	6	6 (100.0)	0	0	100%	100%	Mar
Tajikistan	-		-	-	-		-	-	-	-	No Report
The former Yugoslav Republic of Macedonia	-	35 (56.0)	-	-	-	0 (0.0)	-	-	-	-	Mar
Turkey	0		0	0	0		0	0	0	0	No Report
Turkmenistan	0		0	0	0		0	0	0	0	No Report
Ukraine	257	124 (48.0)	1	120	148	37 (25.0)	0	111	100%	100%	Mar
United Kingdom	1220	130 (11.0)	0	1090	268	1 (0.0)	0	267	100%	66.7%	Mar
Uzbekistan	7	0 (0.0)	0	7	7	0 (0.0)	0	7	100%	100%	Mar
<b>Total / Average</b>	<b>7778</b>	<b>3223 (41%)</b>	<b>50</b>	<b>4527</b>	<b>5969</b>	<b>165 (3%)</b>	<b>14</b>	<b>5787</b>	<b>77.9%</b>	<b>71.0%</b>	

Data source: Aggregated monthly data provided by regional measles and rubella laboratory network (MR Labnet) to WHO/Europe.

\*Specimen based data are not population based, and should not be interpreted as indicators for epidemiological surveillance. Laboratories may have received more than 1 clinical sample or may have conducted more than 1 test for a given case reported in Table 1.

