

WHO Epidemiological Brief



A monthly publication on vaccine-preventable diseases and immunization data and analysis

Highlighting in the WHO European Region:

- **measles outbreaks**
- **rubella surveillance**
- **acute flaccid paralysis surveillance**
- **invasive bacterial disease surveillance**

Summary

Measles outbreaks

In July, 16 countries reported 314 measles cases. Over 50% of the cases were reported by Spain and Italy, 115 and 69 cases respectively. A total of 25 804 measles cases were reported January – July 2011.

Rubella surveillance

Of the 120 confirmed cases of rubella reported from 38 Member States between January – July 2011, 48 cases were reported in Georgia, 33 in Bulgaria and 20 in Uzbekistan.

Acute flaccid paralysis surveillance and regional polio-free status

Of the 42 Member States implementing AFP surveillance in the WHO European Region, 24 Member States report lower non-polio AFP rates in 2011 than in 2010.

On August 24, the European Regional Certification Commission for Poliomyelitis Eradication announced that the Region's polio-free status has been retained thanks to the successful interruption of polio transmission.

The WHO Regional Office for Europe is conducting a detailed risk assessment with countries to assess the potential for spread of an outbreak of polio (4 confirmed cases) in The People's Republic of China into the WHO European Region.

Invasive bacterial disease surveillance

A total 244 cases of suspected meningitis were identified by the three sentinel surveillance sites for bacterial meningitis in the Region in 2010. Of the 119 cases that were determined to be likely of bacterial origin, *Streptococcus pneumoniae* was identified in 9 (8%), *Haemophilus influenzae* type b in 7(6%) and *Neisseria meningitidis* in 23(19%).

Note: Measles, rubella and poliomyelitis data for January – July 2011 by Member State are highlighted on pages 4-7.

Measles outbreaks in the WHO European Region

In July, 33 of 53 Member States sent monthly reports, of which 16 countries reported 314 measles cases. Over 50% of the cases were reported by Spain and Italy, with 115 and 69 cases respectively. There were no reports from 20 Member States in July, among these countries; Bosnia and Herzegovina, Kyrgyzstan and Tajikistan have not routinely reported any data in 2011.

However, routine reporting improved in July compared to June when 30 countries reported. The goal is to have all 53 Member States report monthly, including if there are zero cases for the month. Timeliness of reporting (defined as the number of national reports received by WHO from countries by the 25th of the following month – on time) also improved (56% in June, 62% in July) but both timeliness and completeness (defined as the number of national reports received by the WHO Regional Office for Europe for a particular period of time/year – complete data) remain below the target of 80%. For 16 Member States timeliness is below 50%.

Of the 314 reported measles cases with onset in July, 283 (90%) were eligible for vaccination with measles containing vaccine (MCV): 189 cases (67%) had not received any vaccination (zero dose), 28 cases (10%) had received two doses of MCV, 8 (3%) had received one dose and for 58 cases (20%) vaccination status was missing.

A total of 25 804 measles cases were reported in the period January – July 2011. July marks the first month in 2011 with no new outbreaks reported by countries who have not previously reported cases since January 2011.

Health authorities of The former Yugoslav Republic of Macedonia informed the WHO Regional Office for Europe that the country's measles outbreak has been declared over on 17 August. A countrywide outbreak response was initiated on 12 April, when the measles outbreak began, and approximately 40 000 persons have been vaccinated. From October last year to August 2011, 908 persons have been infected with measles, and one person has died.

Rubella surveillance

A total number of 120 confirmed cases of rubella were reported from 38 Member States between January – July 2011. Of these cases, 48 cases were reported in Georgia, 33 in Bulgaria and 20 in Uzbekistan. Of the 15 Member States that have not submitted reports in 2011, four have no rubella reporting systems (Belgium, Denmark, France and Germany). Timeliness of reporting is less than 50% in 24 of the 38 Member States reporting. In general there is a high under-reporting rate in the Region. The WHO Regional Office for Europe is investigating and following-up with Member States on rubella epidemiology in the Region. The status and quality of rubella surveillance in Member States and the challenges they face will be discussed in the regional measles and rubella surveillance meeting, planned for December 2011.

Acute flaccid paralysis surveillance

In 2011, 42 Member States are implementing AFP surveillance in the WHO European Region. In 24 Member States the non-polio AFP rates are lower in 2011 than they were in 2010, Armenia, Lithuania and Montenegro have high performing surveillance systems based on meeting the regional targets for non-polio AFP rate, and completeness and timeliness of reporting in both 2010 and 2011. None of the countries affected by the 2010 polio outbreak, nor the neighbouring countries (with the exception of Turkmenistan (1,9/100,000) and Kyrgyzstan (2,9/100,000) are reaching or close to the 2.0/100,000 target. Given the recent report of imported wild poliovirus type 1 in The People's Republic of China, this is of great

concern. The WHO European Regional Office continues to emphasize the importance of strengthening surveillance systems in these countries, among others.

Polio outbreak in The People's Republic of China – Europe on alert

The People's Republic of China reported cases of laboratory confirmed polio through the International Health Regulations (IHR) network on Monday 28 August 2011. The Ministry of Health of China reported four cases of laboratory-confirmed polio imported into the Xinjiang Uygur Autonomous Region. The cases ranged in age from 4 months to 2 years and are located in three counties of Hetian district (two cases reported in Hetian city, and one case each reported in Luopu county and Yutian county, respectively). All cases had onset of paralysis from 3 -19 July 2011. The Ministry of Health plans to conduct an initial province-wide response vaccination campaign beginning 8 September, targeting 3.8 million children with two rounds of polio immunization.

The WHO Regional Office for Europe is keeping in close communication with the Regional Office for the Western Pacific and has notified neighbouring countries about the outbreak. The WHO Regional Office for Europe is conducting a detailed risk assessment with countries to assess the potential of this outbreak to spread to countries within the WHO European Region. The WHO Regional Office for the Western Pacific is undertaking similar risk assessments within China and other Member States in the Western Pacific Region.

European Region retains its polio free status

The European Regional Certification Commission for Poliomyelitis Eradication met in Copenhagen on August 23-24, 2011. Taking into account the control and surveillance status of the Region, the Commission recognized that wild poliovirus transmission has been successfully interrupted and that the Region's polio-free status has been retained and the Region will not need to be recertified.

In 2010, four countries, Kazakhstan, the Russian Federation, Tajikistan and Turkmenistan, reported 475 laboratory-confirmed cases of wild poliovirus type 1, with 30 deaths. At the 25th meeting on the RCC, the evidence provided by Member States, including those in which wild poliovirus circulated in 2010, allowed the RCC to make an independent expert assessment of the sustainability of the polio-free status of the Region. The RCC reviewed this evidence to determine whether the European Region would retain its polio free status.

The RCC recognized that Member States had satisfactorily adopted the recommendations made at their 24th meeting on 26–27 January 2011 in St Petersburg, Russian Federation. The RCC concluded that countries had provided sufficient evidence addressing immunization coverage and on the sensitivity of their polio surveillance systems, including establishing sustainable transport of specimens. There was therefore no need to recertify all 53 Member States of the WHO European Region or any subregion.

The WHO Regional Office for Europe is keeping in close communication with the Regional Office for the Western Pacific and has notified neighbouring countries about the outbreak. The WHO Regional Office for Europe is conducting a detailed risk assessment with countries to assess the potential of this outbreak to spread to countries within the WHO European Region. The WHO Regional Office for the Western Pacific is undertaking similar risk assessments within China and other Member States in the Western Pacific Region.

Invasive bacterial disease surveillance

As part of a larger WHO global initiative to ensure that countries considering vaccine introduction have access to reliable information on the burden of disease due to *Haemophilus influenzae* type b, *Streptococcus pneumoniae* and *Neisseria meningitidis*, the WHO Regional Office for Europe has supported the establishment of sentinel surveillance for bacterial meningitis in 3 of 7 GAVI eligible countries in the Region.

Because syndromes caused by these bacteria are similar, accurate diagnosis requires laboratory confirmation of the etiologic agent. In addition to providing information which is important in determining how best to manage and treat a patient, accurate laboratory diagnostics are used to define the burden of disease, information which is needed to make informed decisions about vaccine introduction.

In selected sentinel hospitals, lumbar puncture is performed on all children aged less than 5 years who

are hospitalized with suspected meningitis. The CSF (cerebral spinal fluid) specimens are then evaluated by culture, latex agglutination and in some sites PCR. Remaining CSF and any bacterial isolates are forwarded to the regional reference laboratory at the Gabrichevsky Institute, Moscow for confirmation and further evaluation including serotyping.

As of June 2011, sentinel surveillance sites have been established in three countries (Azerbaijan, Georgia, and Ukraine). Results for 2010 which was the first year of data collection for Azerbaijan and Georgia are shown in Table 1. Of 244 cases of suspected meningitis that were identified, CSF was collected for 235 and of these 119(49%) were determined to be likely of bacterial origin based on the presence of elevated numbers of white cells and/or abnormal protein and glucose levels. Of these 119 cases, *Streptococcus pneumoniae* was identified in 9 (8%), *Haemophilus influenzae* type b in 7(6%) and *Neisseria meningitidis* in 23 (19%). There is considerable variation across sites in terms of the percentage of specimens with a specific aetiology identified and further investigation is needed to validate and understand the reasons for these differences.

Further work includes potential expansion of the activities to include other countries in the region, implementation and strengthening of internal and external quality control measures to ensure reliable, high quality results across sites, the comparison of different diagnostic testing algorithms and the linkage of existing laboratory data with the additional data on serotypes, provided through testing at the regional reference laboratory in Moscow.

Table 1: Number and distribution of suspected meningitis cases in 3 Member States of the WHO European Region, 2010

Country	No. of suspected meningitis cases	No. of suspected meningitis cases with LP performed and culture result available	No. of probable ¹ bacterial meningitis cases		Streptococcus pneumoniae by any method		Haemophilus influenzae type b by any method		Neisseria meningitidis by any method	
			Number	% of suspected cases	Number	% of suspected cases	Number	% of suspected cases	Number	% of suspected cases
Azerbaijan	50	49	25	50%	3	12%	1	4%		0%
Georgia	115	111	30	26%	1	3%	2	7%	1	3%
Ukraine	79	75	64	81%	5	8%	4	6%	22	34%
Total	244	235	119	49%	9	8%	7	6%	23	19%

data Source: Invasive Bacterial Diseases sentinel surveillance in WHO European region.

¹Clinical suspected meningitis PLUS:CSF is turbid or cloudy OR WBC>100 cells/mm³ OR WBC 10-99 cells/mm³ and (glucose< 40 mg/dl and/or Protein >100 mg/dl)

Table 2. Classification of reported suspected measles cases, January—Jul 2011 (data as of 1 Sept 2011)

Country	Total Population ¹	Incidence Rate per 1 million population (Jan-Jul)	Total confirmed measles	Classification				Importation ³	Reporting			Surveillance Indicators (Please see page 4 for detail)		
				Lab confirmed	Epi-Link	Clinical ²	Discarded		Completeness	Timeliness	Month of last report	Laboratory investigation rate	detection rate	Source of infection
Albania	3 184 761	0.0	0	0	0	0	0	0	100%	71%	Jul	-	0.00	-
Andorra	67 722	0.0	0	0	0	0	0	0	100%	43%	Jul	-	0.00	-
Armenia	3 099 249	0.0	0	0	0	0	16	0	86%	100%	Jul	100.0%	0.52	100.0%
Austria	8 407 841	8.7	93	19	5	69	0	20	86%	86%	Jul	31.8%	NA	NA
Azerbaijan	9 035 054	0.0	0	0	0	0	7	0	71%	71%	May	100.0%	0.08	100.0%
Belarus*	9 541 951	0.3	3	3	0	0	0	0	43%	43%	May	100.0%	0.00	0.0%
Belgium	10 741 473	44.0	501	292	67	142	22	28	57%	57%	Jul	111.4%	NA	NA
Bosnia and Herzegovina*	3 752 989	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA
Bulgaria*	7 450 501	19.6	146	124	0	22	0	0	100%	57%	Jul	84.9%	NA	NA
Croatia	4 402 729	1.1	7	5	2	0	0	2	86%	57%	Jul	100.0%	NA	NA
Cyprus	888 534	0.0	0	0	0	0	0	0	100%	100%	Jul	-	0.00	-
Czech Republic	10 442 510	2.6	31	25	0	6	0	4	100%	100%	Jul	80.6%	NA	NA
Denmark	5 491 148	14.0	78	71	7	0	0	1	100%	100%	Jul	100.0%	NA	NA
Estonia	1 338 887	1.5	7	7	0	0	0	5	100%	100%	Jul	100.0%	NA	NA
Finland	5 364 898	3.0	19	19	0	0	0	3	100%	100%	Jul	100.0%	NA	NA
France	62 916 416	222.8	14025	4532	772	8721	146	9	71%	43%	Jun	40.9%	NA	NA
Georgia*	4 184 100	7.6	32	7	8	17	0	0	100%	86%	Jul	29.2%	NA	NA
Germany	81 935 976	16.2	1343	728	509	106	1	16	57%	57%	Jun	87.2%	NA	NA
Greece	11 203 121	2.9	37	32	1	4	0	5	100%	86%	Jul	91.7%	NA	NA
Hungary	9 953 518	0.0	2	2	0	0	0	2	100%	100%	Jul	100.0%	0.00	100.0%
Iceland	335 063	0.0	0	0	0	0	0	0	100%	86%	Jul	-	0.00	-
Ireland	4 656 634	17.4	88	41	13	34	3	7	86%	86%	Jun	67.9%	NA	NA
Israel*	7 397 700	1.2	9	5	0	4	0	0	100%	100%	Jul	55.6%	NA	NA
Italy	60 280 504	22.0	1329	481	53	795	5	2	43%	29%	Jul	38.5%	NA	NA
Kazakhstan*	15 868 221	1.9	30	24	0	6	0	0	43%	14%	Mar	80.0%	NA	NA
Kyrgyzstan	5 617 475	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA
Latvia	2 231 358	0.4	1	1	0	0	0	0	43%	29%	Jun	100.0%	0.00	100.0%
Lithuania	3 228 015	1.2	7	7	0	0	0	3	100%	86%	Jul	100.0%	NA	NA
Luxembourg	497 368	6.0	5	5	0	0	0	2	86%	86%	Jul	100.0%	NA	NA
Malta	411 349	4.9	2	2	0	0	0	0	100%	100%	Jul	100.0%	NA	NA
Monaco	37 785	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA
Montenegro*	626 067	8.0	5	5	0	0	0	0	71%	57%	Jun	100.0%	NA	NA
Netherlands	16 710 858	1.9	47	30	16	1	0	15	43%	29%	Jun	96.8%	NA	NA
Norway	4 895 307	6.3	37	37	0	0	2	6	57%	57%	Jul	100.0%	NA	NA
Poland	37 995 500	0.4	19	13	0	6	15	2	86%	57%	Jun	76.5%	0.04	100.0%
Portugal	10 752 590	0.0	0	0	0	0	2	0	100%	57%	Jul	100.0%	0.02	100.0%
Republic of Moldova	3 549 163	0.0	0	0	0	0	0	0	43%	14%	Mar	-	0.00	-
Romania	21 107 516	102.0	2156	779	1316	61	133	4	29%	0%	Jun	94.9%	NA	NA
Russian Federation	139 872 928	1.0	155	152	2	1	49	13	100%	100%	Jul	100.5%	NA	NA
San Marino	29 332	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA
Serbia*	9 855 875	35.1	346	71	13	262	0	0	100%	71%	Jul	21.3%	NA	NA
Slovakia	5 417 394	0.0	4	4	0	0	0	4	100%	100%	Jul	100.0%	0.00	100.0%
Slovenia	2 029 418	2.5	9	9	0	0	0	4	100%	100%	Jul	100.0%	NA	NA
Spain	45 724 660	58.2	2742	2119	345	278	2	81	100%	100%	Jul	90.3%	NA	NA
Sweden	9 335 463	0.6	23	23	0	0	0	17	100%	100%	Jul	100.0%	0.00	100.0%
Switzerland	7 622 415	75.4	620	391	80	149	90	45	100%	100%	Jul	76.5%	NA	NA
Tajikistan*	7 203 979	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA
The former Yugoslav Republic of Macedonia*	2 044 005	355.7	727	51	241	435	0	0	100%	86%	Jul	10.5%	NA	NA
Turkey	76 582 128	1.3	105	105	0	0	0	9	100%	100%	Jul	100.0%	NA	NA
Turkmenistan	5 243 476	0.0	0	0	0	0	0	0	14%	14%	May	-	0.00	-
Ukraine*	45 167 108	0.3	12	12	0	0	0	0	86%	86%	Jul	100.0%	0.00	0.0%
United Kingdom	62 230 620	9.8	686	685	1	0	3	74	86%	86%	Jun	100.1%	NA	NA
Uzbekistan*	28 110 756	11.2	316	172	0	144	0	0	57%	14%	Apr	54.4%	NA	NA
Total/Averages	896 071 408	28.4	25804	11090	3451	11263	496	383	74.1%	63.3%		55.4%	0.06	47.3%

Data source: Monthly aggregate and case-based data reported by Member States to WHO/Europe and/or EUVAC.NET.

¹ Source: "World Population Prospects: The 2008 Revision", New York, United Nations and updates provided by Member States.

² Cases with missing classification are classified as "Clinical".

³ Imported or import related measles cases included in total measles.

* Member States reporting aggregate measles data in years 2010 and 2011.

Indicators not meeting target and countries not reporting monthly measles data are highlighted in red; NA=Not Applicable; "-" = data not available or can not be calculated due to insufficient

Table 3. Classification of reported suspected rubella cases, January—Jul 2011 (data as of 1 Sept 2011)

Country	Total Population ¹	Annualized Incidence Rate per 1 million population	Total confirmed Rubella	Classification				Importation ³	Reporting			Surveillance Indicator (Please see page 4 for detail)			
				Lab confirmed	Epi-Link	Clinical ²	Discarded		Completeness	Timeliness	Month of last report	Laboratory investigation rate	Detection rate	Source of infection	Adequacy of investigation
Albania	3 184 761	1.6	5	1	0	4	0	0	100%	71%	Jul	0.0%	-	-	0.0%
Andorra	67 722	0.0	0	0	0	0	0	0	100%	29%	Jul	-	0.00	-	-
Armenia	3 099 249	0.0	0	0	0	0	7	0	100%	100%	Mar	93.3%	0.23	214.3%	214.3%
Austria	8 407 841	0.1	2	0	0	2	0	1	86%	29%	Jul	50.0%	0.00	100.0%	0.0%
Azerbaijan	9 035 054	0.0	0	0	0	0	6	0	71%	71%	May	100.0%	0.07	100.0%	0.0%
Belarus	9 541 951	0.7	7	7	0	0	0	0	43%	43%	May	0.0%	0.00	0.0%	0.0%
Belgium	10 741 473	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
Bosnia and Herzegovina	3 752 989	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
Bulgaria	7 450 501	4.4	33	1	0	32	0	0	86%	29%	Jun	0.0%	-	-	0.0%
Croatia	4 402 729	0.0	0	0	0	0	0	0	57%	29%	Jul	-	0.00	-	-
Cyprus	888 534	0.0	0	0	0	0	0	0	100%	71%	Jul	-	0.00	-	-
Czech Republic	10 442 510	0.0	0	0	0	0	0	0	86%	43%	Jul	-	0.00	-	-
Denmark	5 491 148	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
Estonia	1 338 887	0.0	0	0	0	0	0	0	100%	71%	Jul	-	0.00	-	-
Finland	5 364 898	0.0	1	0	0	1	0	1	100%	57%	Jul	100.0%	0.00	100.0%	0.0%
France	62 916 416	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
Georgia	4 184 100	11.5	48	2	0	46	0	0	100%	86%	Jul	0.0%	-	-	0.0%
Germany	81 935 976	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
Greece	11 203 121	0.0	0	0	0	0	0	0	71%	29%	Jul	-	0.00	-	-
Hungary	9 953 518	0.0	0	0	0	0	0	0	100%	43%	Jul	-	0.00	-	-
Iceland	335 063	0.0	0	0	0	0	0	0	100%	57%	Jul	-	0.00	-	-
Ireland	4 656 634	0.0	0	0	0	0	0	0	86%	43%	Jun	-	0.00	-	-
Israel	7 397 700	0.0	0	0	0	0	0	0	100%	43%	Jul	-	0.00	-	-
Italy	60 280 504	0.0	0	0	0	0	0	0	14%	0%	Jan	-	0.00	-	-
Kazakhstan	15 868 221	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
Kyrgyzstan	5 617 475	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
Latvia	2 231 358	0.0	0	0	0	0	0	0	57%	14%	Jun	-	0.00	-	-
Lithuania	3 228 015	0.0	0	0	0	0	0	0	86%	43%	Jul	-	0.00	-	-
Luxembourg	497 368	0.0	0	0	0	0	0	0	100%	43%	Jul	-	0.00	-	-
Malta	411 349	0.0	0	0	0	0	0	0	100%	71%	Jul	-	0.00	-	-
Monaco	37 785	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
Montenegro	626 067	0.0	0	0	0	0	0	0	57%	43%	Apr	-	0.00	-	-
Netherlands	16 710 858	0.0	0	0	0	0	0	0	43%	0%	Jun	-	0.00	-	-
Norway	4 895 307	0.0	0	0	0	0	0	0	71%	29%	Jul	-	0.00	-	-
Poland	37 995 500	0.0	0	0	0	0	0	0	14%	0%	Apr	-	0.00	-	-
Portugal	10 752 590	0.0	0	0	0	0	2	0	86%	29%	Jul	0.0%	0.02	0.0%	0.0%
Republic of Moldova	3 549 163	0.0	0	0	0	0	0	0	43%	14%	Mar	-	0.00	-	-
Romania	21 107 516	0.0	0	0	0	0	89	0	43%	0%	Jul	98.9%	0.42	100.0%	100.0%
Russian Federation	139 872 928	-	-	-	-	-	-	-	-	-	No Report	100.0%	-	-	#DIV/0!
San Marino	29 332	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
Serbia	9 855 875	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
Slovakia	5 417 394	0.0	0	0	0	0	0	0	100%	71%	Jul	-	0.00	-	-
Slovenia	2 029 418	0.0	0	0	0	0	0	0	43%	0%	Jun	-	0.00	-	-
Spain	45 724 660	0.0	0	0	0	0	1	0	86%	43%	Jul	100.0%	0.00	100.0%	0.0%
Sweden	9 335 463	0.0	0	0	0	0	0	0	100%	57%	Jul	-	0.00	-	-
Switzerland	7 622 415	0.0	0	0	0	0	22	0	100%	29%	Jul	90.9%	0.29	9.1%	0.0%
Tajikistan	7 203 979	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
The former Yugoslav Republic of Macedonia	2 044 005	2.0	4	0	0	4	0	0	100%	71%	Jul	0.0%	-	-	0.0%
Turkey	76 582 128	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
Turkmenistan	5 243 476	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
Ukraine	45 167 108	-	-	-	-	-	-	-	-	-	No Report	-	-	-	-
United Kingdom	62 230 620	0.0	0	0	0	0	0	0	86%	43%	Jul	-	0.00	-	-
Uzbekistan	28 110 756	0.7	20	0	0	20	0	0	14%	0%	Mar	0.0%	0.00	0.0%	0.0%
Total/Averages	896 071 408	0.1	120	11	0	109	127	2	54.4%	27.8%		51.6%	0.00	47.0%	0.0%

Data source: Monthly aggregate and case-based data reported by Member States to WHO/Europe and/or EUVAC.NET.

¹ Source: "World Population Prospects: The 2008 Revision", New York, United Nations and updates provided by Member States.

² Cases with missing classification are classified as "Clinical".

³ Imported or import related rubella cases included in total rubella.

Indicators not meeting target and countries not reporting monthly rubella data are highlighted in red. "-" indicates data not available/applicable or can not be calculated due to insufficient denominator.

Table 4. Measles and rubella laboratory test results, January—Jul 2011 (data as of 1 Sept 2011)

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	21	0 (0.0)	0	21	5	1 (20.0)	0	4	100.0%	85.7%	Jul
Andorra											No Lab
Armenia	26	0 (0.0)	0	26	26	0 (0.0)	2	24	100.0%	100.0%	Jul
Austria	833	62 (7.0)	0	771	3434	3 (0.0)	0	3431	100.0%	100.0%	Jul
Azerbaijan	13	0 (0.0)	0	13	13	0 (0.0)	0	13	71.4%	42.9%	May
Belarus	347	56 (16.0)	11	260	251	23 (9.0)	3	225	100.0%	100.0%	Jul
Belgium	585	288 (49.0)	12	276	44	5 (11.0)	2	30	100.0%	100.0%	Jul
Bosnia and Herzegovina									0.0%	0.0%	No Report
Bulgaria	65	34 (52.0)	0	31	40	2 (5.0)	0	38	100.0%	71.4%	Jul
Croatia	9	7 (78.0)	0	2	9	0 (0.0)	0	9	100.0%	100.0%	Jul
Cyprus	0	0	0	0	0	0	0	0	100.0%	100.0%	Jul
Czech Republic	27	13 (48.0)	6	8	49	6 (12.0)	1	42	100.0%	85.7%	Jul
Denmark	920	179 (19.0)	20	721	348	11 (3.0)	53	284	85.7%	42.9%	Jun
Estonia	134	7 (5.0)	2	125	356	3 (1.0)	0	353	100.0%	100.0%	Jul
Finland	257	22 (9.0)	0	235	197	7 (4.0)	0	190	85.7%	85.7%	Jul
France	2610	1866 (71.0)	12	732	0	0	0	0	85.7%	71.4%	Jun
Georgia	29	4 (14.0)	0	25	31	4 (13.0)	4	23	100.0%	57.1%	Jul
Germany	964	625 (65.0)	4	335	63	4 (6.0)	3	56	100.0%	100.0%	Jul
Greece	81	22 (27.0)	0	59	132	29 (22.0)	0	103	71.4%	42.9%	May
Hungary	43	0 (0.0)	0	43	235	6 (3.0)	1	228	100.0%	100.0%	Jul
Iceland	35	0 (0.0)	0	35	56	0 (0.0)	0	56	100.0%	57.1%	Jul
Ireland	248	66 (27.0)	11	171	1000	3 (0.0)	12	985	100.0%	71.4%	Jul
Israel	74	16 (22.0)	0	58	419	37 (9.0)	0	382	100.0%	85.7%	Jul
Italy									0.0%	0.0%	No Report
Kazakhstan	82	52 (63.0)	3	23	19	0 (0.0)	0	18	85.7%	71.4%	Jun
Kyrgyzstan	746	240 (32.0)	8	496	746	6 (1.0)	16	722	100.0%	71.4%	Jul
Latvia	166	2 (1.0)	1	163	165	2 (1.0)	1	162	100.0%	71.4%	Jul
Lithuania	10	6 (60.0)	1	3	9	0 (0.0)	0	9	100.0%	100.0%	Jul
Luxembourg	86	10 (12.0)	0	76	29	1 (3.0)	1	27	100.0%	100.0%	Jul
Malta	3	3 (100.0)	0	0	833	6 (1.0)	0	827	100.0%	100.0%	Jul
Monaco											No Lab
Montenegro											No Lab
Netherlands	98	42 (43.0)	0	56	96	2 (2.0)	0	94	85.7%	71.4%	Jun
Norway	215	78 (36.0)	1	136	25	1 (4.0)	1	23	100.0%	100.0%	Jul
Poland	42	19 (45.0)	2	21	33	5 (15.0)	1	27	100.0%	100.0%	Jul
Portugal	13	3 (23.0)	0	8	0	0	0	0	100.0%	100.0%	Jul
Republic of Moldova	11	0 (0.0)	0	11	11	0 (0.0)	0	11	100.0%	100.0%	Jul
Romania	1345	971 (72.0)	18	356	406	42 (10.0)	10	354	100.0%	100.0%	Jul
Russian Federation	2513	351 (14.0)	6	2156	2219	233 (11.0)	6	1980	100.0%	85.7%	Jul
San Marino											No Lab
Serbia	191	99 (52.0)	2	90	271	1 (0.0)	0	270	100.0%	28.6%	Jul
Slovakia	10	2 (20.0)	0	8	12	6 (50.0)	0	6	100.0%	100.0%	Jul
Slovenia	131	41 (31.0)	5	85	14	0 (0.0)	0	14	100.0%	100.0%	Jul
Spain	3229	1625 (50.0)	58	477	27	7 (26.0)	0	12	100.0%	85.7%	Jul
Sweden									0.0%	0.0%	No Report
Switzerland	478	429 (90.0)	20	29	13	13 (100.0)	0	0	100.0%	100.0%	Jul
Tajikistan	16	1 (6.0)	0	15	16	0 (0.0)	0	16	85.7%	28.6%	Jul
The former Yugoslav Republic of Macedonia	163	50 (31.0)	18	95	99	0 (0.0)	2	97	71.4%	28.6%	May
Turkey	5694	137 (2.0)	82	5475	5057	211 (4.0)	261	4585	100.0%	71.4%	Jul
Turkmenistan	5	0 (0.0)	0	5	5	0 (0.0)	0	5	71.4%	71.4%	Jun
Ukraine	471	49 (10.0)	2	420	977	604 (62.0)	10	363	100.0%	100.0%	Jul
United Kingdom	2926	792 (27.0)	0	2134	527	5 (1.0)	0	522	100.0%	71.4%	Jul
Uzbekistan	230	168 (73.0)	13	49	68	1 (1.0)	3	64	100.0%	57.1%	Jul
Total / Average	26195	8437 (32%)	318	16334	18385	1290 (7%)	393	16684	89.8%	75.8%	

*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.

Data source: Aggregated monthly lab data provided by laboratories of the regional measles and rubella lab network.

Table 5: Classification of AFP cases, surveillance performance and weekly reporting to WHO EURO by country, 2010-2011, WHO European Region

Countries	2010 (1-53 weeks)										2011 (1-34 weeks)														
	AFP Cases ¹	AFP cases under 15 year of age	Hot AFP Cases ²	Classification					Rates			AFP Cases ¹	AFP cases under 15 years of age	Hot AFP Cases ²	Classification					Rates			Reporting		
				Polio Compatible	Pending	Discarded	Wild Polio cases	VDPV/VAPP	Non polio AFP rate ³	Adequate Stool collection	Surv. Index ⁵				Polio Compatible	Pending	Discarded	Wild Polio cases	VDPV/VAPP	Non polio AFP rate ³	Adequate Stool collection	Surv. Index ⁵	% Completeness	% Timeliness	Week of last report
Albania	13	13	0	0	0	13	0	0	1.79	100.0	1.00	1	1	0	0	0	1	0	0	0.21	100.0	0.2	82.0	38.0	33
Andorra	0	0	0	0	0	0	0	0	0.00	0.0	0.00	0	0	0	0	0	0	0	0	0.00	0.0	0.0	97.0	14.0	34
Armenia	13	13	1	0	0	13	0	0	2.08	61.5	0.62	13	13	2	0	5	8	0	0	1.89	84.6	0.8	97.0	64.0	34
Austria	3	3	0	0	0	3	0	0	0.24	0.0	0.00	1	1	0	0	1	0	0	0	0.00	0.0	0.0	85.0	26.0	30
Azerbaijan	29	29	0	0	0	29	0	0	1.36	100.0	1.00	23	23	0	0	16	7	0	0	0.48	100.0	0.5	85.0	82.0	34
Belarus	41	41	2	0	0	41	0	0	2.92	92.7	0.98	27	27	2	0	9	18	0	0	1.91	77.8	0.9	51.0	52.0	34
Belgium	3	3	0	0	0	3	0	0	0.17	0.0	0.06	1	1	0	0	0	1	0	0	0.08	0.0	0.0	71.0	44.0	32
Bosnia and Herzegovina	6	6	0	0	0	6	0	0	1.05	66.7	0.83	2	2	1	0	1	1	0	0	0.27	50.0	0.1	88.0	55.0	33
Bulgaria	13	13	2	0	0	13	0	0	1.28	92.3	0.92	6	6	0	0	4	2	0	0	0.29	83.3	0.3	25.0	23.0	34
Croatia	0	0	0	0	0	0	0	0	0.00	0.0	0.00	0	0	0	0	0	0	0	0	0.00	0.0	0.0	91.0	17.0	32
Cyprus	7	7	0	0	0	7	0	0	4.56	85.7	0.86	2	2	0	0	2	0	0	0	0.00	100.0	0.0	94.0	97.0	34
Czech Republic	2	2	0	0	0	2	0	0	0.14	100.0	0.14	4	4	0	0	0	4	0	0	0.40	100.0	0.4	74.0	73.0	33
Estonia	0	0	0	0	0	0	0	0	0.00	0.0	0.00	0	0	0	0	0	0	0	0	0.00	0.0	0.0	85.0	88.0	34
Georgia	7	7	0	0	0	7	0	0	0.99	100.0	0.99	8	8	1	0	4	4	0	0	0.85	100.0	0.9	91.0	94.0	34
Germany	11	10	0	0	0	11	0	0	0.10	10.0	0.03														
Greece	20	20	1	0	0	20	0	0	1.26	40.0	0.60	17	17	2	0	17	0	0	0	0.00	64.7	0.0	54.0	52.0	33
Hungary	13	13	0	0	0	13	0	0	0.88	38.5	0.54	4	4	0	0	3	1	0	0	0.10	25.0	0.0	91.0	61.0	33
Ireland	2	2	0	0	0	2	0	0	0.21	50.0	0.10	4	4	0	0	1	3	0	0	0.46	0.0	0.1	85.0	26.0	30
Israel	11	11	0	0	0	11	0	0	0.55	0.0	0.15	8	7	0	0	0	8	0	0	0.58	0.0	0.1	71.0	73.0	34
Italy	53	53	0	0	0	53	0	0	0.62	58.5	0.39	40	40	1	0	25	15	0	0	0.26	52.5	0.1	5.0	5.0	28
Kazakhstan*	113	112	4	0	1	111	1	0	2.95	99.1	0.99	49	49	0	0	26	23	0	0	0.90	98.0	0.9	22.0	20.0	25
Kyrgyzstan	68	64	0	0	0	68	0	0	4.22	96.9	1.00	37	34	0	0	6	31	0	0	2.85	100.0	1.0	11.0	11.0	34
Latvia	5	5	0	0	0	5	0	0	1.61	100.0	1.00	0	0	0	0	0	0	0	0	0.00	0.0	0.0	88.0	82.0	32
Lithuania	10	10	0	0	0	10	0	0	2.10	100.0	1.00	10	10	0	0	3	7	0	0	2.24	100.0	1.0	94.0	79.0	34
Malta	0	0	0	0	0	0	0	0	0.00	0.0	0.00	0	0	0	0	0	0	0	0	0.00	0.0	0.0	85.0	14.0	30
Montenegro	1	1	0	0	0	1	0	0	0.83	100.0	0.83	1	1	0	0	0	1	0	0	1.25	0.0	1.0	85.0	88.0	34
Norway	9	9	0	0	0	9	0	0	0.99	55.6	0.77	3	3	0	0	3	0	0	0	0.00	33.3	0.0	88.0	26.0	34
Poland	47	47	0	0	0	46	0	1	0.82	72.3	0.68	25	25	1	0	10	15	0	0	0.40	56.0	0.3	94.0	73.0	33
Portugal	8	8	0	0	0	8	0	0	0.49	50.0	0.31	4	4	0	0	1	3	0	0	0.27	75.0	0.3	74.0	2.0	26
Republic of Moldova	15	15	3	0	0	15	0	0	2.52	73.3	0.87	5	5	0	0	3	2	0	0	0.51	100.0	0.5	88.0	91.0	34
Romania	16	16	1	0	0	16	0	0	0.50	100.0	0.50	14	14	0	0	1	13	0	0	0.60	100.0	0.6	88.0	85.0	38
Russian Federation*	397	390	68	0	0	378	14	5	1.80	94.9	0.95	253	252	19	0	84	169	0	0	1.18	93.3	1.1	77.0	79.0	34
Serbia	20	20	0	0	0	20	0	0	1.15	90.0	0.95	4	4	1	0	2	2	0	0	0.17	75.0	0.2	82.0	82.0	34
Slovakia	1	1	0	0	0	1	0	0	0.12	0.0	0.00	2	2	0	0	0	2	0	0	0.37	100.0	0.4	71.0	64.0	34
Slovenia	0	0	0	0	0	0	0	0	0.00	0.0	0.00	0	0	0	0	0	0	0	0	0.00	0.0	0.0	94.0	76.0	34
Spain	31	31	2	0	0	31	0	0	0.46	45.2	0.34	15	15	0	0	6	9	0	0	0.19	13.3	0.1	94.0	67.0	34
Switzerland	9	9	0	0	0	9	0	0	0.78	33.3	0.43	4	3	0	0	0	4	0	0	0.52	66.7	0.3	82.0	44.0	34
Tajikistan*	712	585	0	58	0	193	460	1	7.50	86.7	0.88	35	32	0	0	13	22	0	0	1.27	93.8	1.2	71.0	73.0	33
The former Yugoslav Republic of Macedonia	7	7	0	0	0	7	0	0	1.95	100.0	1.00	3	3	1	0	2	1	0	0	0.42	100.0	0.4	91.0	88.0	34
Turkey	217	211	6	0	0	240	0	2	1.08	74.4	0.79	126	126	2	0	25	101	0	0	0.75	84.1	0.7	85.0	88.0	34
Turkmenistan*	50	50	0	0	0	46	3	1	3.06	100.0	1.00	22	22	0	0	3	19	0	0	1.88	100.0	1.9	45.0	47.0	34
Ukraine	130	125	22	0	0	129	0	1	2.04	96.0	0.98	77	77	13	0	31	46	0	0	1.08	97.4	1.0	88.0	91.0	33
Uzbekistan	146	132	4	0	0	146	0	0	1.84	97.7	0.98	144	141	4	0	59	85	0	0	1.60	95.7	1.0	71.0	67.0	34
Average/Total	2259	2094	116	58	1	1736	478	11	1.66	86.00	0.89	994	982	50	0	366	628	0	0	0.76	87.00	0.7	75.0	56.0	

¹ AFP case of all ages (Denmark, Finland, France, Iceland, Luxembourg, Monaco, Netherlands, San Marino, Sweden and United Kingdom do not report AFP cases. High quality surveillance (e.g. enterovirus and/or environmental) to detect poliovirus exists in Member States with no AFP surveillance.

² Hot cases = AFP case reported with a priority code (e.g. less than three doses of polio vaccine/Clinically polio/Recent travel to endemic country/high risk group).

³ Non-polio AFP cases per 100 000 children under the age of 15 years (annualized for current year). Number of non-polio (discarded) AFP cases X 100000 / total population under 15 years.

⁴ two stool samples collected with 14 days and 48 hours apart.

⁵ Surveillance Index = non-polio AFP rate up to 1.0 x (% AFP cases with at least 1 adequate specimens within 14 days of onset).

*Countries infected in 2010. Nonpolio AFP Rate and Surveillance Index targets for these member states have been revised to 2.0 and 1.6 respectively.

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