WHO Epidemiological Brief

World Health Organization

REGIONAL OFFICE FOR **Europe**

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

Highlighting in the WHO European Region:

- Update on measles in the European Region
- Ukraine: Measles outbreak
- Status and source of regional measles and rubella data
- Establishment of European Regional Verification Commission for Measles and Rubella Elimination (RVC)
- Acute Flaccid Paralysis Surveillance: Performance Indicators

Summary

Update on measles and rubella
The Region continues to experience a significant number of both measles and rubella cases, with more than 34 000 confirmed measles cases and nearly 4 000 suspected rubella cases in 2011. A rubella outbreak in Romania and an ongoing measles outbreak in Ukraine are of particular note and concern.

European Regional Verification Commission for Measles and Rubella Elimination (RVC)
The first meeting of the RVC took place in Copenhagen in January 2011. At this meeting, the RVC adopted a framework developed by the WHO Regional Office for Europe to document progress towards and verify the 2015 elimination goal.

Acute Flaccid Paralysis Surveillance
In the European Region, many Member States conducting AFP surveillance are not achieving WHO targets for case detection and adequate stool specimen collection. To promptly detect poliovirus importation in a Member State, it is crucial that the targets for these two indicators are achieved.

Update on measles and rubella in the European Region

Measles in 2011
As of 1 February 2012, a total of 34 250 confirmed measles cases have been reported in the WHO European Region in 2011 by 42 Member States. The annual measles data, acquired through monthly reporting from Member States, should be completed with the December report from each Member State.

Measles in December 2011 (monthly report):
The total of 965 cases reported in December is within the range of monthly cases reported in November (970), but higher than measles morbidity data reported in October and September (618 and 729 cases respectively). The number of reported measles cases is high, and increasing in the last two months of 2011, in France (121 in November, 140 in December), Romania (388 in November, 544 in December) and the Russian Federation (207 in November, 176 in December).

Expected monthly measles surveillance reports for December have been received from 41 Member States; 17 countries reported 965 confirmed measles cases and 24 provided a "zero" report (no measles cases in December).

Rubella in 2011
As of 01 February 2012, 3706 suspected rubella cases were reported in 2011 by 25 of 42 Member States. Of these cases, 76 were discarded and 3629 were confirmed. However, only 456 are laboratory confirmed rubella (reported by eighteen Member States).

Rubella in December 2011 (monthly report):
The total of 1389 suspected (1375 of these confirmed) rubella cases were reported in December, . Highest number of cases in November and December is reported from Romania (1529 cases in November and 1375 in December). A rubella outbreak in the Salaj region of north-west Romania was reported to WHO in December 2011; due to this outbreak, Romania experienced 3380 confirmed cases in 2011.

Reports for December were received from 33 of 42 Member States. Most countries provided a "zero" report (29 with no cases in December), and four countries reported 1389 suspected rubella cases (Armenia, Georgia, Ireland, Romania).

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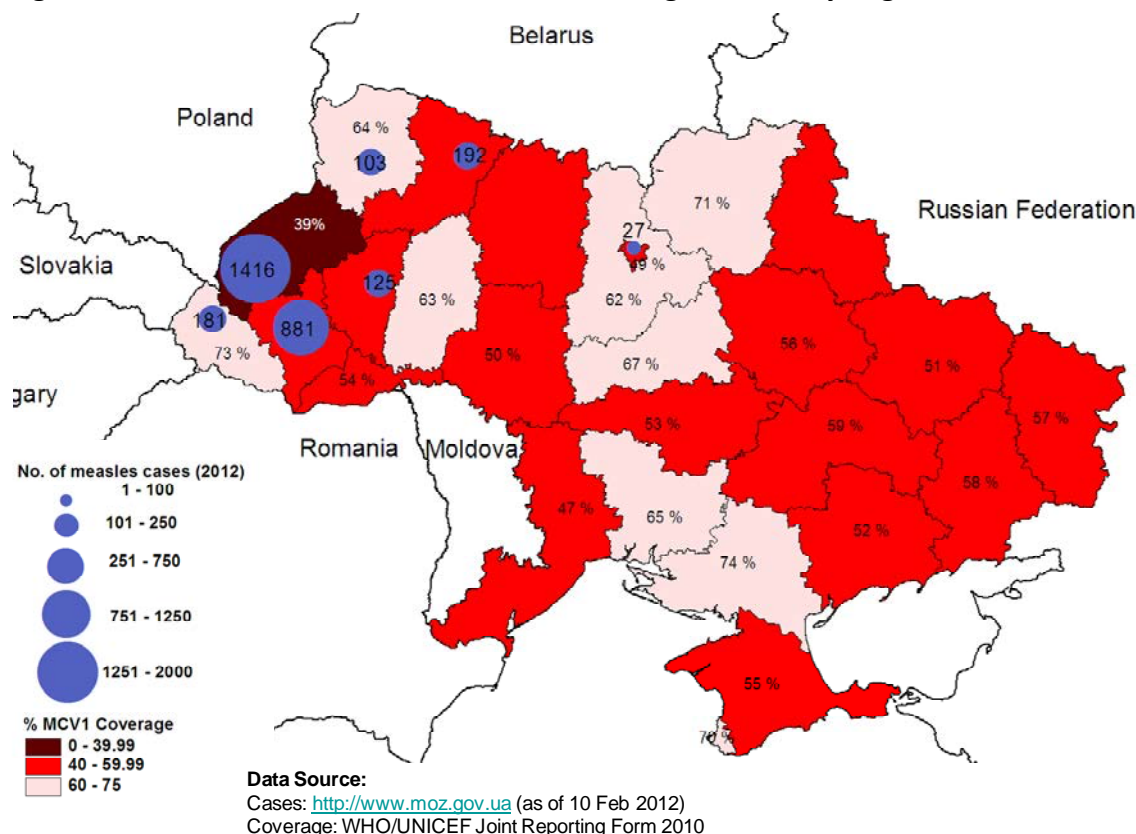
Ukraine: Measles outbreak

According to monthly reports, 194 cases of measles were diagnosed in Ukraine between January and October 2011. Ukraine has not submitted measles and rubella data to the WHO Regional Office for Europe for the last two months of 2011, when national health authorities informed WHO of an increase in measles morbidity in western regions of the country (most of them in Lviv and Ivano-Frankivsk regions), where outbreaks among high-school students were reported.

As of 10 February 2012, 3 162 suspected cases of measles were reported by the Ukrainian Ministry of Health on their web site since the beginning of the year. Over the course of January and the beginning of February 2012, it is clear that Ukraine is facing a large outbreak and that transmission is continuing. Most of the cases are located in western administrative regions, with the highest count in the Lviv region (1 416 cases in 2012, MCV1 coverage <40%) (See Figure 1). According to the WHO/UNICEF Joint Reporting Form (JRF) for 2010, official national coverage with first dose of measles-mumps-rubella combined vaccine (MMR1) was 56.1%, and coverage with second dose of measles-mumps-rubella combined vaccine (MMR2) was 40.7%. Similarly low cov-

erage was reported for other vaccines used in the immunization programme (DTP3 52%, HepB 48%, Polio 3 58%). Given the sub-optimal vaccination coverage rates at both national and sub-national levels in Ukraine, there is a threat that the current measles outbreak could match that of the large outbreak that occurred in 2006, with over 44 000 cases reported. Outbreaks of other vaccine preventable diseases are also highly possible, and this is of particular concern given that Ukraine has the largest cohort of unimmunized children in the Region.

The Ministry of Health announced that a special task force has been established and that a number of control measures have been put into place, including school closures and limiting visitors to hospitals. The Ministry of Health has requested that the WHO Regional Office for Europe provide technical assistance on how to localize and prevent the spread of measles cases in the country. WHO has emphasized that best practice for managing such outbreaks involves conducting a mass immunization campaign complemented by communications addressing the disease burden, vaccine safety and effectiveness. Experts from WHO headquarters and the Regional Office for Europe, ECDC, CDC and UNICEF visited Ukraine between 13-14 February to offer technical assistance.

Figure 1. Measles cases in 2012 and MCV1 coverage in 2010 by Region, Ukraine.

Data Source:
Cases: http://www.moz.gov.ua (as of 10 Feb 2012)
Coverage: WHO/UNICEF Joint Reporting Form 2010

Status and source of regional measles and rubella data

The WHO Regional Office for Europe relies on its Centralized Information System for Infectious Diseases (CISID), a regional data management tool, to receive, manage and disseminate communicable diseases data and information. All the data shared by the WHO Regional Office for Europe, including all data presented and analysed in this and all previous issues of Epidemiological Brief, are maintained in CISID and can be viewed and retrieved directly from the following link: http://data.euro.who.int/cisid/.

Of the 53 Member States in the WHO European Region, 24 directly report monthly measles and rubella data to CISID either by email or using online CISID data entry application. The remaining 29 Member States report to the TESSy database (managed by the European Centre for Disease Control (ECDC)). This data is then submitted, on a monthly basis, to CISID. The WHO Regional Office for Europe is grateful for this collaboration and encourages all Member States to report monthly data in a timely manner (within a period of 25 days after the end of the month) to CISID/TESSy.

Fig 2. Member States of the WHO European Region by database to which they report, CISID/TESSy
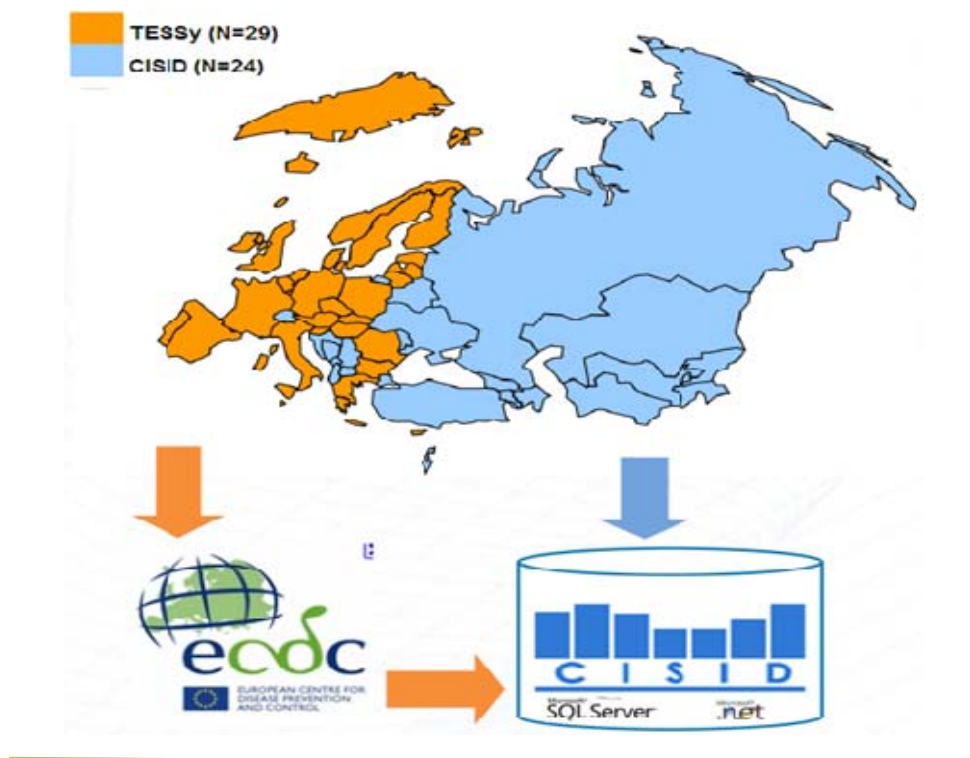
European Regional Verification Commission for Measles and Rubella Elimination (RVC) established

Countries in the WHO European Region have committed to eliminating measles and rubella by 2015. WHO/Europe has developed a framework to document progress towards and verify elimination.

The European Regional Verification Commission for Measles and Rubella Elimination (RVC) met for the first time on 24–25 January 2012, in Copenhagen,

Denmark. Zsuzsanna Jakab, WHO Regional Director for Europe, welcomed RVC's eight members and thanked them for their commitment to the verification process.

The RVC will meet at least once a year to evaluate and verify progress towards elimination and, when necessary, visit countries to deal with specific issues. It will liaise with national commissions overseeing the verification process within countries. Advocating further action where necessary will be another key part of its work.

Acute Flaccid Paralysis Surveillance: Performance Indicators

Surveillance of acute flaccid paralysis (AFP) has proven to be a reliable measure for demonstrating the absence of wild poliovirus transmission and continues to be a "golden standard" for poliovirus surveillance. In the WHO European Region, AFP surveillance performance is monitored using WHO targets for case detection and adequate stool specimen collection. In 2011, 42 of the 53 member states in the WHO European Region conducted AFP surveillance. The target of detecting and reporting at least one non-polio AFP (NPAFP) case per 100 000 children ≤ 14 years of age was achieved by only 13 (34%) of the 38 Member States that have not experienced polio cases in recent years (Figure 3a). Of the four Member States that experienced polio outbreaks in 2010, only two (Kazakhstan and Tajikistan) reported NPAFP

detection rates of at least two cases per 100 000 children ≤ 14 years of age. The adequate stool specimen collection target of ≥80% was attained by only 21 (50%) countries (Figure 3b).
These two indicators are key to assessing the quality of AFP surveillance in the Member States and in identifying gaps in surveillance. To promptly detect poliovirus importation in a Member State, it is crucial that the targets for these two indicators are achieved.

The WHO European Region was certified polio-free in 2002. In 2010, four Member States in the Region experienced outbreaks of polio, after a wild poliovirus importation in Tajikistan. Effective measures were taken to interrupt the circulation of imported wild poliovirus within six months, and in August 2011 it was announced by the Regional Certification Commission that the WHO European Region had retained its polio-free status.

Figure 3a. Non-polio AFP rate per 100 000 children ≤ 14 years of age, by Member State in the WHO European Region, in 2011
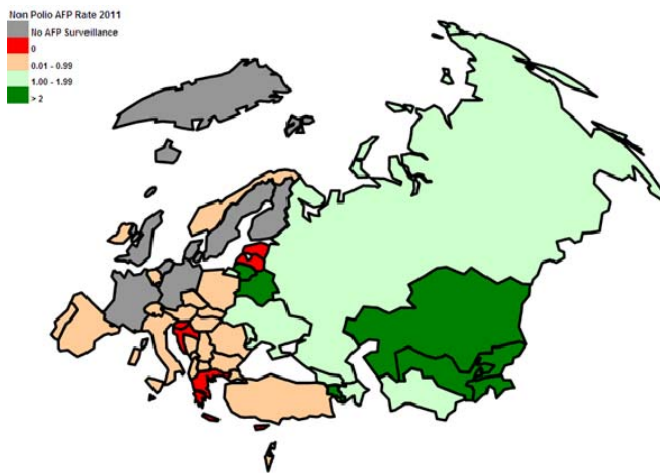
Figure 3b. Adequate stool collection target (≥80%) by Member State in the WHO European Region, in 2011.
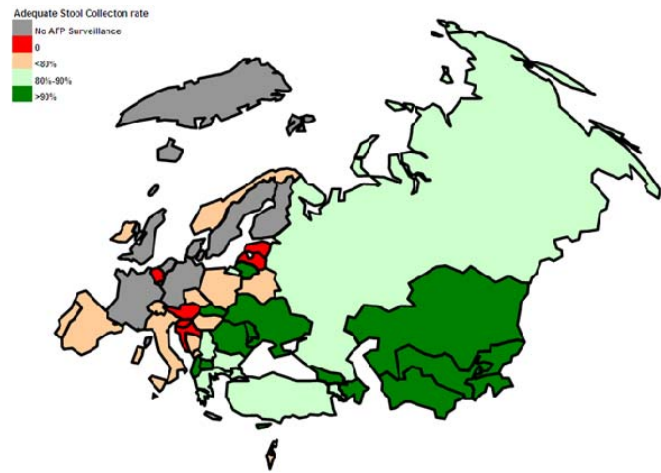
Monthly Summary Table 1. Classification of reported suspected measles cases, January—December 2011 (data as of 1 Feb 2012)

Country	Total Population[1]	Incidence Rate per 1 million population (Jan-Dec)	Total confirmed measles	Classification Lab confirmed	Epi-Link	Clinical[2]	Discarded	Importation[3]	Reporting Complete-ness	Timeliness	Month of last report	Surveillance Indicators Laboratory investigation rate	detection rate	Source of infection
Albania	3 214 691	0.0	0	0	0	0	27	0	100%	67%	Dec	100.0%	0.84	100.0%
Andorra	67 722	0.0	0	0	0	0	0	0	67%	33%	Aug	-	0.00	-
Armenia	3 098 784	0.0	0	0	0	0	19	0	92%	75%	Dec	100.0%	0.61	100.0%
Austria	8 405 570	9.3	99	23	8	68	0	21	92%	50%	Dec	33.0%	NA	NA
Azerbaijan	9 309 301	0.0	0	0	0	0	10	0	100%	83%	Dec	100.0%	0.11	100.0%
Belarus*	9 568 453	4.9	51	51	0	0	0	4	100%	67%	Dec	100.0%	NA	NA
Belgium	10 741 129	49.7	576	379	79	118	0	42	75%	33%	Dec	76.5%	NA	NA
Bosnia and Herzegovina*	3 755 478	1.3	5	0	0	5	0	0	17%	0%	Oct	0.0%	NA	NA
Bulgaria*	7 449 799	21.1	157	134	0	23	0	0	100%	33%	Dec	85.4%	NA	NA
Croatia	4 397 338	1.1	7	5	2	0	0	2	83%	33%	Nov	100.0%	NA	NA
Cyprus	1 116 113	0.0	0	0	0	0	0	0	100%	58%	Dec	-	0.00	-
Czech Republic	10 522 894	0.7	17	17	0	0	0	10	75%	58%	Dec	100.0%	0.00	100.0%
Denmark	5 570 660	14.2	83	76	7	0	0	4	100%	58%	Dec	100.0%	NA	NA
Estonia	1 340 887	1.5	7	7	0	0	0	5	100%	67%	Dec	100.0%	NA	NA
Finland	5 381 049	5.0	29	29	0	0	0	2	92%	58%	Dec	100.0%	NA	NA
France	63 103 600	236.6	15206	4979	1896	8331	0	277	83%	25%	Dec	53.6%	NA	NA
Georgia*	4 330 693	14.8	64	9	24	31	0	0	100%	83%	Dec	22.5%	NA	NA
Germany	82 140 752	18.3	1600	913	567	120	0	96	42%	42%	Dec	88.4%	NA	NA
Greece	11 392 891	3.1	40	35	1	4	0	5	100%	50%	Dec	92.3%	NA	NA
Hungary	9 964 621	0.4	4	4	0	0	0	0	100%	58%	Dec	100.0%	0.00	0.0%
Iceland	324 050	0.0	0	0	0	0	0	0	100%	50%	Dec	-	0.00	-
Ireland	4 527 814	64.0	301	124	67	110	0	11	92%	50%	Dec	65.4%	NA	NA
Israel*	7 545 524	6.1	46	10	0	36	0	0	100%	100%	Dec	21.7%	NA	NA
Italy	60 686 264	84.9	5181	1957	1832	1392	1	27	67%	17%	Dec	61.0%	NA	NA
Kazakhstan*	16 240 343	1.8	30	24	0	6	0	0	25%	8%	Mar	80.0%	NA	NA
Kyrgyzstan	5 405 749	40.9	221	221	0	0	366	0	67%	8%	Aug	100.0%	NA	NA
Latvia	2 242 757	0.0	1	1	0	0	0	1	67%	17%	Dec	100.0%	0.00	100.0%
Lithuania	3 311 227	1.2	7	7	0	0	0	3	100%	50%	Dec	100.0%	NA	NA
Luxembourg	514 108	7.8	6	6	0	0	0	2	92%	50%	Dec	100.0%	NA	NA
Malta	418 134	7.2	4	4	0	0	0	1	100%	58%	Dec	100.0%	NA	NA
Monaco	37 785	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA
Montenegro*	632 157	7.9	5	5	0	0	0	0	42%	33%	Jun	100.0%	NA	NA
Netherlands	16 647 522	1.9	46	29	16	1	0	14	67%	17%	Dec	96.7%	NA	NA
Norway	4 917 917	5.9	38	37	0	1	0	9	75%	33%	Dec	97.4%	NA	NA
Poland	38 307 380	1.0	38	29	3	6	0	1	92%	33%	Dec	88.6%	0.00	100.0%
Portugal	10 679 646	0.0	2	2	0	0	0	2	100%	33%	Dec	100.0%	0.00	100.0%
Republic of Moldova	3 555 765	0.0	0	0	0	0	0	0	83%	8%	Nov	-	0.00	-
Romania	21 445 408	192.4	4133	1747	2361	25	0	6	50%	0%	Dec	98.9%	NA	NA
Russian Federation	142 822 544	3.9	635	628	6	1	54	84	100%	100%	Dec	100.0%	NA	NA
San Marino	29 332	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA
Serbia*	9 842 939	36.4	358	75	13	270	0	0	100%	58%	Dec	21.7%	NA	NA
Slovakia	5 470 405	0.0	2	2	0	0	0	2	100%	58%	Dec	100.0%	0.00	100.0%
Slovenia	2 035 215	7.4	22	22	0	0	0	7	100%	67%	Dec	100.0%	NA	NA
Spain	46 366 600	41.7	1986	1524	236	226	0	51	100%	58%	Dec	87.1%	NA	NA
Sweden	9 427 367	1.0	26	26	0	0	0	17	100%	58%	Dec	100.0%	0.00	88.5%
Switzerland	7 694 595	79.1	657	405	93	159	112	48	100%	75%	Dec	74.1%	NA	NA
Tajikistan*	6 982 372	0.0	0	0	0	0	0	0	100%	25%	Dec	-	0.00	-
The former Yugoslav Republic of Macedonia*	2 063 819	354.2	731	53	241	437	0	0	100%	83%	Dec	10.8%	NA	NA
Turkey	73 689 680	1.3	105	105	0	0	0	11	92%	58%	Nov	100.0%	NA	NA
Turkmenistan	5 099 686	0.0	0	0	0	0	0	0	100%	25%	Dec	-	0.00	-
Ukraine*	45 242 024	3.8	173	64	0	109	0	0	75%	75%	Oct	37.0%	NA	NA
United Kingdom	62 439 828	15.7	1083	1083	0	0	0	103	92%	50%	Dec	100.0%	NA	NA
Uzbekistan*	27 802 722	16.8	468	199	0	269	0	0	83%	8%	Oct	42.5%	NA	NA
Total/Averages	**899 321 103**	**37.1**	**34250**	**15050**	**7452**	**11748**	**589**	**868**	**82.5%**	**45.3%**		**65.4%**	**0.07**	**62.9%**

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

[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 year 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 denominator.

Monthly Summary Table 2. Classification of reported suspected rubella cases, January—December 2011 (data as of 1 Feb 2012)

Country	Total Population[1]	Annualized Incidence Rate per 1 million population	Total confirmed Rubella	Classification				Importation[3]	Reporting			Surveillance Indicators			
				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	3 214 691	0.3	1	1	0	0	3	0	100%	75%	Dec	100.0%	0.09	100.0%	100.0%
Andorra	67 722	0.0	0	0	0	0	0	0	67%	25%	Aug	-	0.00	-	-
Armenia	3 098 784	0.0	0	0	0	0	31	0	33%	17%	Apr	93.5%	1.00	100.0%	100.0%
Austria	8 405 570	0.2	3	0	0	3	0	1	83%	17%	Dec	33.3%	0.00	100.0%	100.0%
Azerbaijan	9 309 301	0.0	0	0	0	0	19	0	100%	83%	Dec	100.0%	0.20	100.0%	100.0%
Belarus	9 568 453	2.1	20	20	0	0	0	0	92%	58%	Dec	0.0%	NA	NA	NA
Belgium	10 741 129	0.0	0	0	0	0	0	0	25%	0%	Oct	-	0.00	-	-
Bosnia and Herzegovina	3 755 478	6.1	23	6	4	13	0	0	17%	0%	Oct	0.0%	NA	NA	NA
Bulgaria	7 449 799	4.4	33	1	0	32	0	0	58%	17%	Nov	0.0%	NA	NA	NA
Croatia	4 397 338	0.0	0	0	0	0	0	0	33%	17%	Jul	-	0.00	-	-
Cyprus	1 116 113	0.0	0	0	0	0	0	0	100%	50%	Dec	-	0.00	-	-
Czech Republic	10 522 894	2.5	28	12	10	6	0	2	83%	33%	Dec	100.0%	NA	NA	NA
Denmark	5 570 660	0.0	0	0	0	0	0	0	42%	8%	Dec	-	0.00	-	-
Estonia	1 340 887	0.0	0	0	0	0	0	0	100%	50%	Dec	-	0.00	-	-
Finland	5 381 049	0.6	8	7	1	0	0	5	92%	42%	Dec	100.0%	0.00	62.5%	62.5%
France	63 103 600	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA	NA
Georgia	4 330 693	15.2	66	3	0	63	0	0	100%	83%	Dec	0.0%	NA	NA	NA
Germany	82 140 752	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA	NA
Greece	11 392 891	0.0	0	0	0	0	0	0	83%	25%	Dec	-	0.00	-	-
Hungary	9 964 621	0.0	3	3	0	0	0	3	100%	33%	Dec	100.0%	0.00	100.0%	100.0%
Iceland	324 050	0.0	0	0	0	0	0	0	100%	42%	Dec	-	0.00	-	-
Ireland	4 527 814	2.0	9	1	1	7	0	0	92%	33%	Dec	12.5%	NA	NA	NA
Israel	7 545 524	0.1	1	1	0	0	0	0	100%	67%	Dec	0.0%	0.00	0.0%	0.0%
Italy	60 686 264	0.0	0	0	0	0	0	0	17%	8%	Dec	-	0.00	-	-
Kazakhstan	16 240 343	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA	NA
Kyrgyzstan	5 405 749	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA	NA
Latvia	2 242 757	1.3	3	2	1	0	0	0	75%	17%	Dec	100.0%	NA	NA	NA
Lithuania	3 311 227	0.0	0	0	0	0	0	0	92%	33%	Dec	-	0.00	-	-
Luxembourg	514 108	0.0	0	0	0	0	0	0	100%	33%	Dec	-	0.00	-	-
Malta	418 134	0.0	0	0	0	0	0	0	100%	50%	Dec	-	0.00	-	-
Monaco	37 785	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA	NA
Montenegro	632 157	0.0	0	0	0	0	0	0	33%	25%	Apr	-	0.00	-	-
Netherlands	16 647 522	0.0	1	0	1	0	0	1	67%	8%	Dec	-	0.00	100.0%	100.0%
Norway	4 917 917	0.2	2	1	1	0	0	1	83%	25%	Dec	100.0%	0.00	100.0%	100.0%
Poland	38 307 380	0.0	0	0	0	0	0	0	8%	0%	Apr	-	0.00	-	-
Portugal	10 679 646	0.0	0	0	0	0	1	0	92%	25%	Dec	0.0%	0.01	0.0%	0.0%
Republic of Moldova	3 555 765	0.0	0	0	0	0	0	0	100%	17%	Dec	-	0.00	-	-
Romania	21 445 408	157.6	3380	381	2950	49	0	0	58%	8%	Dec	78.8%	NA	NA	NA
Russian Federation	142 822 544	-	-	-	-	-	-	-	-	-	No Report	100.0%	NA	NA	NA
San Marino	29 332	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA	NA
Serbia	9 842 939	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA	NA
Slovakia	5 470 405	0.0	0	0	0	0	0	0	100%	42%	Dec	-	0.00	-	-
Slovenia	2 035 215	0.0	0	0	0	0	0	0	33%	8%	Dec	-	0.00	-	-
Spain	46 366 600	0.2	7	5	0	2	0	0	83%	33%	Dec	85.7%	0.00	100.0%	100.0%
Sweden	9 427 367	0.3	5	4	1	0	0	2	100%	42%	Dec	100.0%	0.00	60.0%	60.0%
Switzerland	7 694 595	0.0	0	0	0	0	22	0	75%	25%	Dec	90.9%	0.29	9.1%	9.1%
Tajikistan	6 982 372	0.0	0	0	0	0	0	0	100%	25%	Dec	-	0.00	-	-
The former Yugoslav Republic of Macedonia	2 063 819	3.4	7	0	0	7	0	0	100%	75%	Dec	0.0%	NA	NA	NA
Turkey	73 689 680	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA	NA
Turkmenistan	5 099 686	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA	NA
Ukraine	45 242 024	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA	NA
United Kingdom	62 439 828	0.1	6	6	0	0	0	0	92%	33%	Dec	100.0%	0.00	100.0%	100.0%
Uzbekistan	27 802 722	0.8	23	1	0	22	0	0	83%	8%	Oct	0.0%	0.00	0.0%	0.0%
Total/Averages	**899 321 103**	**4.0**	**3629**	**455**	**2970**	**204**	**76**	**15**	**60.2%**	**24.8%**		**63.7%**	**0.09**	**94.4%**	**0.0%**

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

[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.

Monthly Summary Table 3: Confirmed measles cases for last 12 months, November 2010—December 2011 (data as of 1 Feb 2012)

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	27	0 (0.0)	0	27	5	1 (20.0)	0	4	100.0%	83.3%	Dec
Andorra											No Lab
Armenia	49	0 (0.0)	0	49	49	0 (0.0)	4	45	100.0%	83.3%	Dec
Austria	1337	80 (6.0)	0	1257	5646	3 (0.0)	0	5643	100.0%	91.7%	Dec
Azerbaijan	130	0 (0.0)	0	130	130	0 (0.0)	0	130	100.0%	33.3%	Dec
Belarus	474	58 (12.0)	11	385	377	23 (6.0)	3	351	100.0%	91.7%	Dec
Belgium	706	326 (46.0)	15	356	61	7 (11.0)	5	42	100.0%	100.0%	Dec
Bosnia and Herzegovina											No Report
Bulgaria	82	35 (43.0)	0	47	59	2 (3.0)	0	57	100.0%	83.3%	Dec
Croatia	16	11 (69.0)	0	5	14	0 (0.0)	0	14	100.0%	100.0%	Dec
Cyprus	0	0	0	0	0	0	0	0	100.0%	100.0%	Dec
Czech Republic	42	19 (45.0)	8	15	64	10 (16.0)	4	50	100.0%	83.3%	Dec
Denmark	1280	191 (15.0)	33	1056	627	23 (4.0)	86	518	91.7%	33.3%	Nov
Estonia	157	7 (4.0)	2	148	609	4 (1.0)	0	605	100.0%	100.0%	Dec
Finland	1695	132 (8.0)	0	1562	621	10 (2.0)	0	611	100.0%	75.0%	Dec
France	3148	2017 (64.0)	13	1114	0	0	0	0	91.7%	50.0%	Dec
Georgia	60	8 (13.0)	0	52	65	5 (8.0)	8	52	100.0%	50.0%	Dec
Germany	1081	658 (61.0)	5	418	90	5 (6.0)	3	82	100.0%	100.0%	Dec
Greece	138	25 (18.0)	0	113	292	65 (22.0)	0	227	100.0%	41.7%	Dec
Hungary	82	12 (15.0)	0	70	349	7 (2.0)	1	341	100.0%	91.7%	Dec
Iceland	54	0 (0.0)	0	54	91	0 (0.0)	0	91	100.0%	58.3%	Dec
Ireland	553	163 (29.0)	26	364	1712	3 (0.0)	17	1692	100.0%	75.0%	Dec
Israel	124	32 (26.0)	0	92	762	83 (11.0)	0	679	100.0%	83.3%	Dec
Italy											No Report
Kazakhstan	187	90 (48.0)	4	93	169	2 (1.0)	4	163	100.0%	75.0%	Dec
Kyrgyzstan	939	248 (26.0)	8	681	850	9 (1.0)	18	821	100.0%	75.0%	Dec
Latvia	461	2 (0.0)	1	458	466	4 (1.0)	5	457	100.0%	83.3%	Dec
Lithuania	20	6 (30.0)	2	12	19	0 (0.0)	2	17	100.0%	91.7%	Dec
Luxembourg	128	11 (9.0)	0	117	53	2 (4.0)	1	50	100.0%	91.7%	Dec
Malta	18	5 (28.0)	0	13	1435	11 (1.0)	0	1424	100.0%	91.7%	Dec
Monaco											No Lab
Montenegro											No Lab
Netherlands	131	49 (37.0)	0	82	130	3 (2.0)	0	127	100.0%	58.3%	Dec
Norway	252	85 (34.0)	2	165	44	1 (2.0)	1	42	100.0%	100.0%	Dec
Poland	70	30 (43.0)	3	37	48	6 (13.0)	1	41	100.0%	100.0%	Dec
Portugal	19	4 (21.0)	1	10	0	0	0	0	100.0%	100.0%	Dec
Republic of Moldova	43	1 (2.0)	0	42	43	0 (0.0)	0	43	100.0%	83.3%	Dec
Romania	2998	1959 (65.0)	71	968	1676	650 (39.0)	62	964	100.0%	91.7%	Dec
Russian Federation	5075	1059 (21.0)	8	4008	4606	313 (7.0)	10	4283	100.0%	83.3%	Dec
San Marino											No Lab
Serbia	223	118 (53.0)	3	102	336	1 (0.0)	0	335	100.0%	41.7%	Dec
Slovakia	10	2 (20.0)	0	8	13	6 (46.0)	0	7	100.0%	83.3%	Dec
Slovenia	151	41 (27.0)	6	104	19	0 (0.0)	0	19	100.0%	91.7%	Dec
Spain	3348	1718 (51.0)	60	500	27	7 (26.0)	0	12	66.7%	58.3%	Aug
Sweden											No Report
Switzerland	491	441 (90.0)	20	30	15	15 (100.0)	0	0	100.0%	91.7%	Dec
Tajikistan	20	1 (5.0)	0	19	20	0 (0.0)	0	20	66.7%	16.7%	Sep
The former Yugoslav Republic of Macedonia	176	53 (30.0)	18	105	122	0 (0.0)	2	120	100.0%	25.0%	Dec
Turkey	6684	147 (2.0)	92	6445	6047	245 (4.0)	305	5497	100.0%	75.0%	Dec
Turkmenistan	59	0 (0.0)	2	57	57	0 (0.0)	0	57	100.0%	58.3%	Dec
Ukraine	638	104 (16.0)	3	531	1104	616 (56.0)	12	476	91.7%	91.7%	Nov
United Kingdom	4514	1139 (25.0)	0	3375	976	7 (1.0)	0	969	100.0%	66.7%	Dec
Uzbekistan	246	176 (72.0)	13	57	76	1 (1.0)	3	72	100.0%	50.0%	Dec
Total / Average	**38136**	**11263 (30%)**	**430**	**25333**	**29974**	**2150 (7%)**	**557**	**27250**	**98.0%**	**75.7%**	

*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.

Monthly Summary Table 4. Measles and rubella laboratory test results, January—December 2011 (data as of 1 Feb 2012)

Country	Total Population[1]	Incidence Rate per 1 million population Jan-Dec 11	Total Cases Jan-Dec 11	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month of last report
Albania	3 214 691	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec
Andorra	67 722	0.0	0	0	0	0	0	0	0	0	0	0	-	-	-	Aug
Armenia	3 098 784	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec
Austria	8 405 570	11.8	99	7	5	5	9	18	33	16	4	2	0	0	-	Dec
Azerbaijan	9 309 301	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec
Belarus	9 568 453	5.3	51	0	0	1	0	16	29	4	0	0	0	0	1	Dec
Belgium	10 741 129	53.6	576	9	23	145	103	123	91	45	10	10	3	13	1	Dec
Bosnia and Herzegovina	3 755 478	1.3	5	0	0	0	0	0	0	0	0	4	1	0	-	Oct
Bulgaria	7 449 799	21.1	157	76	28	27	6	18	1	0	0	1	0	0	0	Dec
Croatia	4 397 338	1.6	7	2	0	0	0	0	3	2	0	0	0	0	0	Nov
Cyprus	1 116 113	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec
Czech Republic	10 522 894	1.6	17	0	0	4	5	4	1	1	1	0	0	0	1	Dec
Denmark	5 570 660	14.9	83	7	13	23	19	17	2	2	0	0	0	0	0	Dec
Estonia	1 340 887	5.2	7	0	0	4	1	1	1	0	0	0	0	0	0	Dec
Finland	5 381 049	5.4	29	1	0	1	2	12	3	0	6	0	1	3	0	Dec
France	63 103 600	241.0	15206	1560	2447	3716	3304	2267	926	408	148	89	80	121	140	Dec
Georgia	4 330 693	14.8	64	0	1	4	3	11	6	7	17	6	7	1	1	Dec
Germany	82 140 752	19.5	1600	70	97	187	430	433	168	112	37	27	12	22	5	Dec
Greece	11 392 891	3.5	40	0	2	6	17	10	2	3	0	0	0	0	0	Dec
Hungary	9 964 621	0.4	4	0	0	0	0	0	0	0	0	0	0	0	4	Dec
Iceland	324 050	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec
Ireland	4 527 814	66.5	301	0	5	11	17	12	30	42	72	60	34	13	5	Dec
Israel	7 545 524	6.1	46	0	0	4	0	3	2	0	0	21	10	4	2	Dec
Italy	60 686 264	85.4	5181	345	340	577	920	1303	849	415	176	99	60	54	43	Dec
Kazakhstan	16 240 343	1.8	30	2	13	15	0	-	-	-	-	-	-	-	-	Mar
Kyrgyzstan	5 405 749	40.9	221	0	0	0	0	0	0	0	0	0	-	-	-	Aug
Latvia	2 242 757	0.4	1	0	0	0	0	0	0	1	0	0	0	0	0	Dec
Lithuania	3 311 227	2.1	7	0	0	0	1	2	4	0	0	0	0	0	0	Dec
Luxembourg	514 108	11.7	6	0	0	1	0	2	2	0	1	0	0	0	0	Dec
Malta	418 134	9.6	4	0	1	0	1	0	0	0	2	0	0	0	0	Dec
Monaco	37 785	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Montenegro	632 157	7.9	5	0	0	3	1	0	1	0	-	-	-	-	-	Jun
Netherlands	16 647 522	2.8	46	2	1	10	16	11	5	0	1	0	0	0	0	Dec
Norway	4 917 917	7.7	38	5	12	7	2	3	4	1	2	1	1	0	0	Dec
Poland	38 307 380	1.0	38	2	2	2	8	5	4	6	4	4	1	0	0	Dec
Portugal	10 679 646	0.2	2	0	0	1	0	0	0	0	0	0	0	0	1	Dec
Republic of Moldova	3 555 765	0.0	0	0	0	0	0	0	0	0	0	0	0	0	-	Nov
Romania	21 445 408	192.7	4133	137	195	407	406	520	460	385	292	248	151	388	544	Dec
Russian Federation	142 822 544	4.4	635	24	24	22	24	20	42	22	7	9	58	207	176	Dec
San Marino	29 332	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Report
Serbia	9 842 939	36.4	358	45	56	120	63	37	25	6	4	2	0	0	0	Dec
Slovakia	5 470 405	0.4	2	0	0	1	0	1	0	0	0	0	0	0	0	Dec
Slovenia	2 035 215	10.8	22	0	0	0	2	1	7	12	0	0	0	0	0	Dec
Spain	46 366 600	42.8	1986	100	162	252	448	362	181	162	93	78	64	77	7	Dec
Sweden	9 427 367	2.8	26	4	1	1	8	4	1	2	1	0	1	3	0	Dec
Switzerland	7 694 595	85.4	657	58	48	109	210	127	58	30	10	1	2	1	3	Dec
Tajikistan	6 982 372	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec
The former Yugoslav	2 063 819	354.2	731	88	95	204	236	74	24	6	2	0	0	0	2	Dec
Turkey	73 689 680	1.4	105	6	31	40	12	5	5	6	0	0	0	0	-	Nov
Turkmenistan	5 099 686	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec
Ukraine	45 242 024	3.8	173	0	1	0	1	10	0	44	45	13	59	-	-	Oct
United Kingdom	62 439 828	17.3	1083	31	33	143	173	186	133	105	60	54	73	63	29	Dec
Uzbekistan	27 802 722	16.8	468	44	58	112	102	90	48	14	0	0	0	-	-	Oct
Total/Averages	**899 321 103**	**38.08**	**34250**	**2625**	**3694**	**6165**	**6550**	**5708**	**5710**	**1859**	**995**	**729**	**618**	**970**	**965**	

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

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) AFP Cases[1]	AFP cases under 15 year of age	Hot AFP Cases[2]	Polio Compatible	Pending	Discarded	Wild Polio cases	VDPV/VAPP	Non polio AFP rate[3]	Adequate Stool collection	Surv. Index[5]	2011 (1-52 weeks) AFP Cases[1]	AFP cases under 15 years of age	Hot AFP Cases[2]	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	4	4	0	0	0	4	0	0	0.56	100.0	0.6	90.0	36.0	49
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	69.0	13.0	36
Armenia	13	13	1	0	0	13	0	0	2.08	61.5	0.62	21	21	1	0	3	18	0	0	2.89	90.5	0.9	100.0	76.0	52
Austria	3	3	0	0	0	3	0	0	0.24	0.0	0.00	2	2	0	0	0	2	0	0	0.16	0.0	0.1	98.0	34.0	50
Azerbaijan	29	29	0	0	0	29	0	0	1.51	100.0	1.00	37	37	0	0	8	29	0	0	1.47	97.3	1.0	92.0	88.0	52
Belarus	41	41	2	0	0	41	0	0	2.85	92.7	0.98	46	46	3	0	14	32	0	0	2.21	76.1	0.8	46.0	46.0	51
Belgium	3	3	0	0	0	3	0	0	0.17	0.0	0.06	1	1	0	0	0	1	0	0	0.06	0.0	0.0	75.0	36.0	46
Bosnia and Herzegovina	6	6	0	0	0	6	0	0	1.06	66.7	0.83	7	7	1	0	6	1	0	0	0.18	42.9	0.1	82.0	53.0	51
Bulgaria	13	13	2	0	0	13	0	0	1.26	92.3	0.92	13	13	0	0	11	2	0	0	0.19	92.3	0.2	50.0	48.0	52
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	90.0	21.0	47
Cyprus	7	7	0	0	0	7	0	0	3.57	85.7	0.86	4	4	0	0	4	0	0	0	0.00	100.0	0.0	94.0	94.0	52
Czech Republic	2	2	0	0	0	2	0	0	0.14	100.0	0.14	8	8	0	0	1	7	0	0	0.47	75.0	0.4	82.0	73.0	52
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	84.0	84.0	52
Georgia	7	7	0	0	0	7	0	0	0.97	100.0	0.97	10	10	1	0	0	9	0	1	1.26	100.0	1.0	96.0	96.0	52
Germany	11	10	0	0	0	11	0	0	0.10	10.0	0.03														
Greece	20	20	1	0	0	20	0	0	1.21	40.0	0.60	24	24	2	0	2	22	0	0	1.31	79.2	0.9	84.0	55.0	52
Hungary	13	13	0	0	0	13	0	0	0.89	38.5	0.54	8	8	0	0	2	6	0	0	0.41	25.0	0.2	100.0	57.0	50
Ireland	2	2	0	0	0	2	0	0	0.21	50.0	0.11	7	7	0	0	0	7	0	0	0.72	14.3	0.3	100.0	23.0	47
Israel	11	11	0	0	0	11	0	0	0.54	0.0	0.15	18	17	0	0	1	17	0	0	0.82	17.6	0.3	80.0	76.0	52
Italy	53	53	0	0	0	53	0	0	0.62	58.5	0.39	63	62	1	0	8	55	0	0	0.64	56.5	0.4	11.0	9.0	50
Kazakhstan*	113	112	4	0	0	112	1	0	2.85	99.1	0.99	101	101	1	0	18	83	0	0	2.05	97.0	1.9	26.0	23.0	51
Kyrgyzstan	68	64	0	0	0	68	0	0	4.24	96.9	1.00	64	61	0	0	6	58	0	0	3.58	100.0	1.0	26.0	26.0	49
Latvia	5	5	0	0	0	5	0	0	1.60	100.0	1.00	0	0	0	0	0	0	0	0	0.00	0.0	0.0	94.0	75.0	49
Lithuania	10	10	0	0	0	10	0	0	2.02	100.0	1.00	10	10	0	0	0	10	0	0	2.04	100.0	1.0	98.0	84.0	52
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	100.0	15.0	52
Montenegro	1	1	0	0	0	1	0	0	0.82	100.0	0.82	3	3	0	0	2	1	0	0	0.83	66.7	0.8	88.0	86.0	51
Norway	9	9	0	0	0	9	0	0	0.98	55.6	0.77	11	11	0	0	7	4	0	0	0.44	9.1	0.3	82.0	26.0	50
Poland	47	47	0	0	0	46	0	1	0.81	72.3	0.67	37	37	3	0	10	27	0	0	0.48	73.0	0.4	96.0	76.0	50
Portugal	8	8	0	0	0	8	0	0	0.50	50.0	0.31	8	7	1	0	1	7	0	0	0.44	42.9	0.3	51.0	3.0	45
Republic of Moldova	15	15	3	0	0	15	0	0	2.52	73.3	0.87	8	8	0	0	1	7	0	0	1.18	100.0	1.0	90.0	90.0	52
Romania	16	16	1	0	0	16	0	0	0.49	100.0	0.49	18	18	0	0	0	18	0	0	0.55	100.0	0.6	92.0	86.0	52
Russian Federation*	397	390	68	0	0	378	14	5	1.76	94.9	0.95	368	366	33	0	31	337	0	0	1.54	92.9	1.4	78.0	78.0	51
Serbia	20	20	0	0	0	20	0	0	1.15	90.0	0.95	10	10	1	0	5	5	0	0	0.29	90.0	0.3	90.0	86.0	52
Slovakia	1	1	0	0	0	1	0	0	0.12	0.0	0.00	2	2	0	0	0	2	0	0	0.24	100.0	0.2	80.0	65.0	51
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	98.0	78.0	52
Spain	31	31	2	0	0	31	0	0	0.45	45.2	0.33	33	33	0	0	9	24	0	0	0.34	30.3	0.2	88.0	59.0	50
Switzerland	9	9	0	0	0	9	0	0	0.77	33.3	0.43	6	3	0	0	0	6	0	0	0.52	66.7	0.3	88.0	38.0	51
Tajikistan*	712	585	0	58	0	193	460	1	7.58	86.7	0.88	55	52	0	0	0	55	0	0	2.16	96.2	1.9	76.0	75.0	51
The former Yugoslav Republic of Macedonia	7	7	0	0	0	7	0	0	1.93	100.0	1.00	3	3	1	0	0	3	0	0	0.84	100.0	0.8	94.0	88.0	51
Turkey	221	215	6	0	0	240	0	2	1.14	74.0	0.79	196	195	3	0	24	171	0	1	0.89	81.0	0.8	86.0	84.0	52
Turkmenistan*	50	50	0	0	0	46	3	1	3.12	100.0	1.00	33	33	0	0	4	29	0	0	1.98	100.0	2.0	55.0	55.0	50
Ukraine	130	125	22	0	0	129	0	1	2.00	96.0	0.98	127	127	31	0	14	112	0	0	1.72	97.6	1.0	90.0	90.0	52
Uzbekistan	146	132	4	0	0	146	0	0	1.81	97.7	0.98	200	197	4	0	24	176	0	0	2.19	96.4	1.0	71.0	67.0	52
Average/Total	**2263**	**2098**	**116**	**58**	**0**	**1737**	**478**	**11**	**1.63**	**86.00**	**0.89**	**1566**	**1548**	**87**	**0**	**216**	**1347**	**0**	**2**	**1.18**	**87.00**	**0.9**	**76.0**	**57.0**	

[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 atleast 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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