

WHO Epidemiological Brief



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

Highlighting in the WHO European Region:

- Measles outbreaks in the WHO European Region and Member States' responses
- Measles in the World Health Organization Region of the Americas – the European connection
- Measles and rubella supplementary immunization activity in Uzbekistan reaches over seven million children
- Outbreak of wild polio virus 1 in China: additional seven cases reported
- Acute flaccid paralysis (AFP) surveillance in the European Region

Summary

Measles outbreaks

During the period 1 January to 30 July 2011, 40 of 53 Member States in the WHO European Region reported 26 025 confirmed measles cases. This represents nearly a three-fold increase in cases compared to the same period in 2007. In response to the measles outbreaks, Member States are strengthening their surveillance activities according to national and regional guidelines, and some have revised their immunization programmes.

Outbreak of wild polio virus 1 in China

As of 19 October there are 18 confirmed polio cases. Half of the cases are in very young children (under 3 years of age) and half in young adults (19–31 years old). China has undertaken remarkable and swift efforts to date to control the outbreak.

Acute flaccid paralysis (AFP) surveillance in the European Region At the 25th meeting of the European Regional Certification Commission on the Eradication of Poliomyelitis (RCC), it was recommended that countries considered at high risk of transmission of wild poliovirus should comply with the same AFP surveillance criteria as countries with importations until they are no longer assessed to be at high risk. In order to facilitate rapid detection of polio cases, countries should continue their efforts to ensure routine and rapid transportation of specimens from the field to their designated national laboratory and the regional reference laboratories.

Measles outbreaks in the WHO European Region and Member States' responses

Since July 2011, the World Health Organization Regional Office for Europe (WHO/Europe) has received measles and rubella surveillance data from 15 of 53 Member States (Albania, Andorra, Azerbaijan, Belarus, Estonia, Georgia, Israel, Russian Federation, Serbia, Slovakia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey, Turkmenistan and Ukraine). Of these Member States, 13 reported zero cases of measles in August. In August, the World Health Organization Regional Office for Europe did not receive surveillance data from the 27 Member States of the European Union who reported to the European Centre for Disease Prevention and Control (ECDC) through TESSy (The European Surveillance System).

According to case-based and aggregated routine surveillance reporting, and outbreak reports provided to the European Regional Office, as of 20 September 2011, covering the period 1 January to 30 July 2011, 40 of 53 Member States reported 26 074 confirmed measles cases. This represents nearly a three-fold increase in cases compared to the same period in 2007. The predominant genotype circulating in the European Region is D4, which has been endemic in some countries of the Region, such as the United Kingdom, since 2008.

The highest number of cases was reported from France with 14 025 for the first seven months of the year. In addition, there have been nine deaths reported (six in France and one each in Germany, Kyrgyzstan and Romania).

From the beginning of the year through July 2011, there have been 258 suspected rubella cases reported from 15 Member States; only 11 cases were laboratory confirmed.

In response to the measles outbreaks, Member States are strengthening their surveillance activities according to national and regional guidelines,

and some have revised their immunization programmes, including modifying their immunization calendars and offering free vaccine to older individuals. Additionally, social mobilization activities and advocacy for immunization among the general population and the health sector have been implemented in all countries.

On 13 October 2011, France launched a nationwide communication campaign to address the measles outbreak. The campaign targets: health care professionals to provide them with information about the outbreak and national measles vaccine recommendations; persons aged 15-30 years (the priority target age group) to encourage them to check their immunization status and, if they have not had two doses of a measles-containing vaccine, to get vaccinated; and mothers aged 40-60 years to recommend that they check their children's immunization cards and to sensitize them to the importance of two doses of vaccine for their children.

The WHO Regional Office for Europe hosted a one-day meeting on measles elimination in Istanbul on 13 October 2011 with more than 40 national immunization programme managers attending. The meeting focused on the current measles outbreaks in the European Region, highlighting the prevention and control measures implemented by Member States towards the measles elimination goal. Best practices were shared among countries, including Slovenia and Spain. Slovenia has reported 9 measles cases this year ranging in age from 5 to 49 years. The high reported (>95% for 1st and 2nd doses of measles-containing vaccines) measles coverage has ensured that there has been a limited chain of transmission from the first imported measles case.

In Spain, innovative efforts have been put into action to reach unimmunized individuals to stop the continued spread of virus. These include strengthening of vaccination strategies at a regional level to increase immunity in healthcare workers and other vulnerable groups, as well as implementing national communication strategies directed at healthcare workers.

The regional measles and rubella verification process for elimination was also reviewed and Turkey and Turkmenistan presented on their documentation efforts to date. WHO/Europe continues to work with Member States, providing recommendations, technical support, and analytic and programmatic feedback.

Measles and rubella supplementary immunization activity in Uzbekistan reaches over seven million children

Uzbekistan conducted a follow-up supplemental immunization activity (SIA) with one dose of measles-rubella (MR) vaccine targeting 7.55 million children between 1 and 14 years of age. The SIA was implemented to close the immunity gap in susceptible population accumulated during recent years of routine vaccine shortage and low routine coverage with a second dose of a measles-containing vaccine. The measles and rubella SIA contributed to strengthening the health system through enhanced partnerships within the country, improving the cold chain, strengthening injection safety and disease surveillance, and promoting the use of surveillance data for programme management.

The SIA was funded through the Measles Initiative and a donation of seven million doses of MR vaccine by the Serum Institute of India. Supplemental immunization activities are part of the regional strategic plan to eliminate measles and rubella by 2015; they provide an opportunity for individuals to receive a second dose of measles-containing vaccine. High quality SIAs can rapidly interrupt any transmission and reduce the proportion of susceptibles in a given population rapidly. In the context of high routine immunization coverage, they are a key strategy to eliminating indigenous measles transmission.

The SIA was conducted during 12-18 September 2011; administrative reported coverage was 99.5%. External observers deployed by WHO, as well as the Centers for Disease Control and Prevention of the United States of America (CDC) and UNICEF staff, reported a high level of preparedness by the health staff at all levels, proper vaccine handling, waste management and strong involvement of communities. A WHO-supported post-campaign coverage survey, conducted in five provinces of the country and the capital city Tashkent, confirmed the success of the SIA. The average national coverage estimated by lot quality assessment (LQA) methodology was 98.4%, which exceeds the target of 95%, even with a statistical margin of error.

Uzbekistan is also moving forward with other components of the strategy for measles elimination. In 2011, the Ministry of Health successfully secured

sufficient funding for procurement of a second dose of measles-containing vaccine for children aged six years; the Ministry aims at centralizing procurement

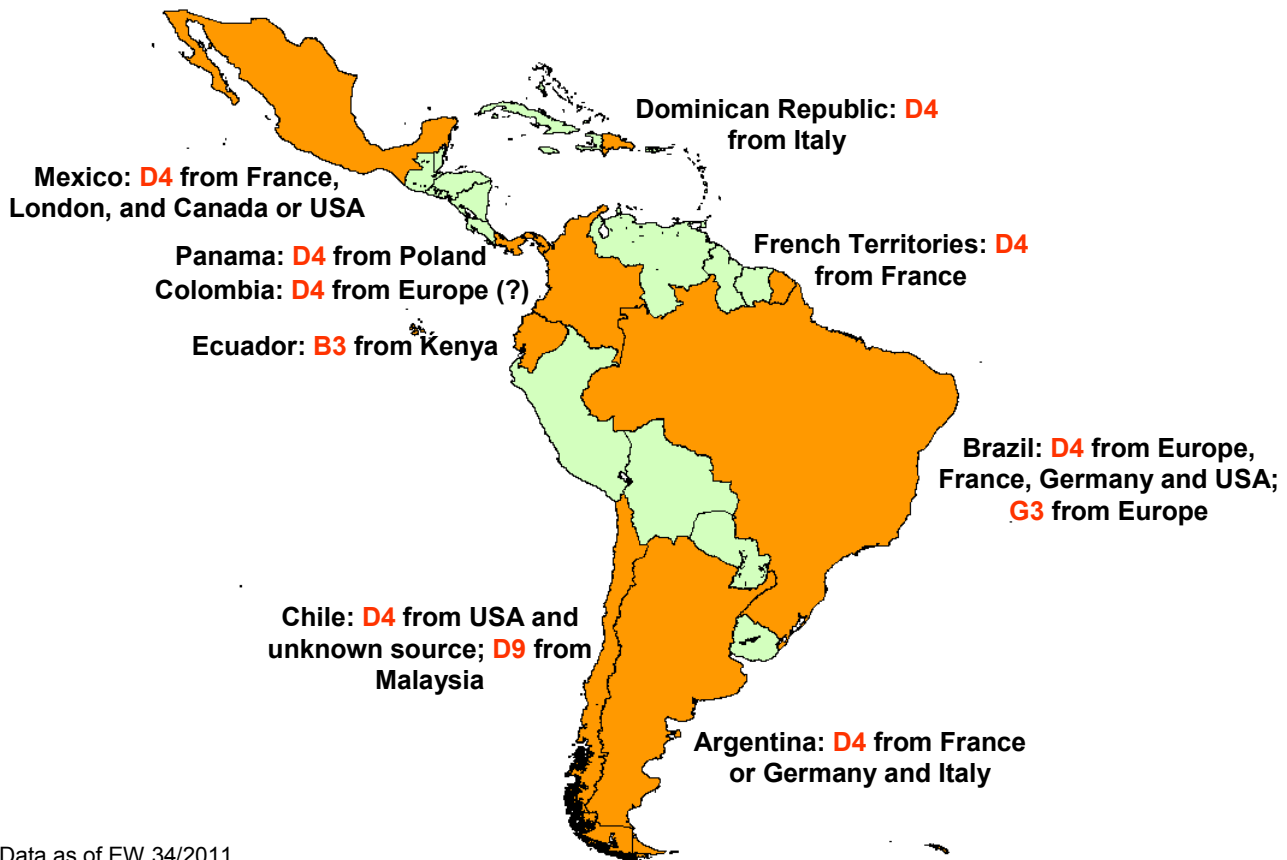
of all routine vaccines by mid-2012. Uzbekistan intends to begin the measles elimination verification process soon and to lead the way in reaching the regional elimination goal.

Measles in the World Health Organization Region of the Americas – the European connection

The Americas Region of the World Health Organization (AMR) is the only region to have achieved measles elimination. Since November 2002, the interruption of measles transmission has been sustained, with periodic importation of measles from other regions and limited clusters of cases among the unimmunized. However, in 2011 the number of measles cases is the highest it has been since the Region achieved elimination, reporting 993 cases (four-fold increase since 2010). Most of the cases (about 739 at August 2011) are reported from Canada, primarily from a large

measles outbreak in Quebec, which began in January after virus importation from France. According to existing epidemiological and laboratory data, Latin American countries have also experienced outbreaks due to D4 and G3 measles virus genotypes (see Figure 1) as a result of cases imported from the European Region (France, Italy, Germany, Poland, United Kingdom and Europe unspecified). Genotyping data has also confirmed exportation of measles viruses (D4) from Europe to Australia and Japan in 2011.

Figure 1: Measles genotypes in selected Latin American countries, 2011 (source: AMR)



Data as of EW 34/2011

Source: Country reports to PAHO/WHO and CDC Global Measles Laboratory.

Outbreak of wild polio virus 1 in China: additional cases reported

As of 19 October there are 18 confirmed polio cases; 12 in Hotan prefecture, 5 in Kashgar prefecture and 1 in Bazhou prefecture, all in the southern Xinjiang Uygur autonomous region, western China. Half of the cases are in very young children (under 3 years of age) and half in young adults (19-31 years old).

China has undertaken remarkable and swift efforts to date to control the outbreak. More than four million children were again vaccinated with oral poliovirus vaccine (OPV) from 8-12 October in Xinjiang Uyghur Autonomous Region. The campaign targeted children under age 15 in the five southern prefectures and the capital Urumqi, and children under age five in the northern prefectures.

Special strategies were used to proactively identify and vaccinate children in mobile, migrant and other high-risk groups. For example, 80% of posts in Urumqi were 'temporary' outside posts and vaccinators went house-to-house in areas with known higher concentrations of mobile and migrant people. Mobile teams were also used to reach very remote rural areas. Initial reported coverage is over 95%, which was confirmed by independent monitors reporting on the high quality of the vaccination.

WHO\Europe reminds all Member States of the European Region of the need to ensure enhanced polio surveillance for wild poliovirus importations and high coverage with polio vaccine. All travellers to and from countries or areas reporting wild poliovirus should be adequately vaccinated as per WHO's international travel and health recommendations [<http://www.who.int/ith/en/>].

Acute flaccid paralysis (AFP) surveillance in the European Region

At the 25th meeting of the European Regional Certification Commission on the Eradication of Poliomyelitis (RCC), held 23 - 25 August 2011, it was recommended that countries considered at high risk of transmission of wild poliovirus should comply with the same AFP surveillance criteria (non-polio AFP target rate of >2 per 100 000 population) as countries with importations until they are no longer assessed to be at high risk by the RCC.

From the data provided to WHO\Europe in January – September 2011, Kyrgyzstan is the only country in

this group meeting the AFP target rate criteria and having no "silent" territories at subnational level. Armenia, also reporting annualized non-polio AFP rate of > 2 per 100 000, has five regions with an under 15 years of age population of more than 158 000 persons (accounting for 25% of the national population) that have not identified an AFP case. Significant areas of Bosnia and Herzegovina (35%), Georgia (37%) Greece (14%) and Turkey (21%) also remained silent through the first nine months of 2011. In these Member States, there is a concern that an imported virus would not be detected, unless AFP surveillance is improved.

Table 1: AFP Surveillance system performance, (Jan-Sep, 2011)

Country	Population under 15 years	Nr AFP cases under 15 years	Annualized non polio AFP rate under 15 years	% AFP with 2 faecal specimens within 14 days, >1 day apart	Modified AFP surveillance index	Number of silent territories	Population of silent territories	% population of silent territories
Armenia	627,730	17	2.07	88	0.88	5 / 11	158,147	25%
Azerbaijan	2,149,288	29	1.27	97	1.00	1 / 9	97,090	5%
Bosnia and Herzegovina	559,388	5	0.23	40	0.14	2 / 3	196,741	35%
Montenegro	119,197	1	1.09	0	1.00	0	-	0%
Georgia	696,357	9	1.31	100	1.00	6 / 12	259,350	37%
Greece	1,589,964	19	1.19	79	0.97	4 / 13	221,230	14%
Kyrgyzstan	1,616,720	38	2.49	100	1.00	0 / 8	-	0%
Kazakhstan	3,816,365	49	0.78	98	0.77	1 / 16	107,412	3%
Russian Federation	21,216,854	290	1.19	92	0.95	13 / 89	599,699	3%
Tajikistan	2,582,795	38	1.76	95	0.95	1 / 6	52,813	2%
Turkmenistan	1,503,084	24	1.64	100	1.00	0 / 6	-	0%
Turkey	19,895,020	142	0.71	82	0.64	34 / 84	4,123,235	21%
Ukraine	6,327,164	91	1.38	98	1.00	3 / 27	343,020	5%
Uzbekistan	7,886,091	157	1.86	96	0.96	0 / 14	-	0%
Total	144,548,733						13,265,728	9%

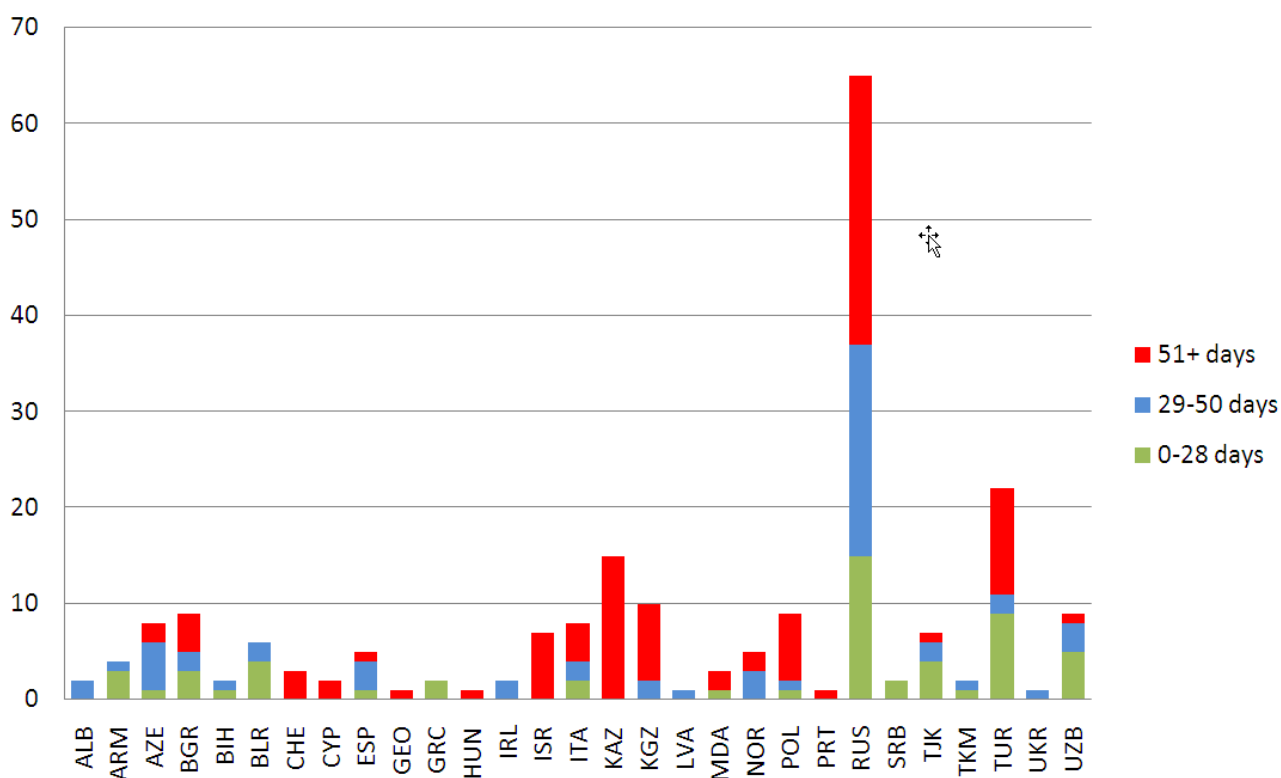
* data as of 5 October 2011; Data Source: AFP case-based data reported to CISID

In order to facilitate rapid detection of polio cases, countries should continue their efforts to ensure routine and rapid transportation of specimens from the field to their designated national laboratory and the regional reference laboratories.

As of 20 October 2011, there are 238 AFP cases with specimens collected for laboratory investigation pending results (available at the Laboratory Data Management System - LDMS). Of these cases, only 66 cases (28%) have ≤ 28 days since onset of paralysis; 63 cases (26%) have between 29 and 50 days;

and no laboratory results are available for 109 cases (46%) that have more than 50 days since onset of paralysis. Delays could be caused by different reasons (e.g. untimely transportation of specimens to a laboratory or a failure to report results). Specimens pending investigation pose a risk of late detection or missing of polio cases, which can lead to increased spread. Member States of the European Region remain at continuing risk of importations of wild poliovirus and the emergence of a circulating vaccine-derived polio virus until global eradication is certified.

Figure 2: Number of days lab result is pending since onset of paralysis by country, Jan-Sep, 2011



*data from LDMS as of 20 October 2011

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

Country	Total Population ¹	Incidence Rate per 1 million population (Jan-Aug)	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%	63%	Aug	-	0.00	-
Andorra	67 722	0.0	0	0	0	0	0	0	100%	50%	Aug	-	0.00	-
Armenia	3 099 249	0.0	0	0	0	0	16	0	75%	100%	Jul	100.0%	0.52	100.0%
Austria	8 407 841	8.7	93	19	5	69	0	20	75%	75%	Jul	31.8%	NA	NA
Azerbaijan	9 035 054	0.0	0	0	0	0	8	0	100%	75%	Aug	100.0%	0.09	100.0%
Belarus*	9 541 951	0.3	3	3	0	0	0	0	100%	50%	Aug	100.0%	0.00	0.0%
Belgium	10 741 473	45.4	516	296	67	153	22	28	50%	50%	Jul	111.0%	NA	NA
Bosnia and Herzegovina*	3 752 989	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA
Bulgaria*	7 450 501	19.6	146	124	0	22	0	0	88%	50%	Jul	84.9%	NA	NA
Croatia	4 402 729	1.1	7	5	2	0	0	2	75%	50%	Jul	100.0%	NA	NA
Cyprus	888 534	0.0	0	0	0	0	0	0	88%	88%	Jul	-	0.00	-
Czech Republic	10 442 510	2.6	31	25	0	6	0	4	88%	88%	Jul	80.6%	NA	NA
Denmark	5 491 148	14.0	78	71	7	0	0	1	88%	88%	Jul	100.0%	NA	NA
Estonia	1 338 887	1.5	7	7	0	0	0	5	100%	100%	Aug	100.0%	NA	NA
Finland	5 364 898	3.0	19	19	0	0	0	3	88%	88%	Jul	100.0%	NA	NA
France	62 916 416	222.8	14025	4532	772	8721	146	9	63%	38%	Jun	40.9%	NA	NA
Georgia*	4 184 100	7.6	32	7	8	17	0	0	100%	75%	Aug	29.2%	NA	NA
Germany	81 935 976	16.2	1343	728	509	106	1	16	50%	50%	Jun	87.2%	NA	NA
Greece	11 203 121	2.9	37	32	1	4	0	5	88%	75%	Jul	91.7%	NA	NA
Hungary	9 953 518	0.0	2	2	0	0	0	2	88%	88%	Jul	100.0%	0.00	100.0%
Iceland	335 063	0.0	0	0	0	0	0	0	88%	75%	Jul	-	0.00	-
Ireland	4 656 634	17.4	88	41	13	34	3	7	75%	75%	Jun	67.9%	NA	NA
Israel*	7 397 700	1.2	9	5	0	4	0	0	100%	100%	Aug	55.6%	NA	NA
Italy	60 280 504	22.0	1330	481	53	796	5	2	38%	25%	Jul	38.5%	NA	NA
Kazakhstan*	15 868 221	1.9	30	24	0	6	0	0	38%	13%	Mar	80.0%	NA	NA
Kyrgyzstan	5 617 475	39.3	221	221	0	0	366	0	100%	13%	Aug	100.0%	NA	NA
Latvia	2 231 358	0.4	1	1	0	0	0	0	38%	25%	Jun	100.0%	0.00	100.0%
Lithuania	3 228 015	1.2	7	7	0	0	0	3	88%	75%	Jul	100.0%	NA	NA
Luxembourg	497 368	6.0	5	5	0	0	0	2	75%	75%	Jul	100.0%	NA	NA
Malta	411 349	4.9	2	2	0	0	0	0	88%	88%	Jul	100.0%	NA	NA
Monaco	37 785	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA
Montenegro*	626 067	8.0	5	5	0	0	0	0	63%	50%	Jun	100.0%	NA	NA
Netherlands	16 710 858	1.9	47	30	16	1	0	15	38%	25%	Jun	96.8%	NA	NA
Norway	4 895 307	6.3	37	37	0	0	2	6	50%	50%	Jul	100.0%	NA	NA
Poland	37 995 500	0.4	19	13	0	6	15	2	75%	50%	Jun	76.5%	0.04	100.0%
Portugal	10 752 590	0.0	0	0	0	0	2	0	88%	50%	Jul	100.0%	0.02	100.0%
Republic of Moldova	3 549 163	0.0	0	0	0	0	0	0	38%	13%	Mar	-	0.00	-
Romania	21 107 516	102.0	2156	779	1316	61	133	4	25%	0%	Jun	94.9%	NA	NA
Russian Federation	139 872 928	1.1	166	162	3	1	51	15	100%	100%	Aug	100.9%	NA	NA
San Marino	29 332	-	-	-	-	-	-	-	-	-	No Report	-	NA	NA
Serbia*	9 855 875	35.1	346	71	13	262	0	0	100%	63%	Aug	21.3%	NA	NA
Slovakia	5 417 394	0.0	2	2	0	0	0	2	100%	100%	Aug	100.0%	0.00	100.0%
Slovenia	2 029 418	2.5	9	9	0	0	0	4	100%	88%	Aug	100.0%	NA	NA
Spain	45 724 660	58.3	2745	2122	345	278	2	81	88%	88%	Jul	90.3%	NA	NA
Sweden	9 335 463	0.6	23	23	0	0	0	17	88%	88%	Jul	100.0%	0.00	100.0%
Switzerland	7 622 415	77.7	640	399	87	154	92	48	100%	88%	Aug	75.8%	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%	88%	Aug	10.5%	NA	NA
Turkey	76 582 128	1.2	105	105	0	0	0	11	100%	88%	Aug	100.0%	NA	NA
Turkmenistan	5 243 476	0.0	0	0	0	0	0	0	100%	13%	Aug	-	0.00	-
Ukraine*	45 167 108	0.3	12	12	0	0	0	0	88%	88%	Aug	100.0%	0.00	0.0%
United Kingdom	62 230 620	9.9	687	686	1	0	3	74	75%	75%	Jun	100.1%	NA	NA
Uzbekistan*	28 110 756	11.2	316	172	0	144	0	0	50%	13%	Apr	54.4%	NA	NA
Total/Averages	896 071 408	28.7	26074	11335	3459	11280	867	388	73.3%	57.8%		56.6%	0.10	46.3%

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—August 2011 (data as of 1 Oct 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
Albania	3 184 761	1.6	5	1	0	4	0	0	100%	75%	Aug	0.0%	-	-
Andorra	67 722	0.0	0	0	0	0	0	0	100%	38%	Aug	-	0.00	-
Armenia	3 099 249	0.0	0	0	0	0	7	0	100%	100%	Mar	93.8%	0.23	228.6%
Austria	8 407 841	0.1	2	0	0	2	0	1	75%	25%	Jul	50.0%	0.00	100.0%
Azerbaijan	9 035 054	0.0	0	0	0	0	6	0	100%	75%	Aug	100.0%	0.07	100.0%
Belarus	9 541 951	0.7	7	7	0	0	0	0	100%	50%	Aug	0.0%	0.00	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	75%	25%	Jun	0.0%	-	-
Croatia	4 402 729	0.0	0	0	0	0	0	0	50%	25%	Jul	-	0.00	-
Cyprus	888 534	0.0	0	0	0	0	0	0	88%	63%	Jul	-	0.00	-
Czech Republic	10 442 510	0.0	0	0	0	0	0	0	75%	38%	Jul	-	0.00	-
Denmark	5 491 148	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Estonia	1 338 887	0.0	0	0	0	0	0	0	100%	75%	Aug	-	0.00	-
Finland	5 364 898	0.0	1	0	0	1	0	1	88%	50%	Jul	100.0%	0.00	100.0%
France	62 916 416	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Georgia	4 184 100	11.5	48	2	0	46	0	0	100%	75%	Aug	0.0%	-	-
Germany	81 935 976	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Greece	11 203 121	0.0	0	0	0	0	0	0	63%	25%	Jul	-	0.00	-
Hungary	9 953 518	0.0	0	0	0	0	0	0	88%	38%	Jul	-	0.00	-
Iceland	335 063	0.0	0	0	0	0	0	0	88%	50%	Jul	-	0.00	-
Ireland	4 656 634	0.0	0	0	0	0	0	0	75%	38%	Jun	-	0.00	-
Israel	7 397 700	0.0	0	0	0	0	0	0	100%	50%	Aug	-	0.00	-
Italy	60 280 504	0.0	0	0	0	0	0	0	13%	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	50%	13%	Jun	-	0.00	-
Lithuania	3 228 015	0.0	0	0	0	0	0	0	75%	38%	Jul	-	0.00	-
Luxembourg	497 368	0.0	0	0	0	0	0	0	88%	38%	Jul	-	0.00	-
Malta	411 349	0.0	0	0	0	0	0	0	88%	63%	Jul	-	0.00	-
Monaco	37 785	-	-	-	-	-	-	-	-	-	No Report	-	-	-
Montenegro	626 067	0.0	0	0	0	0	0	0	50%	38%	Apr	-	0.00	-
Netherlands	16 710 858	0.0	0	0	0	0	0	0	38%	0%	Jun	-	0.00	-
Norway	4 895 307	0.0	0	0	0	0	0	0	63%	25%	Jul	-	0.00	-
Poland	37 995 500	0.0	0	0	0	0	0	0	13%	0%	Apr	-	0.00	-
Portugal	10 752 590	0.0	0	0	0	0	2	0	75%	25%	Jul	0.0%	0.02	0.0%
Republic of Moldova	3 549 163	0.0	0	0	0	0	0	0	38%	13%	Mar	-	0.00	-
Romania	21 107 516	0.0	0	0	0	0	90	0	38%	0%	Jul	98.9%	0.43	100.0%
Russian Federation	139 872 928	-	-	-	-	-	-	-	-	-	No Report	100.0%	-	-
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%	63%	Aug	-	0.00	-
Slovenia	2 029 418	0.0	0	0	0	0	0	0	38%	0%	Jun	-	0.00	-
Spain	45 724 660	0.0	0	0	0	0	1	0	75%	38%	Jul	100.0%	0.00	100.0%
Sweden	9 335 463	0.0	0	0	0	0	0	0	88%	50%	Jul	-	0.00	-
Switzerland	7 622 415	0.0	0	0	0	0	22	0	88%	25%	Jul	90.9%	0.29	9.1%
Tajikistan	7 203 979	-	-	-	-	-	-	-	-	-	No Report	-	-	-
The former Yugoslav Republic of Macedonia	2 044 005	2.0	4	0	0	4	0	0	100%	75%	Aug	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	75%	38%	Jul	-	0.00	-
Uzbekistan	28 110 756	0.7	20	0	0	20	0	0	13%	0%	Mar	0.0%	0.00	0.0%
Total/Averages	896 071 408	0.1	120	11	0	109	128	2	51.2%	25.9%		51.9%	0.00	47.6%

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—August 2011 (data as of 1 Oct 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	24	0 (0.0)	0	24	5	1 (20.0)	0	4	100.0%	87.5%	Aug
Andorra											No Lab
Armenia	28	0 (0.0)	0	28	28	0 (0.0)	2	26	100.0%	100.0%	Aug
Austria	932	62 (7.0)	0	870	3825	3 (0.0)	0	3822	100.0%	100.0%	Aug
Azerbaijan	13	0 (0.0)	0	13	13	0 (0.0)	0	13	87.5%	37.5%	Jul
Belarus	369	56 (15.0)	11	282	273	23 (8.0)	3	247	100.0%	100.0%	Aug
Belgium	618	301 (49.0)	12	296	47	5 (11.0)	2	33	100.0%	100.0%	Aug
Bosnia and Herzegovina									#DIV/0!	#DIV/0!	No Report
Bulgaria	67	34 (51.0)	0	33	42	2 (5.0)	0	40	100.0%	75.0%	Aug
Croatia	9	7 (78.0)	0	2	9	0 (0.0)	0	9	100.0%	100.0%	Aug
Cyprus	0	0	0	0	0	0	0	0	100.0%	100.0%	Aug
Czech Republic	31	17 (55.0)	6	8	50	7 (14.0)	1	42	100.0%	87.5%	Aug
Denmark	1113	188 (17.0)	26	899	452	17 (4.0)	68	367	100.0%	37.5%	Aug
Estonia	137	7 (5.0)	2	128	407	3 (1.0)	0	404	100.0%	100.0%	Aug
Finland	1138	124 (11.0)	0	1013	397	7 (2.0)	0	390	100.0%	75.0%	Aug
France	2848	1958 (69.0)	12	878	0	0	0	0	100.0%	62.5%	Aug
Georgia	33	5 (15.0)	0	28	35	4 (11.0)	4	27	100.0%	50.0%	Aug
Germany	1008	649 (64.0)	4	355	69	4 (6.0)	3	62	100.0%	100.0%	Aug
Greece	115	25 (22.0)	0	90	193	45 (23.0)	0	148	100.0%	37.5%	Aug
Hungary	44	0 (0.0)	0	44	271	6 (2.0)	1	264	100.0%	100.0%	Aug
Iceland	38	0 (0.0)	0	38	61	0 (0.0)	0	61	100.0%	62.5%	Aug
Ireland	327	99 (30.0)	17	211	1149	3 (0.0)	13	1133	100.0%	75.0%	Aug
Israel	83	17 (20.0)	0	66	479	47 (10.0)	0	432	100.0%	87.5%	Aug
Italy									#DIV/0!	#DIV/0!	No Report
Kazakhstan	83	52 (63.0)	3	24	24	0 (0.0)	2	21	100.0%	75.0%	Aug
Kyrgyzstan	835	242 (29.0)	8	583	746	6 (1.0)	16	722	100.0%	75.0%	Aug
Latvia	182	2 (1.0)	1	179	182	3 (2.0)	2	177	100.0%	75.0%	Aug
Lithuania	10	6 (60.0)	1	3	9	0 (0.0)	0	9	100.0%	100.0%	Aug
Luxembourg	97	10 (10.0)	0	87	34	1 (3.0)	1	32	100.0%	100.0%	Aug
Malta	5	4 (80.0)	0	1	985	6 (1.0)	0	979	100.0%	100.0%	Aug
Monaco											No Lab
Montenegro											No Lab
Netherlands	116	49 (42.0)	0	67	115	3 (3.0)	0	112	100.0%	62.5%	Aug
Norway	217	78 (36.0)	1	138	31	1 (3.0)	1	29	100.0%	100.0%	Aug
Poland	55	30 (55.0)	2	23	40	5 (13.0)	1	34	100.0%	100.0%	Aug
Portugal	13	3 (23.0)	0	8	0	0	0	0	100.0%	100.0%	Aug
Republic of Moldova	11	0 (0.0)	0	11	11	0 (0.0)	0	11	100.0%	87.5%	Aug
Romania	1526	1097 (72.0)	22	407	463	47 (10.0)	12	404	100.0%	100.0%	Aug
Russian Federation	2804	368 (13.0)	7	2429	2507	246 (10.0)	7	2254	100.0%	87.5%	Aug
San Marino											No Lab
Serbia	212	118 (56.0)	3	91	293	1 (0.0)	0	292	100.0%	37.5%	Aug
Slovakia	10	2 (20.0)	0	8	12	6 (50.0)	0	6	100.0%	87.5%	Aug
Slovenia	136	41 (30.0)	6	89	14	0 (0.0)	0	14	100.0%	100.0%	Aug
Spain	3348	1718 (51.0)	60	500	27	7 (26.0)	0	12	100.0%	87.5%	Aug
Sweden									#DIV/0!	#DIV/0!	No Report
Switzerland	484	435 (90.0)	20	29	12	12 (100.0)	0	0	100.0%	100.0%	Aug
Tajikistan	16	1 (6.0)	0	15	16	0 (0.0)	0	16	75.0%	25.0%	Jul
The former Yugoslav Republic of Macedonia	173	52 (30.0)	18	103	105	0 (0.0)	2	103	100.0%	25.0%	Aug
Turkey	5911	140 (2.0)	86	5685	5274	217 (4.0)	277	4780	100.0%	75.0%	Aug
Turkmenistan	37	0 (0.0)	2	35	35	0 (0.0)	0	35	100.0%	62.5%	Aug
Ukraine	527	69 (13.0)	3	455	1014	608 (60.0)	10	396	100.0%	100.0%	Aug
United Kingdom	3296	867 (26.0)	0	2429	612	7 (1.0)	0	605	100.0%	62.5%	Aug
Uzbekistan	231	168 (73.0)	13	50	69	1 (1.0)	3	65	100.0%	50.0%	Aug
Total / Average	29310	9101 (31%)	346	18755	20435	1354 (7%)	431	18632	99.2%	79.3%	

*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 (1-39 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	3	3	0	0	2	1	0	0	0.18	100.0	0.2	82.0	35.0	37
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	90.0	17.0	36
Armenia	13	13	1	0	0	13	0	0	2.08	61.5	0.62	17	17	2	0	7	10	0	0	2.07	88.2	0.9	97.0	69.0	39
Austria	3	3	0	0	0	3	0	0	0.24	0.0	0.00	1	1	0	0	0	1	0	0	0.11	0.0	0.1	95.0	30.0	38
Azerbaijan	29	29	0	0	0	29	0	0	1.36	100.0	1.00	29	29	0	0	8	21	0	0	1.27	96.6	1.0	87.0	84.0	39
Belarus	41	41	2	0	0	41	0	0	2.92	92.7	0.98	33	33	2	0	15	18	0	0	1.67	78.8	0.9	47.0	48.0	37
Belgium	3	3	0	0	0	3	0	0	0.17	0.0	0.06	1	1	0	0	0	1	0	0	0.07	0.0	0.0	62.0	38.0	32
Bosnia and Herzegovina	6	6	0	0	0	6	0	0	1.05	66.7	0.83	5	5	1	0	4	1	0	0	0.23	40.0	0.1	87.0	56.0	38
Bulgaria	13	13	2	0	0	13	0	0	1.28	92.3	0.92	10	10	0	0	8	2	0	0	0.26	90.0	0.3	35.0	33.0	39
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	20.0	36
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	90.0	92.0	37
Czech Republic	2	2	0	0	0	2	0	0	0.14	100.0	0.14	4	4	0	0	0	4	0	0	0.35	100.0	0.4	75.0	71.0	38
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	87.0	89.0	39
Georgia	7	7	0	0	0	7	0	0	0.99	100.0	0.99	9	9	1	0	2	7	0	0	1.31	100.0	1.0	90.0	92.0	38
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	19	19	2	0	19	0	0	0	0.00	78.9	0.0	60.0	56.0	39
Hungary	13	13	0	0	0	13	0	0	0.88	38.5	0.54	6	6	0	0	4	2	0	0	0.18	16.7	0.1	90.0	58.0	37
Ireland	2	2	0	0	0	2	0	0	0.21	50.0	0.10	6	6	0	0	3	3	0	0	0.40	16.7	0.2	75.0	23.0	30
Israel	11	11	0	0	0	11	0	0	0.55	0.0	0.15	10	9	0	0	0	10	0	0	0.64	11.1	0.1	75.0	76.0	39
Italy	53	53	0	0	0	53	0	0	0.62	58.5	0.39	44	44	1	0	9	35	0	0	0.53	56.8	0.3	7.0	7.0	35
Kazakhstan*	113	112	4	0	0	112	1	0	2.98	99.1	0.99	49	49	0	0	26	23	0	0	0.78	98.0	0.8	20.0	17.0	25
Kyrgyzstan	68	64	0	0	0	68	0	0	4.22	96.9	1.00	41	38	0	0	10	31	0	0	2.49	100.0	1.0	15.0	15.0	38
Latvia	5	5	0	0	0	5	0	0	1.61	100.0	1.00	1	1	0	0	1	0	0	0	0.00	100.0	0.0	90.0	82.0	39
Lithuania	10	10	0	0	0	10	0	0	2.10	100.0	1.00	10	10	0	0	0	10	0	0	2.80	100.0	1.0	95.0	82.0	39
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	87.0	12.0	35
Montenegro	1	1	0	0	0	1	0	0	0.83	100.0	0.83	1	1	0	0	0	1	0	0	1.09	0.0	1.0	85.0	87.0	39
Norway	9	9	0	0	0	9	0	0	0.99	55.6	0.77	6	6	0	0	4	2	0	0	0.29	16.7	0.2	77.0	23.0	34
Poland	47	47	0	0	0	46	0	1	0.82	72.3	0.68	28	28	2	0	10	18	0	0	0.42	78.6	0.4	95.0	76.0	38
Portugal	8	8	0	0	0	8	0	0	0.49	50.0	0.31	4	4	0	0	1	3	0	0	0.24	75.0	0.2	65.0	2.0	26
Republic of Moldova	15	15	3	0	0	15	0	0	2.52	73.3	0.87	7	7	0	0	4	3	0	0	0.66	100.0	0.7	87.0	89.0	38
Romania	16	16	1	0	0	16	0	0	0.50	100.0	0.50	15	15	0	0	2	13	0	0	0.53	100.0	0.5	87.0	84.0	39
Russian Federation*	397	390	68	0	0	378	14	5	1.80	94.9	0.95	287	286	23	0	93	194	0	0	1.19	92.3	1.1	77.0	79.0	39
Serbia	20	20	0	0	0	20	0	0	1.15	90.0	0.95	6	6	1	0	3	3	0	0	0.23	83.3	0.2	82.0	82.0	38
Slovakia	1	1	0	0	0	1	0	0	0.12	0.0	0.00	2	2	0	0	0	2	0	0	0.32	100.0	0.3	72.0	64.0	38
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	95.0	74.0	39
Spain	31	31	2	0	0	31	0	0	0.46	45.2	0.34	18	18	0	0	4	14	0	0	0.26	22.2	0.1	95.0	66.0	38
Switzerland	9	9	0	0	0	9	0	0	0.78	33.3	0.43	4	3	0	0	0	4	0	0	0.45	66.7	0.3	80.0	43.0	37
Tajikistan*	712	585	0	58	0	193	460	1	7.50	86.7	0.88	41	38	0	0	9	32	0	0	1.61	94.7	1.5	70.0	71.0	38
The former Yugoslav Republic of Macedonia	7	7	0	0	0	7	0	0	1.95	100.0	1.00	3	3	1	0	1	2	0	0	0.74	100.0	0.7	90.0	87.0	38
Turkey	221	215	6	0	0	240	0	2	1.10	74.0	0.79	142	142	2	0	33	109	0	0	0.71	82.4	0.6	87.0	89.0	39
Turkmenistan*	50	50	0	0	0	46	3	1	3.06	100.0	1.00	24	24	0	0	5	19	0	0	1.64	100.0	1.6	50.0	51.0	38
Ukraine	130	125	22	0	0	129	0	1	2.04	96.0	0.98	91	91	19	0	24	67	0	0	1.38	97.8	1.0	82.0	84.0	37
Uzbekistan	146	132	4	0	0	146	0	0	1.84	97.7	0.98	160	157	3	0	47	113	0	0	1.86	96.2	1.0	72.0	69.0	39
Average/Total	2263	2098	116	58	0	1737	478	11	1.66	86.00	0.89	1139	1127	60	0	360	779	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 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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