



EUROPE

## World Health Organization Regional Office for Europe

### Surveillance of measles and rubella

Data as of 15 March 2006

WHO Regional Office for Europe  
Vaccine-preventable Diseases and Immunization programme, Reducing Disease Burden Division  
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## EVENTS

The first meeting of the National Measles/Rubella Laboratories of the Countries of Central and Eastern Europe, including the Baltic and Balkan countries, Turkey and Cyprus was held in Luxembourg between 17 and 19 January 2006. This meeting was jointly sponsored by the Institute of Immunology at the National Public Health Laboratory of Luxembourg, one of the three European Regional Reference Laboratories, by the Ministry of Public Health of Luxembourg and by the Regional Office. The meeting was officially opened by Mr. Mars di Bartolomeo, Minister of Public Health of the Grand-Duchy of Luxembourg (picture below).



The meeting noted that almost all National Measles/Rubella Laboratories attending have implemented the WHO European Regional Program for Measles and Rubella elimination, including establishing high quality laboratory-based surveillance. The National Laboratories in the European Region have made a crucial contribution to the achievements of the WHO program. Most of the laboratories have been integrated into the national measles/rubella program and conduct laboratory-based surveillance, allowing the countries report complete and reliable data to WHO/EURO.



The National laboratories have demonstrated their high level of expertise and quality by passing the annual round of proficiency testing organized by WHO as well as the accreditation review by correspondence.

At the same time, the participants of the meeting recognized problems in terms of the Regional Measles/Rubella Laboratory Network activities. It was recognized that National Health authorities need to ensure that full support is provided to their Measles/Rubella Laboratories, including financial, logistical, regulatory, and staffing support.

WHO will ensure continued support to the European Regional Measles/Rubella Laboratory Network through holding regular meetings, providing guidance on lab testing strategies, and offering regular training opportunities.

In accordance with the WHO European Regional elimination goals, Member States with low measles and/or rubella incidence ( $<$  or  $=$  1 case per 100 000 population) should move to case-based reporting, and ensure all suspected cases are laboratory confirmed.



Data source: Monthly reporting of the European Measles Rubella Laboratory Network coordinated by WHO Regional Office for Europe  
Note: The data displayed here only reflects the information that was reported to WHO Regional Office for Europe.

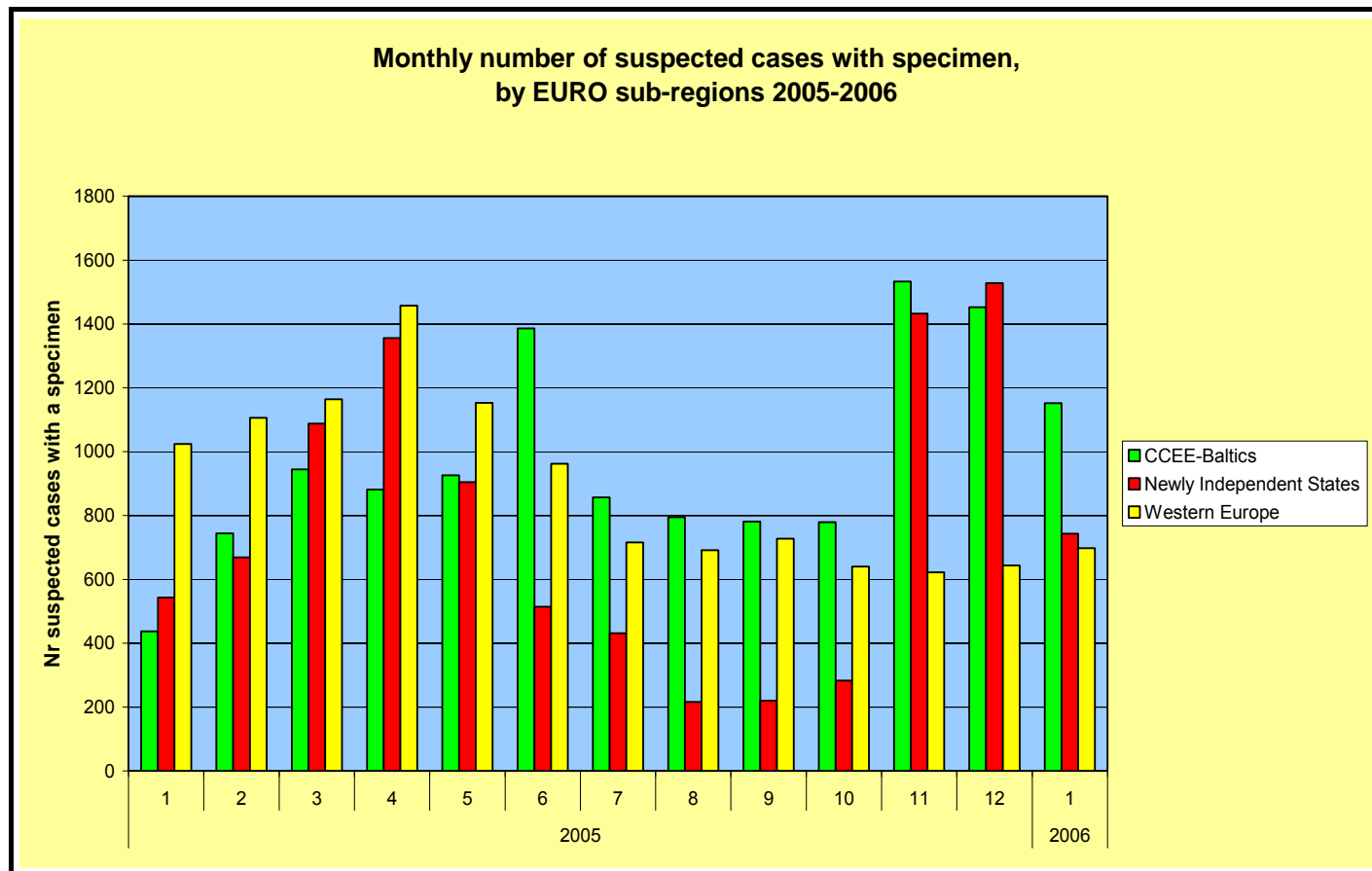
## Recent measles and rubella outbreaks in the European Region

Country	Disease	Area	Time period	Comments
Andorra	rubella	—	February 2006 to present	10 cases
Denmark/ Sweden	measles	Copenhagen/ Helsingborg	January-February 2006	6 cases, those examined are identical B3 genotype
Germany	measles	Stuttgart	January to present	58 cases to date, B3 genotype
Germany	measles	North Rhine Westphalia	January to present	149 cases to date, genotype data pending
Greece	measles	15/52 districts	September 2005- February 2006	<u>Report in Eurosurveillance</u> <a href="http://www.eurosurveillance.org/ew/2006/060223.asp#2">http://www.eurosurveillance.org/ew/2006/060223.asp#2</a> ; genotype pending
Romania	measles	National	Late 2004 to present	Outbreak involving mostly preschool children; D4 genotype; cases linked to this outbreak have been reported in Germany, Portugal and the United States of America
Russian Federation	measles	Moscow	February 2006 to present	Preliminary report identified two university/technical schools
Spain	rubella	Barcelona	October-December 2005	<u>Report in Eurosurveillance</u> <a href="http://www.eurosurveillance.org/ew/2006/060223.asp#3">http://www.eurosurveillance.org/ew/2006/060223.asp#3</a>
Spain	measles	La Rioja	December 2005- ?February 2006	17 cases, D6 genotype
Ukraine	measles	National	February 2005 to present	<u>Preliminary report in Eurosurveillance</u> <a href="http://www.eurosurveillance.org/ew/2006/060309.asp#1">http://www.eurosurveillance.org/ew/2006/060309.asp#1</a> ; D6 genotype; cases linked to this outbreak have been detected in Belarus, Russian Federation, Spain and the United States of America

We encourage national authorities to follow up on potential measles or rubella outbreak and notify WHO Regional Office so that standard surveillance practices are observed especially with regards to laboratory confirmation. As the European Region aims at measles elimination by 2010, it is important for countries to map various genotypes in circulation, facilitating subsequent tracking of cases across Europe. The standard outbreak reporting form can be found at <http://data.euro.who.int/cisid/>.

# MEASLES LABORATORY DATA:

## Laboratory surveillance of measles and rubella in the European region



## Regional and sub regional laboratory indicators for measles and rubella in 2006 Table 1

Area Groups	Year	% subnational laboratories reporting*	Nr of suspected cases with a specimen	Nr of specimens received	% Serum specimen
Measles CCEE-Baltics	2006	80.0%	1776	1788	99.4%
Newly Independent States	2006	100.0%	973	1077	93.7%
Western Europe	2006	8.0%	1258	248	80.6%
WHO European Region	2006	18.4%	4007	3113	95.9%

\*Number of laboratories reporting divided by number of laboratories under surveillance in a given country as an indicator of the geographical coverage of reporting inside the country

# Regional and sub regional laboratory indicators for measles and rubella in 2006

## Table 2

		Measles															
Area Groups	Year	% specimen with 4 to 7 days between onset and collection	% specimen with <3 days between collection and reception at the lab	% specimen with 7 to 14 days between reception at the lab and results	Nr to be tested	IgM				RT-PCR			Isolation			Sequencing	
						% adequate specimens	% Pos	% inconclusive	% Pending	Nr to be tested	% Pos	% Pending	Nr to be tested	% Pos	% Pending	Nr to be tested	% Pending
Measles CCEE-Baltics	2006	22.5%	15.2%	35.7%	1567	100.0%	66.8%	3.8%	0.1%	10	80.0%	0.0%	3	33.3%	0.0%	0	
Newly Independent States	2006	48.3%	67.1%	20.0%	866	100.0%	63.0%	0.6%	0.0%	68	27.9%	69.1%	68	7.4%	82.4%	0	
Western Europe	2006	57.7%	67.5%	3.5%	179	100.0%	10.6%	0.0%	0.0%	51	52.9%	3.9%	16	31.3%	0.0%	12	0.0%
WHO European Region	2006	33.6%	36.2%	28.4%	2612	100.0%	61.7%	2.5%	0.1%	129	41.9%	38.0%	87	12.6%	64.4%	12	0.0%

## Table 3

		Rubella															
Area Groups	Year	% specimen with 4 to 7 days between onset and collection	% specimen with <3 days between collection and reception at the lab	% specimen with 7 to 14 days between reception at the lab and results	Nr to be tested	IgM				RT-PCR			Isolation			Sequencing	
						% adequate specimens	% Pos	% inconclusive	% Pending	Nr to be tested	% Pos	% Pending	Nr to be tested	% Pos	% Pending	Nr to be tested	% Pending
Rubella CCEE-Baltics	2006	21.6%	64.2%	10.9%	331	100.0%	4.5%	0.9%	0.3%	0			0			0	
Newly Independent States	2006	58.9%	68.7%	24.3%	477	100.0%	31.9%	1.9%	0.4%	0			0			0	
Western Europe	2006	92.0%	88.6%	0.9%	1046	100.0%	1.7%	0.0%	0.0%	43	0.0%	4.7%	0			0	
WHO European Region	2006	77.0%	80.4%	8.7%	1854	100.0%	10.0%	0.6%	0.2%	43	0.0%	4.7%	0			0	

- Blank cells reflect the fact that the field was not filled in by the laboratories

Data source: Monthly reporting of the European Measles Rubella Laboratory Network coordinated by WHO Regional Office for Europe  
 Note: The data displayed here only reflects the information that was reported to WHO Regional Office for Europe.

## National laboratory indicators for measles and rubella in 2006

### Table 4

Country	Year	% subnational laboratories reporting*	Nr of suspected cases with a specimen	Nr of specimens received	% Serum specimen
Albania	2006	100.0%	1	1	100.0%
Armenia	2006	100.0%	21	21	100.0%
Austria	2006	100.0%	1045	1045	100.0%
Belgium	2006	0.2%	1	1	100.0%
Bulgaria	2006	100.0%	19	19	100.0%
Cyprus	2006	80.0%	0	0	
Czech Republic	2006	21.4%	3	4	100.0%
Estonia	2006	100.0%	91	91	100.0%
Finland	2006	100.0%	59	60	100.0%
Georgia	2006	100.0%	1	2	100.0%
Hungary	2006	100.0%	7	8	87.5%
Israel	2006	100.0%	73	80	90.0%
Kazakhstan	2006	100.0%	28	28	100.0%
Kyrgyzstan	2006	100.0%	34	34	100.0%
Latvia	2006	100.0%	9	9	100.0%
Lithuania	2006	100.0%	8	8	100.0%
Luxembourg	2006	100.0%	28	28	100.0%
Norway	2006	16.7%	12	15	100.0%
Poland	2006	100.0%	2	2	100.0%
Portugal	2006	100.0%	7	14	50.0%
Republic of Moldova	2006	100.0%	10	10	100.0%
Romania	2006	100.0%	1504	1514	99.3%
Russian Federation	2006	100.0%	183	259	73.7%
Serbia and Montenegro	2006	100.0%	21	21	100.0%
Slovakia	2006	100.0%	58	58	100.0%
Slovenia	2006	100.0%	53	53	100.0%
Spain	2006	100.0%	33	50	34.0%
Switzerland	2006	100.0%	0	0	
Tajikistan	2006	100.0%	8	8	100.0%
Ukraine	2006	100.0%	638	665	100.0%
Uzbekistan	2006	100.0%	50	50	100.0%

\*Number of laboratories reporting divided by number of laboratories under surveillance in a given country as an indicator of the geographical coverage of reporting inside the country

# MEASLES EPI DATA:

## Timeliness and completeness of epi reporting and annualized incidence of suspected measles in the European Region as of 13 March 2006

Country	CB	% districts	Completeness	Timeliness	2005		2006		Months of 2006											
					Cases	Incidence	Cases	Incidence	1	2	3	4	5	6	7	8	9	10	11	12
Albania	Y	100%	100%	100%	6	0.2	1	0	0	1										
Andorra	Y		0%	0%	0	0														
Armenia	N		100%	100%	528	13.9	0	0	0											
Austria	N		100%	0%	9	0.1	0	0	0											
Azerbaijan	N		0%	0%	1200	14.5														
Belarus	N		100%	0%	1	0	1	0	1											
Belgium	Y		100%	100%	26	0.3	1	0	1											
Bosnia and Herzegovina	N		0%	0%	28	0.7														
Bulgaria	Y	100%	100%	100%	3	0	0	0	0											
Croatia	Y		100%	100%	5	0.1	0	0	0											
Cyprus	Y		0%	0%	1	0.1														
Czech Republic	Y		0%	0%	2	0														
Denmark	Y		100%	100%	2	0	1	0	1											
Estonia	Y	100%	100%	100%	8	0.6	0	0	0	0										
Finland	Y		100%	100%	1	0	0	0	0											
France	N		0%	0%																
Georgia	N		0%	0%	1351	26.4														
Germany	N		100%	100%	778	1	38	0	38											
Greece	N		0%	0%	116	1.1														
Hungary	Y	100%	100%	100%	2	0	1	0	1											
Iceland	Y		100%	100%	0	0	0	0	0											
Ireland	N	100%	100%	100%	94	2.4	12	0.3	4	8										
Israel	N		0%	0%	1	0														
Italy	N		0%	0%																
Kazakhstan	N		100%	0%	15745	99.2	17	0.1	17											
Kyrgyzstan	N		0%	0%	53	1														
Latvia	Y	100%	100%	100%	3	0.1	1	0	1											
Lithuania	Y	100%	100%	100%	0	0	0	0	0											
Luxembourg	N		0%	0%	0	0														
Malta	N	100%	100%	0%	4	1	0	0	0	0										
Monaco	N		0%	0%																
Netherlands*	Y		100%	100%	5	0	0	0	0											
Norway	Y		0%	0%	0	0														
Poland	N	100%	100%	100%	12	0	1	0	1											
Portugal*	Y		0%	0%	6	0.1														
Republic of Moldova	N		0%	0%	6	0.1														
Romania	Y	100%	100%	100%	3893	12.6	1135	5.2	1135											
Russian Federation	N	100%	100%	100%	444	0.3	17	0	17											
San Marino	N		0%	0%																
Slovakia	Y		100%	100%	0	0	0	0	0											
Slovenia	Y	100%	100%	100%	0	0	0	0	0											
Spain	Y		100%	100%	17	0	20	0	20											
Sweden	Y		0%	0%	12	0.1														
Switzerland	N		100%	100%	62	0.9	0	0	0											
Tajikistan	N		100%	0%	0	0	0	0	0											
The former Yugoslav Republic of Macedonia	N		0%	0%	5	0.2														
Turkey	N		0%	0%	6198	8.7														
Turkmenistan	N		0%	0%	0	0														
Ukraine	N	4%	100%	100%	2392	5.1	17281	37.5	7701	9580										
United Kingdom of Great Britain and Northern Ireland	N		0%	0%	79	0.1														
Uzbekistan	N		100%	0%	1584	5.9	83	0.3	83											
Serbia and Montenegro	N		100%	0%	0	0	0	0	0											
European Region	16	98%	58%	44%	<b>34682</b>	<b>(4.4)</b>	<b>3.8</b>	<b>18610</b>	<b>2.1</b>											
Country	CB	% districts	Completeness	Timeliness	Cases	Incidence	Cases	Incidence	1	2	3	4	5	6	7	8	9	10	11	12
Cases in the European Region by month									9021	9589										

CB: country reporting case based data  
 Data source: reports submitted to the Vaccine-preventable Diseases and Immunization programme of WHO Regional Office for Europe  
 Numbers for each month represent the suspected measles and rubella cases for that month  
 European Region incidence is calculated with all 52 Member States (bold) and with Member States who reported data (blue)  
 \*Some cases were linked to an importation

Data source: Monthly reporting of the European Measles Rubella Laboratory Network coordinated by WHO Regional Office for Europe  
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# Timeliness and completeness of epi reporting and annualized incidence of suspected rubella in the European Region as of 13 March 2006

Country	CB	% districts	Completeness	Timeliness	2004		2006		Months of 2006											
					Cases	Incidence	Cases	Incidence	1	2	3	4	5	6	7	8	9	10	11	12
Albania	Y	100%	100%	100%	0	0	0	0	0											
Andorra	Y		0%	0%	0	0	10	14.8	10											
Armenia	N		0%	0%	733	19.31														
Austria	N		0%	0%	ND	—														
Azerbaijan	N		0%	0%	5 796	70.35														
Belarus	N		0%	0%	4 492	44.82														
Belgium	Y		0%	0%	38	0.37														
Bosnia and Herzegovina	N		0%	0%	43	1.03														
Bulgaria	Y		0%	0%	474	6.2														
Croatia	Y		0%	0%	2	0.04														
Cyprus	Y		0%	0%	6	0.74														
Czech Republic	Y		0%	0%	31	0.3														
Denmark	Y		0%	0%	ND	—														
Estonia	Y	100%	100%	100%	22	1.65	0	0	0											
Finland	Y		0%	0%	0	0														
France	N		100%	0%	ND	—														
Georgia	N		0%	0%	4 809	93.29														
Germany	N		100%	100%	ND	—														
Greece	N		0%	0%	2	0.02														
Hungary	Y		100%	100%	36	0.37														
Iceland	Y		100%	100%	0	0														
Ireland	N	100%	100%	100%	49	1.24	1	0	1	0										
Israel	N		0%	0%	11	0.17														
Italy	N		0%	0%	363	0.63														
Kazakhstan	N		0%	0%	15 103	94.88														
Kyrgyzstan	N		0%	0%	7	0.14														
Latvia	Y		0%	0%	52	2.2														
Lithuania	Y	100%	100%	100%	93	2.54	12	0.3	12											
Luxembourg	N		0%	0%	0	0														
Malta	N		0%	0%	0	0														
Monaco	N		0%	0%	ND	—														
Netherlands*	Y		0%	0%	46	0.29														
Norway	Y		0%	0%	2	0.04														
Poland	N		0%	0%	4 857	12.63														
Portugal*	Y		0%	0%	8	0.08														
Republic of Moldova	N		0%	0%	170	4														
Romania	Y		0%	0%	47 444	213.6														
Russian Federation	N	100%	100%	100%	146 220	103.09	12345	8.6	12345											
San Marino	N		0%	0%	1	3.47														
Slovakia	Y		0%	0%	3	0.06														
Slovenia	Y		0%	0%	1	0.05														
Spain	Y		0%	0%	90	0.23														
Sweden	Y		0%	0%	0	0														
Switzerland	N		0%	0%	ND	—														
Tajikistan	N		0%	0%	567	9.06														
The former Yugoslav Republic of Macedonia	N		0%	0%	33	1.6														
Turkey	N		0%	0%	ND	—														
Turkmenistan	N		0%	0%	26	0.51														
Ukraine	N		0%	0%	31 606	66.2														
United Kingdom of Great Britain and Northern Ireland	N		0%	0%	17	0.03														
Uzbekistan	N		0%	0%	498	1.89														
Serbia and Montenegro	N	100%	100%	0%	303	2.89	0	0	0											
European Region		16	100%		3727	0.4	12368	1.4												
Country	CB	% districts	Completeness	Timeliness	Cases	Incidence	Cases	Incidence	1	2	3	4	5	6	7	8	9	10	11	12
Cases in the European Region by month									12368	0										

CB: country reporting case based data  
 Data source: reports submitted to the Vaccine-preventable Diseases and Immunization programme of WHO Regional Office for Europe  
 Numbers for each month represent the suspected measles and rubella cases for that month  
 European Region incidence is calculated with all 52 Member States (bold) and with Member States who reported data (blue)  
 \*Some cases were linked to an importation

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