

# WHO Epidemiological Brief



## Highlighting in the WHO European Region:

- measles outbreaks
- regional polio-free status certification
- synchronized immunization campaigns

### Summary

#### *Continued measles outbreaks across Europe*

During 2011, measles outbreaks continue to occur in many Member States in the WHO European Region. As of 6 May, 38 countries had reported a total of 7028 confirmed cases. Epidemiological investigations and genotyping have confirmed the transmission of measles virus among several European countries and to the Region of the Americas.

#### *Regional polio-free status certification*

In August 2011, the European Regional Certification Committee for Poliomyelitis Eradication will review the outbreak response and status of poliomyelitis (polio) eradication in the Region.

#### *Synchronized polio vaccination campaigns*

The central Asian republics, Azerbaijan and the Russian Federation are synchronizing rounds of supplementary immunization activities (SIAs) with trivalent oral polio vaccine (tOPV) during April and May 2011. The coverage of the April SIAs was 96–100%.

### Continued measles outbreaks across Europe

Measles viruses continue to spread across the European Region in early 2011, causing thousands of cases in unimmunized people. The group most affected is age that aged  $\geq 20$  years (Fig. 1). This has led to large and extended outbreaks, which can be expected to continue in geographic

areas where coverage with two doses of measles-containing vaccine (MCV) is below 95% (Fig.2)

As of 6 May 2011, 38 countries had reported to the WHO Regional Office for Europe a total of 7028 confirmed measles cases since the start of the year, of which 2632 (37%) were laboratory confirmed, 3929 (60%) clinically confirmed and 467 (3%) epidemiologically linked to a laboratory-confirmed case. The actual number of measles cases may be higher, due to variations in reporting. Of the 7028 reported cases, 29% were in people who had received no doses of MCV and 67% in those who had no records or did not know their vaccination status. Ten Member States had reported measles outbreaks to the WHO Regional Office for Europe.

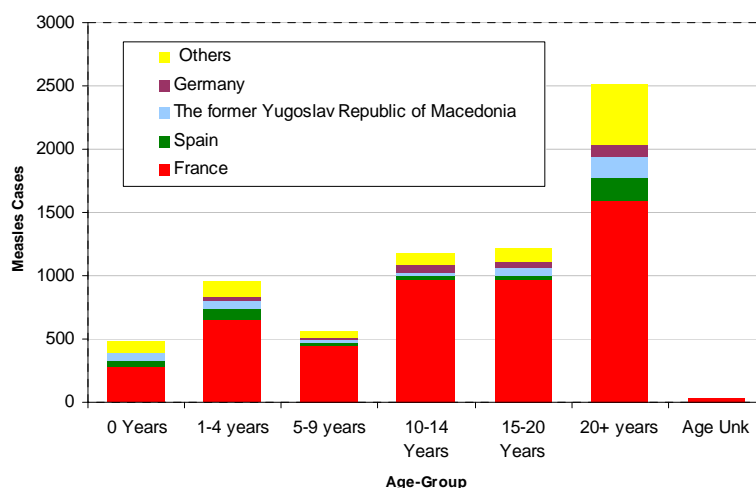
As of 19 April, France had reported over 7500 cases in the first three months of 2011, according to the government web site on surveillance

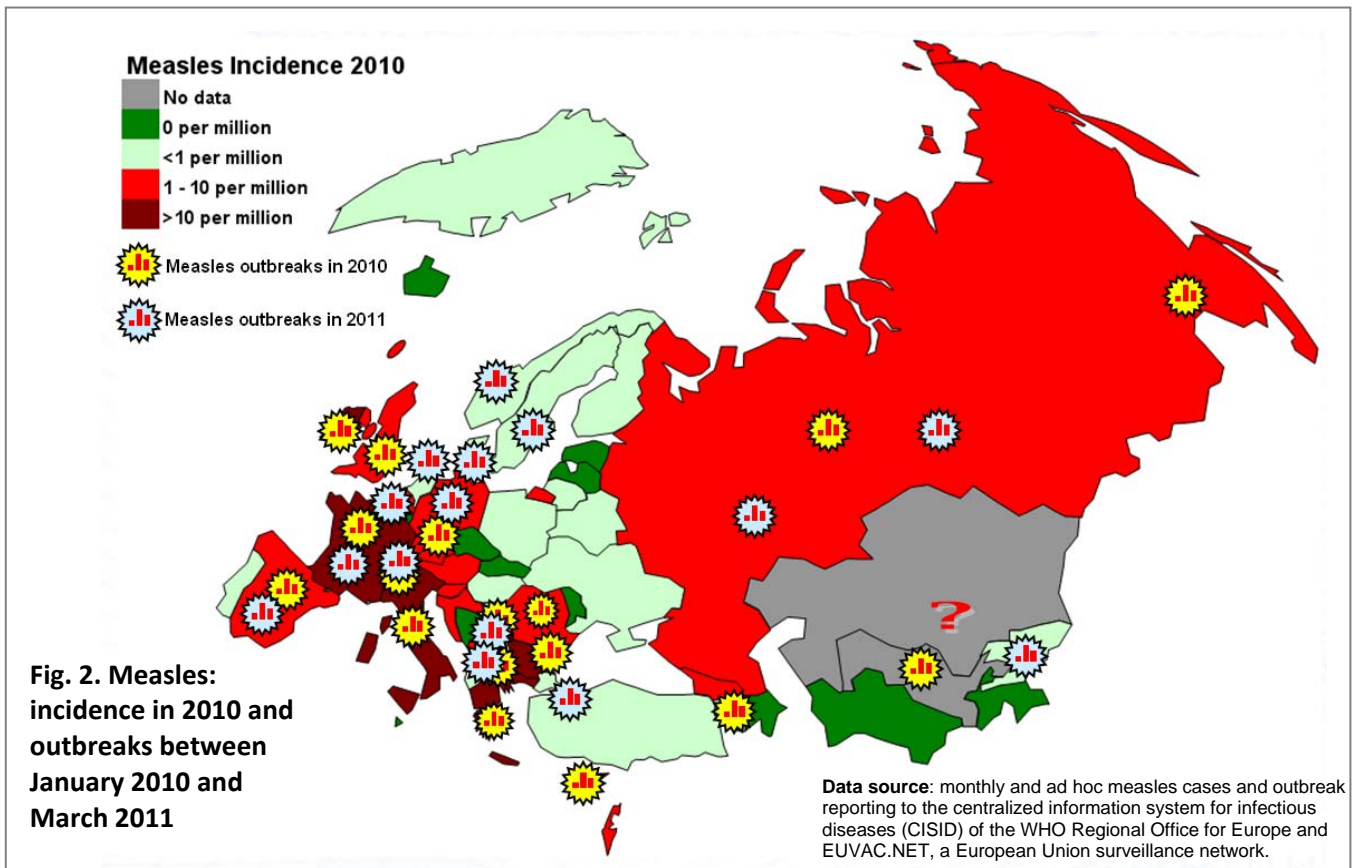
([http://www.invs.sante.fr/surveillance/rougeole/Point\\_rouge\\_ole\\_190411.pdf](http://www.invs.sante.fr/surveillance/rougeole/Point_rouge_ole_190411.pdf)), in contrast to the total of 5090 for 2010.

Spain has reported two measles outbreaks under way since October 2010. In the first, more than 600 cases have been reported in the autonomous community of Andalusia; the most affected areas are its capital, Seville, and surrounding municipalities, where more than 350 cases have been reported since 1 January 2011. The second outbreak is in the province of Granada, where about 250 cases have been reported since October 2010.

The former Yugoslav Republic of Macedonia had reported 636 cases of measles from September 2010 through the first week of April 2011, with more than 400 diagnosed in 2011. The capital, Skopje, has been most affected by the outbreak.

**Fig. 1. Age distribution of measles cases reported in 2011 in the WHO European Region (N=7028)**





Turkey reported an outbreak with more than 80 cases in Istanbul in January 2011. Serbia reported nearly 300 cases in the south-eastern city of Leskovac. As of 29 April, Switzerland had 455 cases of measles (<http://www.bag.admin.ch/dokumentation>).

Belgium has reported 100 cases since January 2011, in contrast to 40 cases in 2010. All three regional entities (Brussels and the Flanders and Walloon regions) have reported cases. Genotype analysis of the virus strains confirmed a direct epidemiological link with the outbreak in France for 15 cases in Belgium. These importations led to outbreaks, mostly in people too young to be vaccinated and those refusing to vaccinate on the grounds of anthroposophic beliefs. Genotype analysis also confirmed epidemiological links of sporadic cases and small outbreaks (21 cases) occurring in similar anthroposophic communities in the Netherlands.

In addition, Denmark, Finland, Germany, Norway, Romania, the Russian Federation, Sweden, and the United Kingdom have reported outbreaks and a significant increase in the number of cases in 2011.

For these outbreaks, genotyping continues to be critical in defining sources of importation and understanding transmission pathways, and monitoring indigenous and imported measles virus, which is required to document progress towards elimination. In all the outbreaks, analysis

has confirmed the D4 genotype of measles virus, except in Grenada, Spain (B3) and in Turkey (D9: originating from and common in South-east Asian countries such as Indonesia and Malaysia).

A new genotype was recently detected in Europe: G3, which is commonly found in South-east Asia. Only a few cases (25) have been found so far. This genotype appears to have established itself as a minority variant in France, from which it is exported to other countries.

The European Region has not seen similar outbreaks of rubella in 2011, but some countries (such as France and Germany) do not have comprehensive surveillance systems for rubella. Since January 2011, 27 Member States have reported 22 confirmed rubella cases, 3 (14%) of which were laboratory confirmed and 19 (86%), clinically confirmed.

European Immunization Week (EIW), 23–30 April 2011, gave the 52 participating Member States an opportunity to advocate immunization and, in some cases, conduct outreach and SIAs. At the EIW 2011 launch in Brussels, opened by Her Royal Highness Princess Mathilde of Belgium, Member States shared their experiences and plans for accelerating action, and renewed their political commitment to eliminating measles and rubella from the European Region by 2015.

## Importation of wild poliovirus and response measures in Europe.

In 2010, the WHO European Region experienced the first importation of wild poliovirus since it was certified polio free in 2002. Fig. 3 shows the epidemiological curve, the date of the last case in each affected country, and the SIAs conducted in response to the outbreak (475 cases reported in 4 countries).

The European Regional Certification Commission for Poliomyelitis Eradication met for the twenty-fourth time on 26–27 January 2011 in St Petersburg, Russian Federation. Member States affected by the outbreak (Kazakhstan, Kyrgyzstan, the Russian Federation, Tajikistan, Turkmenistan and Uzbekistan) presented their epidemiological situations and response measures. The Commission reviewed this evidence to determine whether wild poliovirus were still circulating in the European Region and whether the Region were still polio free.

At its meeting in August 2011, the Commission will decide whether countries have adequately:

- addressed immunization coverage and implemented needed SIAs;
- provided detailed information on their polio surveillance systems; and

- established laboratory arrangements for specimen transport and testing in a timely manner.

If the Commission believes wild poliovirus transmission has been interrupted, it may say:

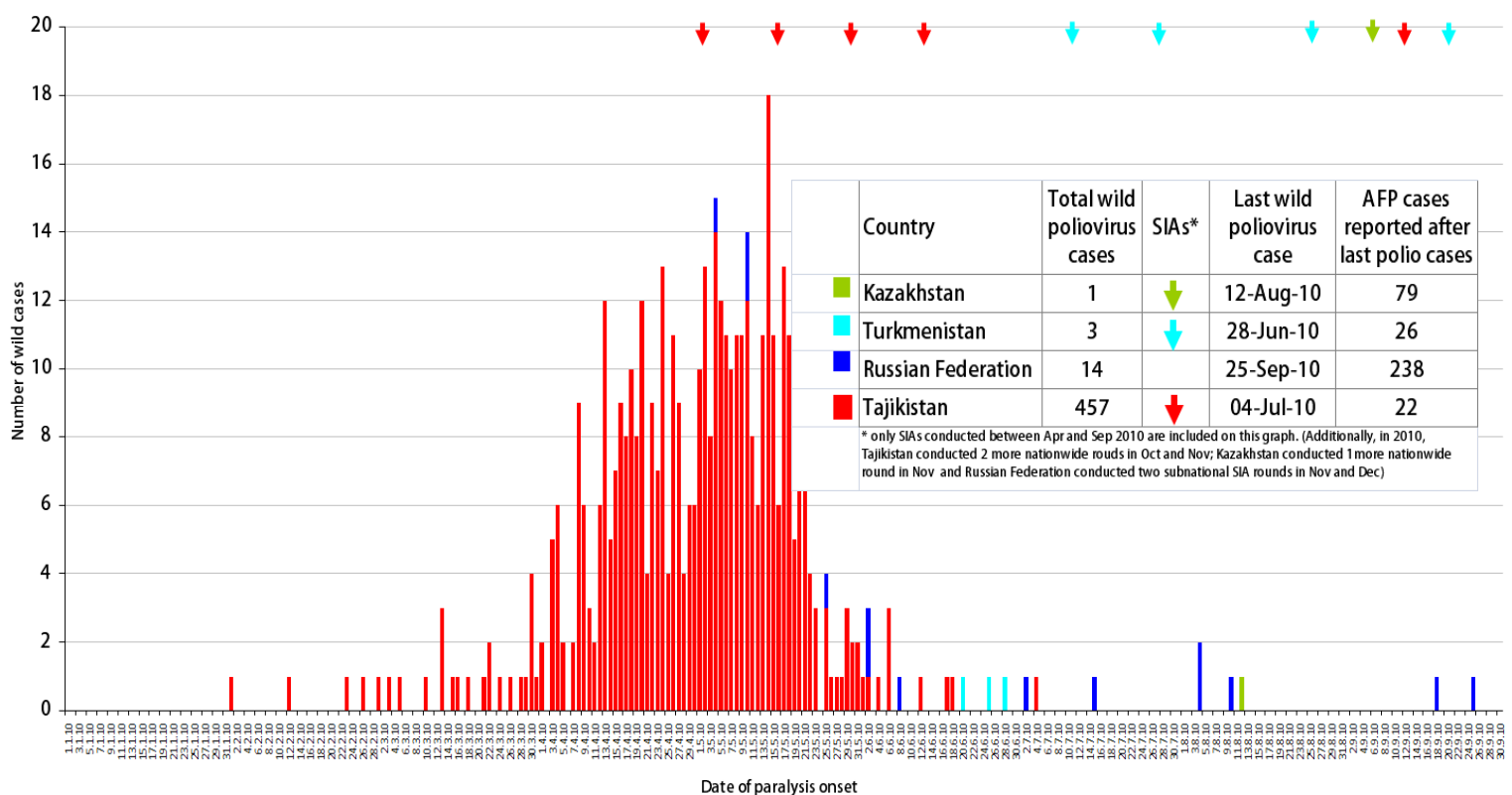
- 12 months have passed since wild poliovirus type 1 was imported into the European Region;
- appropriate, effective actions have been taken, with no sign of continued transmission; and
- there is thus no need to repeat the process of certifying eradication in the Region.

If the Commission doubts that the evidence on the three conditions reviewed shows successful interruption, however, it can:

- postpone a decision on the need for recertification in the Region;
- require recertification in a subregion only; or
- require recertification for all 53 Member States.

The WHO Regional Office for Europe discussed with Member States the need to coordinate their SIAs to achieve synergy and sustain the momentum for a polio-free Region. Acting on this advice, countries are conducting synchronized SIAs.

**Figure 3. Confirmed wild polio cases and SIAs by country and date (April-September 2010), including date of last case and acute flaccid paralysis cases reported since last polio case.**



## Synchronized SIAs in the central Asian republics, Azerbaijan and the Russian Federation

Seven Member States (Azerbaijan, Kazakhstan, Kyrgyzstan, the Russian Federation, Tajikistan, Turkmenistan and Uzbekistan) are conducting synchronized rounds of SIAs with tOPV between April and June 2011, to improve population immunity in the most vulnerable population group (aged 0–5 years).

Two additional rounds of national immunization days (NIDs)

or subnational immunization days (sNIDs) in this age group, synchronized between neighbouring countries, should close any remaining immunity gaps and prevent similar incidents in future. In addition, Kazakhstan and the Russian Federation carried out rounds of SIAs in February and March, as part of their outbreak-response activities. Kazakhstan has already reported successful implementation of its February round (using monovalent oral polio vaccine type 1 – mOPV1), with reported coverage of 98.8%. Table 1 presents SIA dates, coverage and target populations by country.

**Table 1. Synchronized SIAs in five central Asian republics, Azerbaijan and the Russian Federation, by date, target population and administrative coverage of OPV**

Country	February	April	May
Azerbaijan		25-30 April SNIDs tOPV (districts bordering Dagestan, the Russian Federation) Target 0-5 yrs / 31,616 Reached NA/pending Coverage NA/pending	
Kazakhstan	21-27 Feb SNIDs mOPV1 Target 0-6yrs / 411,653 Reached 406,922 Coverage 98.8%		3 – 7 May, NIDs tOPV Target < 6yrs /1.9M 16 – 20 May, SNIDs mOPV1 Target 7-15yrs / 0.39M in South Kazakhstan
Kyrgyzstan		18-23 April NIDs tOPV Target <15yrs / 1.63M; Reached 1,583,463 Coverage 97.2%	23-29 May NIDs tOPV Target <15y / 1.67M;
The Russian Federation		04–09 April SNIDs tOPV Target 6m-15yrs / 1.3M Reached 1,248,000 Coverage 96%	03-07 May SNIDs tOPV Target 6m-15yrs /1.3M
Tajikistan		18-22 April NIDs tOPV Target <6yrs / 1.0 M; Reached 993,462 Coverage 99,3%	23-27 May NIDs tOPV Target <6yrs / 1.2M;
Turkmenistan		25-30 April NIDs tOPV Target <6yrs / 0.67M Reached 595,164 Coverage 99,8%	30 May – 4 June NIDs tOPV Target <6yrs / 0.67M
Uzbekistan		18-23 April NIDs tOPV Target <6yrs (0-15 in Surkhandarya); / 3.06M Reached 3,071,423 Coverage 100.4%	23-29 May NIDs tOPV Target <6yrs / 2.98M

### Contact us

Vaccine-preventable Diseases and Immunization

WHO Regional Office for Europe

Tel.: +45 39 17 1331

E-mail: [vaccine@euro.who.int](mailto:vaccine@euro.who.int)

Web site: <http://www.euro.who.int>

Tel.: +45 39 17 1331

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