EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

MISSION REPORT

MEASLES OUTBREAK IN AUSTRIA

Risk assessment in advance of the EURO 2008 football championship 14–17 April 2008

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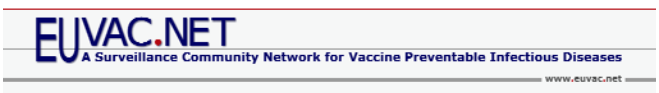
ECDC MISSION REPORT

Measles outbreak in Austria
Risk assessment in advance of the EURO 2008 football championship



The team was composed of Dr Peter Kreidl from the Preparedness and Response Unit of ECDC and Dr Mark Muscat, coordinator of the EU surveillance network for vaccine-preventable diseases (EUVAC.NET)

14–17 April 2008. Vienna and Salzburg, Austria

ACKNOWLEDGEMENTS

We would like to thank the representatives from the Austrian Ministry of Health, and from the regional and local health authorities of Salzburg and Vienna for their hospitality, for facilitating our visit and for their constructive and transparent collaboration.

Our gratitude is extended to the experts at national level from the Ministry of Health, the National Reference Laboratory, the Agency for Food Safety (AGES) and the Vaccination Committee for their expert advice and for sharing valuable information.

We are grateful for the epidemiological data kindly provided to us by the local, regional and national Austrian health authorities and the Swiss and German health authorities. These data were essential for ensuring a successful risk assessment on European level.

CONTENTS

ABBREVIATIONS

AGES	Agency for Food Safety in Austria
BMGFJ	Bundesministerium für Gesundheit, Familie und Jugend (Federal Ministry for Health, Family and Youth)
ECDC	European Centre for Disease Prevention and Control
EPIET	European Programme for Intervention Epidemiology Training
EUVAC.NET	EU surveillance network for vaccine-preventable diseases
EWRS	Early Warning and Response System
GPs	General practitioners
MMR	Combined measles, mumps and rubella vaccine
PCR	Polymerase Chain Reaction
PEP	Post-exposure prophylaxis

1. BACKGROUND

For the last three years, Austria has been considered a low–moderate incidence country (<1 per 100 000 population per year) for measles[1]. The last significant measles outbreak occurred in 2003 involving 64 cases[2].

On 21 March 2008, the Austrian health authorities reported a cluster of measles cases in an anthroposophical school in Salzburg, the capital of one of Austria's nine regions, through the Early Warning and Response System (EWRS). The EU Member States and the European Centre for Disease Prevention and Control (ECDC) were notified that about 40 out of 400 students from the affected school had contracted measles; two additional cases without an epidemiological link were also identified. Immediate control measures were implemented. These included information campaigns in the school and enforcing the recommendation of vaccination as per the Austrian vaccination schedule.

On 2 April, Austria reported through EWRS that the number of reported cases had increased to 120 and that other schools were affected. Four cases had been admitted to hospital. Most of the cases were reported among unvaccinated persons. The outbreak was still limited to Salzburg Region.

By 8 April, a total of 197 cases had been reported and the outbreak was reported to have spread to six other of the nine Austrian regions. A potential link to Switzerland was identified.

Switzerland reported the largest measles outbreak since it became a mandatory notifiable disease in 1999[3]. The outbreak had started in November 2006 and continued since then. All Swiss cantons were reported to have been affected. By mid-April, the number of reported cases exceeded 1 400 since the start of the epidemic.

In south-western Germany an increased number of measles cases (n=16) was reported when compared with previous years. An epidemiological link with the Swiss outbreak was established[4].

The threat of a major multi-state outbreak just two months ahead of the upcoming European Football Championship (EURO 2008, 6–29 June 2008; jointly hosted by Switzerland and Austria) triggered the Austrian health authorities to request a rapid risk assessment of the situation with support from ECDC. The Austrian health authorities agreed for ECDC to provide support for organising a technical meeting aimed at reviewing the epidemiological situation of measles in Austria and the neighbouring regions of Germany and Switzerland.

2. OBJECTIVES OF THE VISIT

The objectives of the visit were:

- To assess the extent of the ongoing outbreak, and the risk for further spread in Europe.
- To join the Austrian health authorities in defining strategies for prevention, investigation and control and to provide evidence for planning a coordinated response, particularly in relation to the upcoming EURO 2008 football championship.

The ECDC-coordinated visit was carried out by a team of two experts with extensive experience in the field of epidemiology, surveillance and control of measles.

During the four-day visit (14–17 April) to Austria the team met with national, regional and local health authorities and visited Salzburg where the outbreak originated, to undertake a risk assessment of the measles situation.

At the end of the visit, the Austrian authorities organised a meeting with experts from Austria, the neighbouring countries, the European Commission, the WHO European Regional Office and ECDC where the findings of the risk assessment and options for the prevention and control of measles virus transmission were discussed, particularly in relation to the EURO 2008 football championship.

Dr Gerd Oberfeld, Michael Haybäckl, Dr Mark Muscat, Dr Peter Kreidl, Dr Christoph König, Dr Christine Fuchs and Dr Gerhard Buchner meeting at the local department of health in Salzburg

3. SOURCES OF INFORMATION

In 2003 a national case-based surveillance system was implemented in Austria. Data are reported from the primary reporter to the district public health officer who reports on a case-based basis to the regional and national level. Laboratory confirmation is forwarded either by the laboratory or by the primary reporter.

As the reports were rarely sent during the outbreak, individual data were obtained from the different regional health departments. For the epidemiological analysis individual data were obtained from the different regional health departments and from the national reference laboratory and merged to a single database. Information on the control measures was obtained from the different stakeholders at regional and national level during the assessment visit.

Representatives from the health authorities of Germany and Switzerland gave an update on the measles situation and control measures taken in their countries during a meeting that was organised at the end of the mission. Representatives from the WHO European Regional Office and the European Commission were also present.

4. MAIN FINDINGS

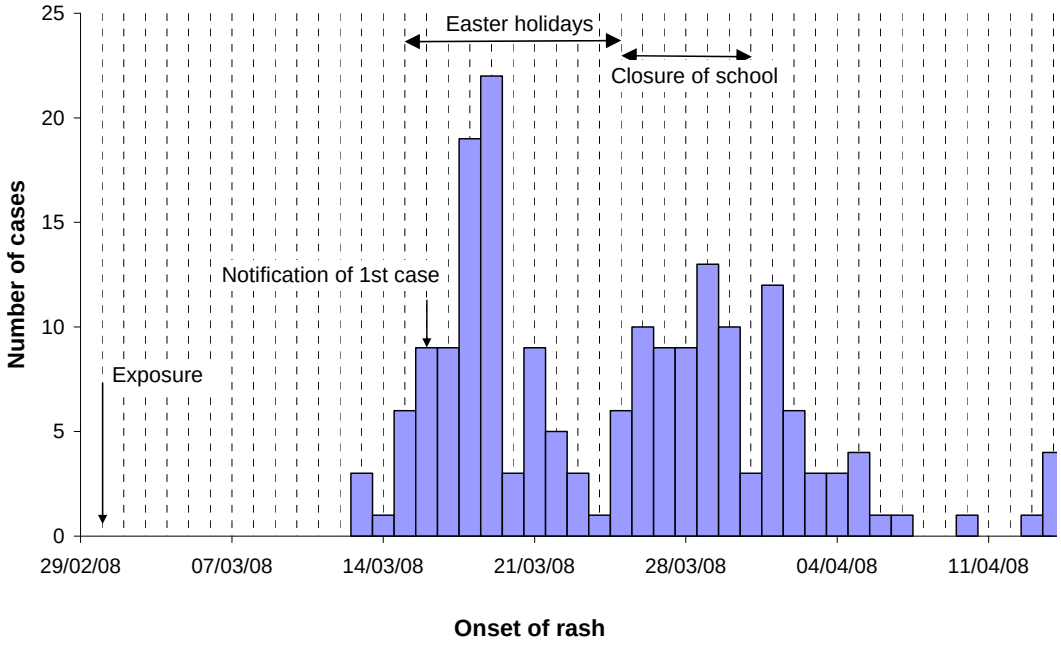
4.1. Epidemiological situation

Epidemic curve

Between 13 March and 14 April a total of 219 measles were reported in Austria. The date of onset of disease was available for 186 cases (Figure 1).

The probable exposure was related to a group of Swiss students who visited the affected anthroposophical school two weeks prior to the onset of disease of the first case in Salzburg. The index case of the Austrian outbreak was identified as a student from an anthroposophical school in Switzerland who visited the Salzburg school with other colleagues. The student fell ill with measles on 7 March, during his stay in Salzburg, a week prior to the primary outbreak case in the anthroposophical school in Salzburg (13 March) and developed a rash immediately after his return to Switzerland. He was therefore considered to have been infectious during his stay in Salzburg.

Figure 1. Number of measles cases by onset of rash in Austria (n=186)



Initially, cases only were limited to the anthroposophical school setting and only later were cases reported in other schools and non-school settings. Transmission outside the anthroposophical school setting was limited.

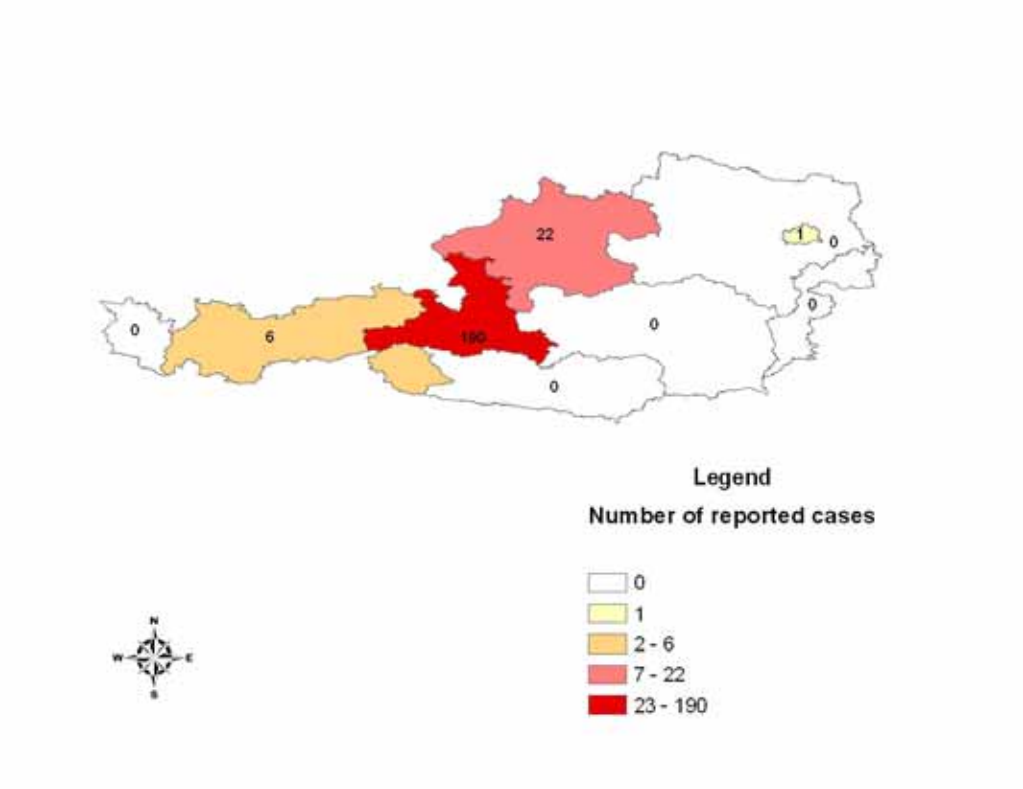
The occurrence of the Easter holidays and the subsequent closure of the school following the holiday was probably responsible for the decrease of cases.

4.1.2. Geographical distribution

The majority of cases (n=190, 86.8% of total n=219) were reported from the region of Salzburg where the anthroposophical school is located, followed by other regions: Oberoesterreich (n=22, 10.0%), Tirol (n=6, 2.7%) and Vienna (n=1, 0.5%). Of all cases, 53.8% (n=118) were linked to the anthroposophical school in Salzburg.

Additionally, 52 cases were reported from Germany, 50 from Bavaria and two from Baden-Württemberg. Four cases from Norway were also linked to the Austrian outbreak.

Figure 2. Number of reported measles cases by Region in Austria (n=219)



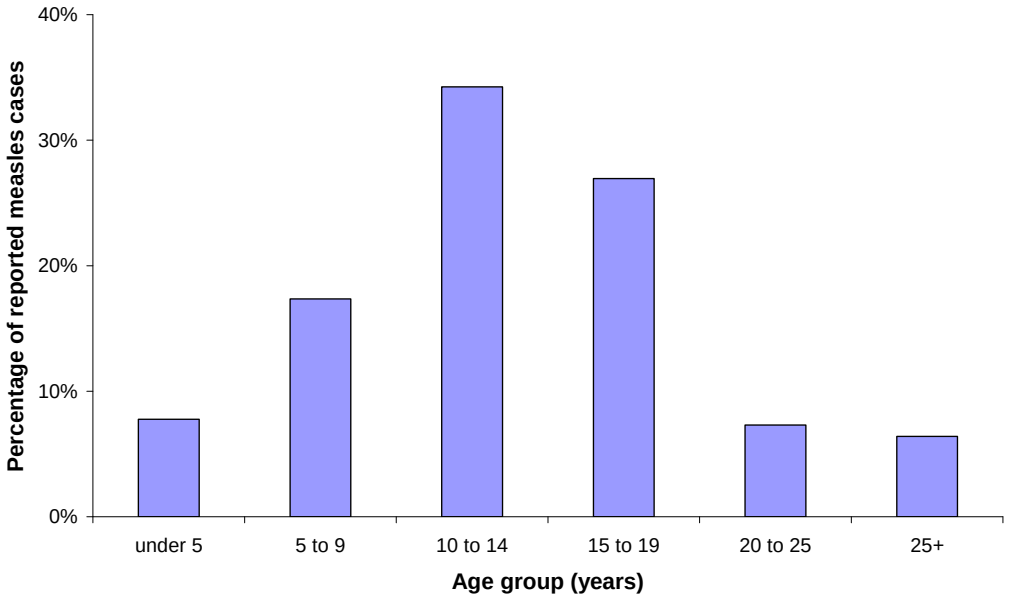
Persons affected

The age distribution ranged from 1 to 47 years (mean, 13.8 years and median, 13 years). The majority (Figure 3) belonged to the 10–14 year age group (n=75, 34.2%). Overall, 13.7% (n=30) of cases were over 19 years of age.

Among the 188 cases for whom the vaccination status was known (85.8% of the total number of cases), the majority (93.6%, n=176) were unvaccinated, nine had received one combined measles, mumps and rubella vaccine (MMR) dose (4.8%) and three persons (1.6%) had received two MMR doses prior to onset of disease. Of the nine persons who had received one MMR dose, three had received it as post-exposure prophylaxis.

As no date of vaccination was available, the three cases with two MMR doses prior to disease onset could also have received the second dose as post-exposure prophylaxis as the effectiveness of two doses of measles-containing vaccine is known to be >98%[5].

Figure 3. Age distribution of measles cases in Austria (n=219)



4.2. Response to the current measles outbreak

Case definition

During the outbreak the following case definition was reported to have been used:

- A person fulfilling the clinical criteria of measles after 1 March; and
- with an epidemiological link to Salzburg city in the period 7–18 days prior to onset of clinical illness with or without laboratory confirmation.

Control strategies for measles cases

For each suspected or confirmed measles case contract tracing has to be conducted. Information on the vaccination status and history of previous disease needs to be documented.

The following strategies were implemented to contain the outbreak:

- Alerting health professionals.
- Raising awareness among the population.
- Closure of the affected school for one week.
- Restriction of access to school for 18 days of all unvaccinated school children with negative disease history.
- Post-exposure prophylaxis free of charge to all susceptible exposed persons.
- Encouraging vaccine uptake by proactive media releases, and providing the vaccine free of charge for all persons up to 15 years old.

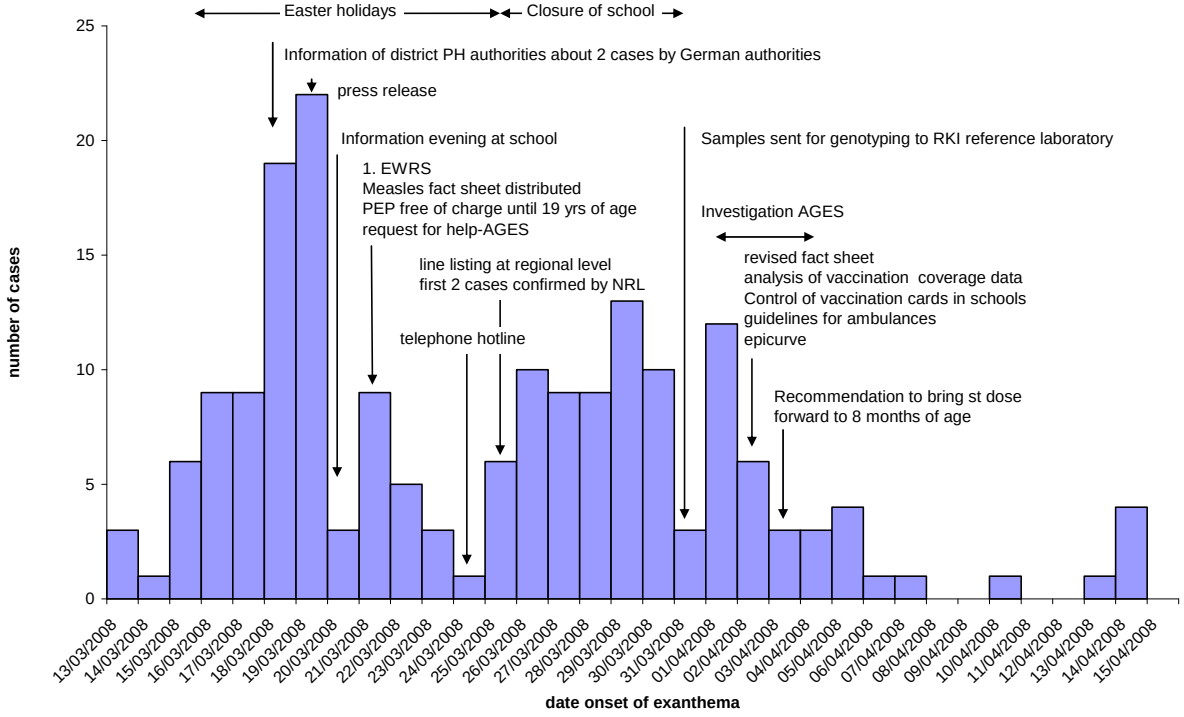
Conclusions on the implemented control strategies

The regional authorities in Salzburg, where the majority of cases occurred, reacted in a very timely and effective manner. This response is likely to have significantly reduced the number of secondary cases (Figure 4).

The other Austrian Regions were alerted and started reporting cases on a daily basis to the national authorities.

Recommendations on vaccination were implemented on a national scale, such as bringing forward the first dose of measles vaccination to the end of the eighth completed month of life in special circumstances.

Figure 4. Timeline of the implementation of control measures in the epi-centre of the outbreak, Salzburg Region, Austria



4.3. Vaccination schedule

Measles (together with mumps) vaccination had been recommended in Austria from 1974 with one dose. MMR has been recommended since 1994 with two doses. Originally the first dose was recommended during the 14th month of life but in 2003 that was brought forward to 13 months. Until the end of 2002 the second dose was recommended at the age of seven years. Since then, the first dose has been given no earlier than 12 months of age with the second dose recommended after a minimum interval of at least one month after the first dose. A catch-up programme has been implemented for those who are unvaccinated and is

given to 7–16 year-olds. MMR vaccination is offered free of charge to all children up to 16 years of age.

MMR vaccine is recommended during the 13th month of life. This recommendation was revised by the 'Impfausschuss' (vaccination committee) during this outbreak and the minimum age for the first dose was set at eight months in special circumstances.

GPs, paediatricians and public health institutions may administer the MMR vaccine. Before 1998, the second dose of MMR was also offered in schools by school doctors. The organisation of the vaccination service is organised at a regional level and so differs between regions.

All mothers receive a 'mother-and-child passport' when pregnant. This includes a vaccination card. During the regular planned post-natal visits with the paediatrician or GP, an appointment for the next vaccination is organised. Parents do not receive an active invitation for vaccinations.

MMR vaccinations are financed as follows: two thirds by the national authorities, one sixth by the regional authorities and one sixth by the health insurance providers.

4.4. Vaccination coverage

Data on vaccination coverage are available by birth cohort from 1998 for children born in 1996 or later.

Electronic regional vaccination registers are kept in three of the nine regions of Austria and contain data on children born after 1996. However, only vaccinations that are administered free of charge (through the refunding mechanism) are recorded. Privately administered vaccinations or vaccines administered to children over 15 years are not centrally registered.

Vaccination coverage is calculated using numerators and denominators from different sources. The numerator is either taken from the electronic registers or is an estimate of the number of doses administered. The numerator is reported on a quarterly basis to the national authorities, where the national coverage is calculated. The denominator is provided by the national statistics department. Coverage is calculated annually at the end of the year and is not estimated by the regions. There is no legal obligation to report vaccinations administered but in some of the regions vaccinating physicians are refunded only upon delivery of coverage data. It is regional responsibility to report coverage.

Vaccination coverage is calculated using the 'cohort model' where the coverage of birth cohorts will be regularly updated. Vaccination coverage of measles is at sub-optimal levels. The national estimate is 84% and no data are available for birth cohorts before 1996 (children aged 11 years or older). No seroprevalence data are available to estimate the proportion of susceptible individuals by age group.

No vaccination campaigns have been conducted in Austria regarding measles.

People objecting to vaccination are reported to be common in Austria, especially in anthroposophical settings, though no estimates on the number of objectors or anthroposophical institutions are available.

4.5. Surveillance and control of measles in Austria

Epidemiological surveillance

Measles became a notifiable disease in Austria in 2002. A standard reporting form for case-based reporting is in place. Medical practitioners (GPs, paediatricians, hospital doctors) are obliged to report suspected measles cases within 24 hours to the district public health authority (Bezirksgesundheitsamt, Amtsarzt) including at weekends and during holidays. The district health authority is responsible for reporting to the regional authorities as soon as possible, although no specific timeframe is given in the law relating to infectious diseases (Epidemiegesetz). The on-call duty system at regional level is organised so that one district public halth doctor covers the entire region, even during weekends.

Reporting by the primary reporter can be done by telephone, fax, email or postal mail but when using the telephone a written confirmation must be sent at a later stage. The district public health officer has to complete the individual reporting form. Data are stored at regional level in paper copies as no electronic database is yet available. The analysis is performed at a national level on a monthly basis. In the event of an outbreak, daily reporting is introduced and the data are also analysed every day.

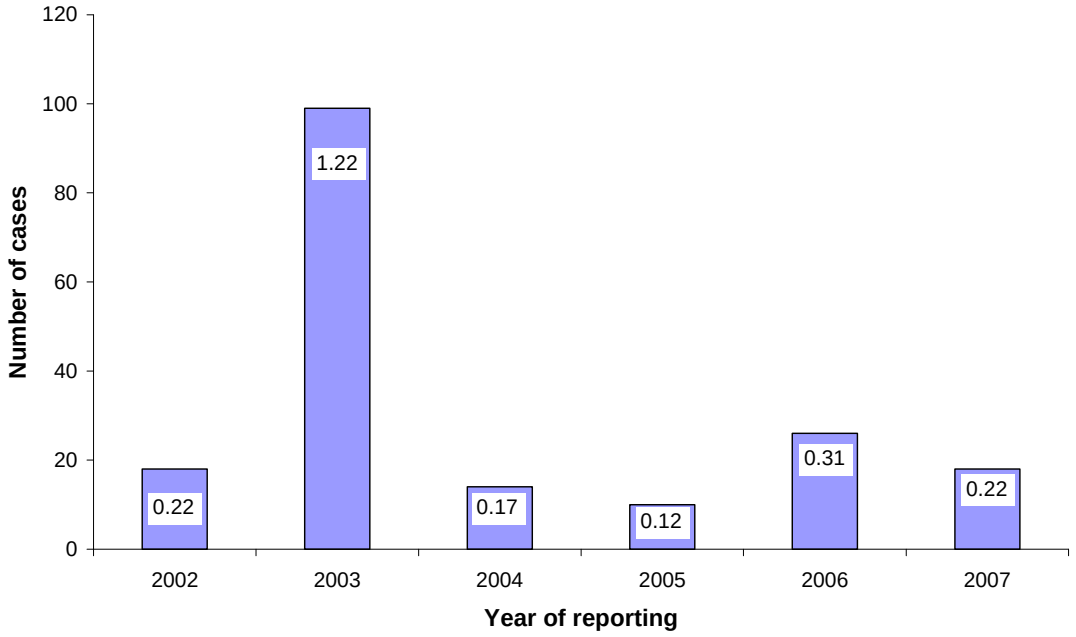
The national authorities has a 24/7 on-call duty system.

Case definitions are used in Austria. All ‘suspected’, ‘confirmed’ and ‘fatal’ cases have to be reported through a national standardised reporting form common for all infectious diseases. The following information is required:

- Demographic details:
  - name,
  - date of birth,
  - school or kindergarten attended by the case,
  - school or kindergarten attended by other household members,
  - place of occupation.
- Information related to the disease:
  - date of onset of disease or death,
  - vaccination status,
  - place where symptoms occurred.
- Hospital admission:
  - date,
  - isolation, and if yes, reason for isolation.

Since measles became a notifiable disease at the end of 2002, the highest number of cases was reported in 2003, corresponding to an incidence of 1.22 per 100 000 inhabitants that year (Figure 5). The majority of these cases were associated with an outbreak that was locally restricted[2].

Figure 5. Annual number of reported measles and incidence per 100 000 inhabitants since measles became a notifiable disease, 2002–07



Laboratory system

The Clinical Institute of Virology of the Medical University of Vienna is the national reference centre for laboratory confirmation of measles. All laboratory-confirmed acute infections (IgM sero-positivity or detection of measles virus nucleic acid by PCR) have to be directly reported to the district public health doctor, ideally within 24 hours. During weekends and public holidays reporting is postponed to the consecutive working day as no 24/7 system is in place in the virology laboratory. Name, age, gender, residence, and information on the clinical symptoms are reported to the laboratory by the primary notifier. Cases admitted to hospital are reported to the health district where the hospital is located. Outpatients are reported to the public health district of the residence of the case. The data are merged with the regional notification data.

Enhanced surveillance (case-based reporting)

A document promoting measles elimination has been drafted but not yet circulated to the regional health authorities. More detailed information is expected to be available after the implementation of the electronic reporting system in 2009.

Duties of the district public health doctor regarding measles

The district public health doctor has to assess the situation, conduct an outbreak investigation, conduct contact tracing, identify contacts, actively contact cases to obtain additional clinical and epidemiological information, implement control measures and report to the regional public health authority. For hospital cases the treating doctor is responsible for obtaining the necessary information.

Tasks to be carried out in regard to contacts:

- verify vaccination status;
- verify history of previous measles;
- distribute information about measles, offering post-exposure prophylaxis;
- prevent them from entering community facilities when suspected of being infectious.

Future control measures for consideration in Austria

The following points were discussed with the Austrian health authorities for consideration in the strengthening of surveillance and control of measles in Austria:

- Conduct a vaccination coverage survey including susceptibility testing (saliva) to identify the proportion of susceptible individuals by age group for any additional immunisation activities (EPIET).
- Continue enhanced surveillance and daily reporting.
- Continue contact tracing.
- Evaluate adopted measures to identify the effectiveness of post-exposure prophylaxis.
- Implement a standard case definition (EU case definition).
- Improve data quality (date of onset of rash, diagnosis classification (i.e. clinical, laboratory-confirmed, epidemiological link)).
- Follow up cases regarding complications (secondary pneumonia, death).
- Provide training in epidemiological data management and analysis for the regional health authorities.
- Publish control measures taken describing in detail the outbreak management.
- Improve the laboratory network and submission of samples (serum, oral fluids, urine) from diagnostic laboratories (public and private) to the national reference laboratory in Vienna; this should be reflected in the national elimination strategic plan.
- Improve the capture of data on complications in line with the suggested form in the elimination plan so that it includes details of the complication (e.g. acute encephalitis, pneumonia) and maintain a sub-acute sclerosing panencephalitis (SSPE) cases database.
- Minimise the risk of interruption of the cold chain at the final point of delivery.

5. RISK ASSESSMENT ANNOUNCEMENTS

On 17 April, during European Immunisation Week, *Eurosurveillance* dedicated a special issue to vaccine-preventable diseases and ECDC published a European risk assessment on the measles situation.

ECDC warns of upsurge of measles in Europe: unvaccinated people are at risk

ECDC News Release, 10 April 2008

In 2007, several European countries experienced high numbers of measles cases, notably Switzerland, and to a lesser extent the United Kingdom (UK) and Romania (more than one case per 100,000 population per year). Full data for measles cases in Europe for 2007 can be found on the website of EUVAC.Net, a European Union (EU) - funded Surveillance Community Network for Vaccine Preventable Infectious Diseases [1].

So far in 2008, over 1,300 measles cases have been reported in Europe. These cases have been in Switzerland, the UK, France, Denmark, Germany, Austria, Spain and Norway (unpublished EU data). The European Union alert system for communicable diseases guarantees that information on these outbreaks is shared between the Member States, the European Commission, the ECDC and the World Health Organization. On April 2, the Centers for Disease Control and Prevention in the United States (US) issued a health advisory regarding cases in several US states, some of which were linked to ongoing outbreaks in Europe and Israel [2]. Since then, more US states and Canada have reported additional cases [3,4,5,6,].

In Europe, very few countries have reached the target of 95% measles vaccination coverage which is necessary to prevent outbreaks and eliminate the disease. Different factors contribute to low vaccination coverage, e.g. some people refuse to be vaccinated, and other groups may be hard to reach such as nomadic populations or specific religious communities [7]. This results in a significant proportion of the European population remaining at risk for acquiring measles. Exposure to the virus may come from travellers who have visited outbreak-affected or endemic areas, as has been reported in the US.

ECDC would like to raise awareness of the ongoing measles outbreaks in several European countries and wants to use this as an opportunity to reiterate the importance of measles vaccination, which is the best available measure for preventing infection. Full protection is obtained by two consecutive doses of measles-containing vaccine. Further details on vaccination schedules can be obtained from national authorities. In the light of the World Health Organization's goal to eliminate measles in the European Region by the year 2010, the current outbreaks are worrying. Improving measles vaccination coverage is essential to containing and preventing further such outbreaks, and for reaching the goal of elimination [7].

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6. INTERNATIONAL MEASLES MEETING

The meeting involved key persons from the Austrian Ministry of Health, including the surveillance unit and experts for outbreak investigation in the AGES (Agency for food safety), and the National Measles Reference laboratory along with representatives from Switzerland, the affected provinces of Germany (Bavaria, Baden-Württemberg), ECDC (Preparedness and Response Unit and Scientific Advice Unit), the WHO European Regional Office, EUVAC.NET and the European Commission. The objective of the meeting was to discuss possible coordinated actions in preparation for, and during, EURO 2008, the European football championship.

The main outcomes of this meeting were:

- Information stressing the importance of measles vaccination for all European citizens with a special emphasis on participants in EURO 2008 would be published on the ECDC website and EU Member States would be encouraged to distribute this information. Similar information had already been released by Switzerland and Austria and should also be released in all EURO 2008 participating countries (EU plus Croatia, Turkey and Russia)[6,7].
- Closer cooperation between the health authorities of Switzerland and Austria in the preparation for, and during, EURO 2008.
- As a long-term strategy to improve the vaccination coverage in Austria, a well-prepared and evidence-based vaccination campaign ('catch-up campaign') for specific risk groups embedded into a general action programme to reach the goals of the WHO Measles Elimination Programme by 2010 should be implemented[8].

7. INFORMATION FOR TRAVELLERS TO THE EURO 2008 FOOTBALL CHAMPIONSHIP

Since Austria and Switzerland would be hosting the European football championship and were considered as high incidence countries for measles, the risk of further transmission of the disease across Europe and beyond was real. Therefore ECDC published the following information on measles vaccination on its website on 24 April following the International Measles Meeting in Vienna.

ECDC Information on Measles Vaccination

ECDC News release, 24 April 2008

In preparation for the EURO 2008 football championship in June 2008, the health authorities in Austria [1] and Switzerland [2] have issued measles vaccination advice to people intending to visit these countries. These travel advisories were issued following recent outbreaks of measles in a number of European countries, notably Austria, Switzerland and the UK. In this context, ECDC is stressing the importance for European citizens and visitors to Europe to be vaccinated against measles if they have not already been vaccinated or have not previously had measles. The vaccine should be administered according to their national authority recommendations.

Measles outbreaks are being reported in some European countries, even though there has been an overall reduction in the total number of reported measles cases across the continent. Insufficient vaccination coverage in the general population is a key factor in driving the current measles outbreaks [3]. For the successful elimination of measles, at least 95% of the population should receive two doses of the combined measles, mumps and rubella (MMR) vaccine.

ECDC is closely working on behalf of the Commission to prepare the scientific basis for vaccination schedules, in view of the Commission plans to propose in 2009 a Council Recommendation on childhood vaccination in the EU.

1. http://www.bmgfj.gv.at/cms/site/attachments/9/5/7/CH0525/CMS1207311214138/health_protection_during_uefa_euro_2008_-_recommendations.pdf
2. http://www.bag.admin.ch/themen/medizin/00682/04583/index.html?lang=en#
3. http://ecdc.europa.eu/News/2008_04_10.html

8. CONCLUSIONS

The ongoing transmission of measles in Austria and Switzerland is likely to further continue beyond the EURO 2008 football championship.

The outbreak in Austria has demonstrated the vulnerability of countries with sub-optimal vaccination coverage against measles in particular groups. Such outbreaks have great potential to erupt, and spread locally and across borders.

To achieve the goal of eliminating measles in Europe by 2010, greater political will and commitment in these countries are necessary to improve policies that aim to better target susceptible individuals with measles vaccination programmes in both the general population and particular risk groups. These programmes should aim at a minimum of 95% vaccination coverage with two doses of the MMR. Such activities will have to be supported by information campaigns highlighting the importance and benefits of the MMR vaccine.

A high degree of vigilance is required, particularly when mass gatherings take place in countries reporting high incidence rates of measles or where outbreaks are occurring. This involves intensifying surveillance and ensuring good communication strategies between European countries and international health agencies such as WHO European Regional Office, the European Commission, ECDC and EU-projects likes EUVAC.NET. This risk assessment has proved to be a good example of close collaboration to pool efforts and resources in managing a health crisis.

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7. EURO 2008 and communicable diseases. Swiss Federal Office of Public Health. Available from: http://www.bag.admin.ch/themen/medizin/00682/04583/index.html?lang=en
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ANNEX 1. MISSION PROGRAMME

Monday, 14 April 2008		
11:00 – 13:00	Meeting at Bundesministerium für Gesundheit, Familie und Jugend (BMGFJ) [Federal Ministry for Health, Family and Youth]	Recent outbreak activities on national level (legal basis, national surveillance, vaccination programme, electronic reporting)
14:00 – 15:00	Meeting at Regional Health Board, Vienna	Operation of vaccination programme, surveillance on regional level
16:00 – 17:00	Meeting continued at BMGFJ	
Tuesday, 15 April 2008		
11:00	Meeting at Regional Health Board, Salzburg	Discussion of recent outbreak
Wednesday, 16 April 2008		
09:30 – 10:30	Meeting at BMGFJ	National vaccination programme; vaccine delivery in current outbreak situation; payment
11.00 – 12:00	Meeting at National Reference Centre	Laboratory diagnosis
14:00 – 15:00	Audio conference with Head of National Immunisation Board	Recommendations of the Austrian Immunisation Board
16:00 – 17:00	Meeting at BMGFJ	Debriefing by the investigation team

ANNEX 2. PERSONS MET

National level

Bundesministerium für Gesundheit, Familie und Jugend (Ministry of Health), Vienna
DDr. Reinhild Strauss
Gabriela El Belazi
Dr. Robert Muchl
Dr. Petra Feirabend

National Measles Reference Laboratory, Vienna
Univ. Prof. Dr. Heidemarie Holzman

National Vaccination Advisory Board
Univ. Prof. Dr. Ingomar Mutz

Regional level, Vienna

Magistratsabteilung 15
Gesundheitsdienst der Stadt Wien
Fachbereich Infektionsvorsorge
Jana Stirling
Dr. Ursula Karnthaler

MA-40-Soziales
Sozial- und Gesundheitsrecht
Eva Schantl-Wurz

Landessanitätsdirektion
MA-15-AL
Dr. Spacek Karin

Regional level, Salzburg

Landessanitätsdirektion
Dr. Christoph König
Dr. Gerd Oberfeld
Michael Haybäckl

MA 1/00
Dr. Christine Fuchs
Mag. Christina Hemetsberger

MA 1/04 Gesundheitsamt
Michael Schnellinger
Dr. Gerhard Buchner
Helga Perner
Markus Coraf

ANNEX 3. AGENDA OF THE INTERNATIONAL MEASLES MEETING

Thursday, 17 April 2008

Chair: GD Prof Dr. Hubert Hrabcik (replaced by DDr. Strauss)		
10:45 – 11:00	Opening (Scope, purpose and objectives of the meeting)	DDr. Reinhild Strauss
11:00 – 11:45	Update on the situation in Austria (including results of risk assessment and proposed options	Dr. Mark Muscat Dr. Peter Kreidl
11:45 – 12:00	Sub-acute sclerosing panencephalitis cases in Austria	Prof. Heidemarie Holzmann
12:00 – 12:15	Situation Bavaria	Dr. Wolfgang Hautmann
12:30 – 13:00	Situation Switzerland	Dr. Virginie Masserey Spicher
13:00 – 13:30	*Lunch break*	
Chair: Denis Coulombier		
13:30 – 15:00	Implications of the measles situation on the EURO 2008	DISCUSSION
15:00 – 15:15	*Coffee break*	
Chair: GD Prof. Dr. Hubert Hrabcik replaced by DDr. Strauss		
15:15 – 16:00	Conclusions and closing remarks	GD Prof. Dr. Hubert Hrabcik replaced by Dr. Muchl and DDr. Strauss

ANNEX 4. PARTICIPANTS AT THE INTERNATIONAL MEASLES MEETING

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Lopalco, Dr. Pierluigi	European Centre for Disease Prevention and Control Tomtebodavägen 11A SE - 171 83 Stockholm - Sweden

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