Certification of Poliomyelitis Eradication

Fifteenth meeting of the European Regional Certification Commission
Copenhagen, 19–21 June 2002

EUROPEAN REGION DECLARED 'POLIO-FREE'

WORLD HEALTH ORGANIZATION
EUROPE

Fifteenth meeting of
the European Regional Commission
for the Certification
of Poliomyelitis Eradication

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  Scherfigsvej 8
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EUROPE

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ABSTRACT

The fifteenth meeting of the European Regional Commission for the Certification of the Eradication of Poliomyelitis (RCC) was held at the World Health Organization (WHO) Regional Office for Europe, Copenhagen, Denmark on 19–21 June 2002. In this unique meeting, the RCC scrutinized national documents prepared by all 51 Member States of the Region in order to make an historic decision: to certify the European Region of WHO as "poliomyelitis free". The objectives of the meeting were to assess progress made towards certification of poliovirus eradication in the European Region, to discuss ongoing activities for the post-certification period (that is, strengthening immunization services, polio surveillance and the regional polio laboratory network), and to brief Member States on the regional and global situation regarding polio eradication. The RCC meeting consisted of two plenary and four private sessions. Certification was based on the examination of detailed scientific data provided by each country and supplemented by WHO assessment missions, with an emphasis on national poliovirus surveillance. Each National Certification Committee (NCC) provided an official statement summarizing the evidence that their country had been free from indigenous wild poliovirus transmission for the previous three years. In addition, 16 countries made special presentations to the Commission during the meeting. Based on careful consideration of all of the evidence presented, the RCC concluded that the transmission of wild poliovirus had been interrupted in all 51 Member States of the European Region and, on 21 June 2002, the Commission certified the European Region to be poliomyelitis free. The RCC emphasized that, until global polio eradication has been achieved, importation of wild poliovirus from polio-endemic regions is possible and therefore each Member State and WHO must sustain the highest levels of polio immunization and surveillance.

Contents

CERTIFICATE

WORLD HEALTH ORGANIZATION
EUROPEAN REGION

REGIONAL COMMISSION FOR THE CERTIFICATION
OF POLIOMYELITIS ERADICATION

THE COMMISSION CONCLUDES, FROM EVIDENCE PROVIDED BY THE NATIONAL CERTIFICATION COMMITTEES OF THE 51 MEMBER STATES, THAT THE TRANSMISSION OF INDIGENOUS WILD POLIOVIRUS HAS BEEN INTERRUPTED IN ALL COUNTRIES OF THE REGION. THE COMMISSION ON THIS DAY DECLARES THE EUROPEAN REGION POLIOMYELITIS-FREE.

SIR JOSEPH SMITH, CHAIRMAN

DR GEORGE F. DREJER

PROFESSOR MARGARETA BÖTTIGER

PROFESSOR SERGEY G. DROZDOV

PROFESSOR ISTVAAN DÖMÖK

DR DONATO GRECO

DR WALTER DOWDLE

PROFESSOR BURGHARD STÜCK

COPENHAGEN, 21 JUNE 2002

European Regional Certification Commission chairperson, Sir Joseph Smith, declaring the

The fifteenth meeting of the European Regional Commission for the Certification of Eradication of Poliomyelitis was very special. It was the meeting in which the Commission, also known as the Regional Certification Commission (RCC), scrutinized official documents from all 51 Member States in order to make an historic decision: to certify the European Region of the World Health Organization "poliomyelitis free". The formal certification process in Europe had been initiated in March 1996, when the RCC, an independent panel of international public health experts, convened its first meeting to discuss the criteria and the strategies for the certification of the European Region.

European Region to be polio-free, Ny Carlsberg Glyptotek, Copenhagen, 21 June 2002

Before the meeting, members of the RCC received all the required national documents and carefully studied the evidence. During the meeting, which was held in the World Health Organization Regional Office for Europe, Copenhagen, Denmark from 19 to 21 June 2002 the RCC worked intensively, clarifying questions and discussing specific issues with selected countries. The RCC held four private meetings and two plenary sessions. Late in the evening of 20 June, the RCC concluded that the transmission of indigenous poliovirus had been interrupted. The RCC announced its decision to certify the European Region of WHO as poliomyelitis-free on 21 June 2002, at the morning plenary session.

Sir Joseph Smith, Chairman of the Regional Certification Commission (RCC), opened the meeting and Dr Roberto Bertollini, Director of Technical Support, gave an opening address on behalf of the WHO Regional Director. Secretaries for the meeting were Dr George Oblapenko, Dr Nedret Emiroglu and Dr Steven Wassilak. Rapporteur for the meeting was Dr Ray Sanders. The meeting programme is provided in Annex 1, and the list of participants in Annex 5.

This report of the historic meeting begins with the ceremony of signing the certificate at the Ny Carlsberg Glyptotek and then the RCC and the design of the certification process is described in detail. The materials documenting the two plenary sessions are presented and discussions held during the private meetings of the RCC are also reflected in this report.

SCOPE AND PURPOSE

The scope and purpose of the meeting were to:

- assess the progress towards certification of poliovirus eradication in the European Region of WHO;
- discuss continuing action for post-certification in the European Region (that is, strengthening immunization services, surveillance and laboratory network);
- brief the European Member States on the Regional and global situation (that is, on post-certification policies and routine immunization).

A video presentation produced by WHO, "Polio-Free Europe! 2002", describing the history of polio eradication and its progress in the European Region was shown at the start of the plenary session.

CERTIFICAT

ORGANISATION MONDIALE DE LA SANTÉ
RÉGION EUROPÉENNE

COMMISSION RÉGIONALE POUR LA CERTIFICATION
DE L'ÉRADICATION DE LA POLIOMYÉLITE

LA COMMISSION CONCLUT,
SUR LA BASE DES DONNÉES
COMMUNIQUÉES PAR
LES COMMISSIONS NATIONALES
DE CERTIFICATION
DES 51 ÉTATS MEMBRES,
QUE LA TRANSMISSION
DU POLIOVIRUS SAUVAGE
INDIGÈNE A ÉTÉ INTERROMPUE
DANS TOUS LES PAYS DE LA RÉGION.
LA COMMISSION DÉCLARE
AUJOURD' HUI LA RÉGION EUROPÉENNE
INDEMNE DE POLIOMYÉLITE.

SIR JOSEPH SMITH, PRÉSIDENT

DR GEORGE F. DREJER

PROFESSEUR MARGARETA BÖTTIGER

PROFESSEUR SERGEY G. DROZDOV

PROFESSEUR ISTVAAN DÖMÖK

DR DONATO GRECO

DR WALTER DOWDLE

PROFESSEUR BURGHARD STÜCK

COPENHAGUE, LE 21 JUIN 2002

ZERTIFIKAT

WELTGESUNDHEITSORGANISATION
EUROPÄISCHE REGION

REGIONALKOMMISSION FÜR DIE BESTÄTIGUNG
DER POLIO-ERADIKATION

ANHAND DER VON DEN NATIONALEN ZERTIFIKATIONSAUSSCHÜSSEN DER 51 MITGLIEDSTAATEN VORGELEGTEN FAKTEN KOMMT DIE KOMMISSION ZU DEM SCHLUSS, DASS DIE ÜBERTRAGUNG VON EINHEIMISCHEM POLIO-WILDVIRUS IN SÄMTLICHEN LÄNDERN DER REGION UNTERBROCHEN WORDEN IST. DIE KOMMISSION ERKLÄRT DIE EUROPÄISCHE REGION HEUTE ZUR POLIOFREIEN REGION.

SIR JOSEPH SMITH, VORSITZENDER

DR GEORGE F. DREJER

PROFESSOR MARGARETA BÖTTIGER

PROFESSOR SERGEY G. DROZDOV

PROFESSOR ISTVAAN DÖMÖK

DR DONATO GRECO

DR WALTER DOWDLE

PROFESSOR BURGHARD STÜCK

KOPENHAGEN, 21. JUNI 2002

СЕРТИФИКАТ

ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ
ЕВРОПЕЙСКИЙ РЕГИОН

РЕГИОНАЛЬНАЯ КОМИССИЯ ПО СЕРТИФИКАЦИИ
ЛИКВИДАЦИИ ПОЛИОМИЕЛИТА

НА ОСНОВАНИИ ДАННЫХ,
ПРЕДСТАВЛЕННЫХ НАЦИОНАЛЬНЫМИ
СЕРТИФИКАЦИОННЫМИ КОМИТЕТАМИ
51 ГОСУДАРСТВА РЕГИОНА,
КОМИССИЯ ЗАКЛЮЧАЕТ,
ЧТО ПЕРЕДАЧА ЭНДЕМИЧНОГО
ДИКОГО ПОЛИОВИРУСА
ПРЕРВАНА ВО ВСЕХ СТРАНАХ РЕГИОНА.
КОМИССИЯ ОБЪЯВЛЯЕТ
ЕВРОПЕЙСКИЙ РЕГИОН С
СЕГОДНЯШНЕГО ДНЯ СВОБОДНЫМ
ОТ ПОЛИОМИЕЛИТА.

SIR JOSEPH SMITH, CHAIRMAN

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PROFESSOR ISTVAAN DÖMÖK

DR DONATO GRECO

DR WALTER DOWDLE

PROFESSOR BURGHARD STÜCK

КОПЕНГАГЕН, 21 ИЮНЯ 2002 Г.

PLENARY SESSION OF
THE EUROPEAN REGIONAL CERTIFICATION COMMISSION
ON 21 JUNE 2002

The ceremony of signing of the certificate at the Ny Carlsberg Glyptotek

Opening remarks by Dr Marc Danzon, Regional Director, WHO Regional Office for Europe

The historic decision to certify the European Region of the World Health Organization (WHO) poliomyelitis-free was announced this morning at the meeting of the European Regional Commission for the Certification of Poliomyelitis Eradication (RCC) in Copenhagen. This decision is the most important public health milestone of the new millennium. It means there is no longer wild poliovirus circulation in the European Region. It means that some 873 million people living in the Region's 51 Member States do not need to fear contracting endemic wild poliovirus any more.

The European Region has been free of indigenous poliomyelitis for over three years. Europe's last case of indigenous wild poliomyelitis occurred in eastern Turkey in 1998, when the virus paralysed a two-year-old unvaccinated boy. However, poliovirus imported from poliomyelitis-endemic countries remains a threat. As we have experienced in 2001 alone, there were three poliomyelitis cases among Roma children in Bulgaria and one non-paralytic case in Georgia – all caused by poliovirus originating from the Indian subcontinent. As you will remember a decade ago, imported poliovirus paralysed 71 people and caused 2 deaths in a community in the Netherlands that refused vaccination.

The path to a poliomyelitis-free European Region began in 1988, following the call of the World Health Assembly to eradicate poliomyelitis. A partnership was set up, spearheaded by WHO, Rotary International, the US Centers for Disease Control and Prevention (CDC) and UNICEF, to free the world of the disease. Success in Europe was achieved through an unprecedented series of coordinated national immunization campaigns, known as Operation MECACAR, which involved 18 poliomyelitis-endemic countries and areas in the European and Eastern Mediterranean Regions of WHO. Sixty million children under five years of age received two extra doses of poliomyelitis vaccine every year from 1995 to 1998. Since 1997, MECACAR has included special door-to-door mass vaccination in the high-risk areas of these countries. Supplementary vaccination campaigns have continued in the highest-risk countries through to 2002. This synchronization of immunization among neighbouring countries has become a model for eradicating the disease globally.

The independent panel of international public health experts that comprises the Regional Certification Commission has been engaged in the formal poliomyelitis-free certification process in Europe since 1996. I remember the day very clearly when I was opening the first meeting of the Certification

Commission in Paris in March 1996. It was an historic meeting, where the Regional Certification Commission was just starting this work and had questions to clarify and define the mechanism, procedures and criteria for certification. Six years have elapsed since that meeting, and during this period both the eradication programme and certification activities have matured through collaborative and intensified efforts to reach the highest quality level possible, enabling the Region to be declared free of poliomyelitis!

Since the Global Poliomyelitis Eradication Initiative was launched in 1988, two WHO regions have been certified poliomyelitis-free: the WHO Region of the Americas in 1994 and the WHO Western Pacific Region in 2000. Poliomyelitis cases have dropped from an estimated 350 000 in 125 countries in 1988 to just 480 reported cases in only 10 poliomyelitis-endemic countries in 2001.

Success, which we are celebrating today, is the result of a great collaborative effort with all 51 Member States, the hard work of public health workers in the field, and a solid international partnership in coordination with WHO, particularly with Rotary International, CDC Atlanta, UNICEF and USAID. Several donor nations of the Region, as well as charities, have contributed substantially. We are celebrating a truly international collaboration for the benefit of our children in all countries of our Region!

However, we cannot rest. Activities must continue to sustain high levels of routine immunization coverage, with supplementary immunization activities where needed, and to sustain high-quality laboratory-based surveillance and containment of polioviruses, until global eradication has been achieved. So, polio-eradication work is not over till it's over globally! And it will continue in our Region: as you know, the Regional Office has received firm commitments from all ministries of health on maintaining immunization and surveillance.

It is a great pleasure for me to congratulate you all on this tremendous achievement, not only for the European Region but also for the global efforts to eradicate poliomyelitis. It is a great pleasure for me to open this historic meeting.

Statement by Sir Joseph Smith, Chairman, Regional Certification Commission

The WHO European Region stretches from Greenland in the north-west to the limits of Russia in the east, and from the northern shores of Europe and Asia to the Greek island of Crete in the south. Its 873 million people live in 51 different countries, which include Turkey, Israel and the central Asian republics. To certify as polio-free this large, disparate region requires sound evidence and careful scientific judgement.

The Global Certification Commission (GCC) set out the basic principles and criteria for certification in 1995. The GCC later concluded that the term "eradication" should apply only to global certification: regional commissions should initially certify "interruption of the transmission of indigenous wild poliovirus", a status that in brief may be termed "polio-free". Guided by the GCC recommendations, including the need, prior to certification, for a polio-free safety-margin of 3 years careful surveillance and testing to exclude any possible silent transmission, the European Regional Commission (RCC) first met in 1996 to address its task.

Certification only becomes possible as a result of successful eradication. Throughout its work, the Commission has kept in close touch with the intensive immunization campaigns that have led to the cessation of polio transmission in the Region. These include not only national programmes, but also the mass-vaccinations of the "MECACAR" and "MECACAR-plus" operations, coordinated between up to 18 collaborating countries of the WHO European Region and WHO Eastern Mediterranean Region each year, from 1995 to the present.

Staging by epidemiological groups of countries

The Commission agreed that it would be essential to address its task in a structured way. At its first meeting in 1996 the RCC therefore accepted a WHO proposal to review countries in seven successive epidemiological groups. The first four groups comprised the western, nordic-Baltic and central and southern countries thought to have been free of polio for more than 8 years. Next to be reviewed would be the central/eastern, recently endemic countries believed to have brought polio under control between 3 and 8 years earlier. The sixth "MECACAR" group in the eastern part of the Region, and the seventh, the Russian Federation, had all experienced endemic polio within the previous 3 years, and all took part in the "MECACAR" operations.

Certification evidence

The Commission's judgment on whether a country has achieved freedom from wild poliovirus transmission must be founded on the examination of information provided by the country itself, and particularly its data on poliovirus surveillance, backed up by WHO assessment missions.

Acute flaccid paralysis (AFP) surveillance

The WHO Region of the Americas led the way in polio eradication and was certified as polio-free in 1994. In the countries of South America, AFP surveillance had been shown to be a reliable means of demonstrating the absence of wild virus transmission. It requires the detection of cases of AFP in children, whose stool samples must be tested for poliovirus in the early period of their illness. It had proved difficult, however, to set up AFP surveillance in North America, where polio had not been seen

for many years. This also proved to be the case in many western European countries, whose paediatricians saw little need to prove what they perceived as the self-evident absence of polio. Consequently, the RCC and WHO gave much attention to the value of other evidence.

Although AFP surveillance has been the single most important tool, the Commission has employed a range of additional information including: national health statistics; enterovirus surveillance; environmental surveillance; laboratory tests for poliovirus; risk groups; laboratory containment; and Manuals of Operations.

National health statistics

National mortality and morbidity statistics, polio vaccination rates throughout the country and reported poliomyelitis cases year-by-year were documented, together with the numbers of doctors per head of population. UN statistical data and a WHO Report in 2000 on health services in the Region were also taken into account. These data were used collectively as indicators of the stability and accessibility of health services, and indirectly as indicators of the likelihood that children with acute paralysis would, in practice, be seen by doctors and appropriately investigated, diagnosed and treated.

Enterovirus surveillance

Enterovirus surveillance tests for poliovirus excretion by infected persons, by means of planned stool surveys or the use of routine diagnostic laboratory tests. The value of such evidence depends on the ages, numbers and national distribution of the populations tested, and the nature of the illnesses of the tested patients.

Environmental surveillance

The culture of sewage samples for poliovirus is an indirect means of detecting poliovirus excretion in the population sample from which the sewage is derived. This procedure, termed environmental surveillance, has been developed and applied in several countries and has proved of value, for example, in Finland and in the Netherlands, to monitor localities where groups who refuse vaccination for religious reasons live. The method has also been useful elsewhere, such as monitoring refugee camps.

Laboratory tests for poliovirus

These tests underpin surveillance and it is therefore essential to ensure that they are done reliably. WHO therefore established a regional network of accredited reference laboratories that are required to meet appropriate performance standards and regularly to pass tests on "blind" samples to ensure the validity of their results.

Risk groups

Data on vaccination and surveillance of groups thought to be at a heightened risk of harbouring wild polioviruses are particularly important. These groups include Roma, who often move across national borders and can be difficult to reach for vaccination or surveillance. Refugees and internally displaced persons are also at risk, and unfortunately there have been many in the Region's conflict areas. Asylum-seekers, who may come from polio-endemic regions, and people living in areas bordering endemic countries, are also regarded as risk groups.

Laboratory containment

Freedom from polio cannot be assured if there is a risk that wild viruses may escape from laboratories. A phased "containment" process has therefore been developed by WHO, which first involves

the preparation of national inventories of laboratories that may hold stored samples containing wild viruses. Documentation of the completion or near completion of this first phase of the process is a requirement for Regional certification.

Manual of Operations

The Commission agreed a format of tables, information and comment in which the national datasets should be provided, set out in a "Manual of Operations". The use of this uniform documentation format facilitated interpretation and analysis of data and helped in identifying where information was missing.

The certification process

The health minister of each country was asked by the WHO Regional Director to establish an independent National Certification Committee (NCC), whose members should be senior medical scientists not directly involved with eradication activities. The NCC's task would be to carefully assess, and when appropriate approve, information collected by national staff and documented in the completed "Manual of Operations" for submission to the Commission for review. In this way, NCCs provide, in effect, an independent judgement of the polio status of their own countries.

Through successive meetings, held in different countries of the Region, the Commission reviewed the national documentation sets. Prior to meetings, all members studied the documentation and, in addition, two members took a lead assessment role for each country. WHO officers also made an independent evaluation. The Commission then met to discuss and agree preliminary conclusions, before the NCC chairpersons gave spoken presentations. The national representatives could then be questioned in order to clarify uncertainties and, after further deliberation *in camera,* the RCC's conclusions were presented to the National Certification Committees.

Evening plenary session, Ny Carlsberg Glyptotek, 21 June 2002. Participants listening to Sir Joseph Smith's presentation.

In due course, NCCs provided updated information, including the responses made to the comments and recommendations of the RCC reviews. This iterative process was supplemented by visits to selected key areas by Commission members, including parts of the Region with recent experience of polio, such as Albania, Azerbaijan, Bulgaria, Georgia, the Kosovo area, Uzbekistan and Turkey. The RCC's work was further supported by the reports of technical visits to countries made by WHO staff and consultant experts to assess the quality of surveillance.

Prior to Regional certification, each NCC was asked to sign a statement of the reasons why they believed their country to have been free from indigenous wild poliovirus transmission in the previous 3 years. Such a formal statement, signed by senior professionals who know their country well, has been valued by the RCC.

WHO Eastern Mediterranean Region (EMR)

EMR has made great progress in polio eradication despite marked socioeconomic difficulties in several countries, as well as protracted conflicts. Nevertheless, in 2002 endemic polio still continues in some parts of the EMR, and people moving illegally across borders might carry wild poliovirus into countries of the European Region. The two WHO regions have therefore collaborated together, notably in the "MECACAR" operations. Members of the two commissions have attended each other's meetings and a report on EMR has featured in most RCC meetings.

Wild poliovirus importation

Until wild poliovirus has been eradicated globally, recently infected travellers from endemic countries may carry the virus to other parts of the world. Consequent outbreaks among poorly immunized groups must be prevented by maintaining high immunization rates and by surveillance in order to detect and respond to importations quickly. Provided there is convincing evidence that transmission is rapidly stopped, the Global Commission has concluded that importation events need not affect the status of a region already certified by its Commission.

The RCC evaluated reports on the two importation events identified in the Region in the 3-year period following the detection of the last case of indigenous infection in Turkey in November 1998. The first importation event, in March 2000, was among the Roma people of Bulgaria, wild virus being cultured from two affected children and a further two who remained well. The second event was a single isolate from a child with meningoencephalitis in Georgia in September 2001. In both instances, molecular genotyping showed the strains to have originated in the Indian subcontinent. The two countries undertook appropriate investigations and vigorous immunization campaigns, which also took place in neighbouring countries, with special attention to Roma in the case of the Bulgarian episode. Extensive sampling subsequently found no evidence of continued transmission.

Certification

The stage was finally reached in 2001 when no indigenous wild poliovirus infection had been reported in the Region for approaching 3 years and certification might soon become feasible. The Commission decided to undertake this task in two stages, and to address not only the evidence for freedom from polio and progress in laboratory containment, but also the capacity of countries to identify and respond to virus importation, and their plans for sustaining polio control after certification.
A penultimate review was made, for which information in an approved format was requested from all countries. Commission members studied these documents and then met to discuss them at its fourteenth meeting in March 2002. The RCC's assessment was greatly helped by a comprehensive evaluation prepared by the WHO Regional Office.

Presentations by the NCCs of 16 key countries were also heard at this meeting. These were selected for various reasons, such as a need to clarify the extent to which surveillance had recovered after periods of conflict, or to evaluate further the progress made in containment. Of particular importance were presentations from Bulgaria and Georgia on their recent importations of wild virus from the Indian subcontinent.

The RCC concluded in March 2002 that it probably could in June 2002 certify the region as polio-free provided certain missing items of information were supplied and found to be satisfactory, and provided no new imported virus transmission episodes occurred before then. The Commission emphasized that, until wild virus was eradicated globally, polio outbreaks due to virus importation remained possible, especially among at-risk groups. It was therefore essential that all countries sustained high levels of polio immunization and surveillance.

In the event, at its fifteenth meeting on 21 June 2002, after consideration of the further information provided, including reports of assessment missions to key countries by Commission members and WHO teams, the Regional Commission declared that indigenous wild poliovirus transmission had been interrupted in the WHO European Region, and the Region was declared polio-free.

The future

Immunization and surveillance

In view of the risk from imported wild viruses, the WHO Regional Committee for Europe adopted in 2000 a resolution to maintain high levels of polio immunization and surveillance until global eradication has been achieved. Underlining the continuing importance of this resolution, the Regional Director in 2002 asked all ministers of health to provide information on their future plans for maintaining polio immunization and surveillance, including an action plan for dealing with any importation of wild virus.

Containment

The WHO Global Action Plan on Laboratory Containment proceeds in phases. For certification of the Region, countries addressed the first, laboratory inventory phase of this action plan. Progress through the subsequent phases now becomes necessary. By the time of global certification, all wild poliovirus samples must have been destroyed or confined in biosafety level 3 containment conditions.

Annual Updates

The RCC intends to meet annually in the future to consider concise updates from each NCC. These will include ongoing surveillance and immunization data, as well as progress reports on containment, which will also be monitored by means of validation exercises and consultant reports on visits to countries.

Acknowledgements

The achievement of a polio-free European Region is due to the dedicated efforts of the health-care and field workers of the countries of the Region. Their work has been supported by WHO and its partners and by the Region's health ministers – indeed, high-level political support in every country remains vital. The work went on despite economic difficulties and conflicts, sometimes under dangerous conditions. As well as striving to ensure that every child was fully immunized, field and laboratory workers had also to maintain high-quality surveillance, which is not only essential for certification but can also identify areas needing special attention. It is the success of this human effort and commitment throughout the Region that has enabled the Commission to declare that transmis-

sion of indigenous wild poliovirus has been interrupted throughout the Region.

The Commission greatly appreciates the work of the chairpersons and members of the NCCs of the Region's 51 countries, who have invariably answered the Commission's questions fully and openly, and responded willingly to recommendations.

The RCC would like to record thanks to its Secretary, Dr David Salisbury, both for the experience and expertise he brought to our assessments and for his excellent work as rapporteur for the majority of our meetings. We also thank Dr Nikolaj Chaika and Dr Ray Sanders, who were able rapporteurs for the remaining meetings.

There are many others to whom thanks are due, including the experts who have advised and helped the RCC, and the WHO field officers who work in the countries of the Region. WHO's partners in polio eradication – Rotary International, CDC Atlanta, UNICEF and USAID – have not only been major participants in the eradication programme, but their representatives have also been valued contributors to our meetings.

The RCC especially appreciates the work of the members of the WHO polio team in the Regional Office, Copenhagen. It is a particular pleasure to recognize the outstanding leadership of Dr George Oblapenko, and the fine contributions of his senior colleagues, Dr Galina Lipskaya and Dr Steven Wassilak. Among those upon whose work the RCC depends are the secretarial staff members, led by Ms Johanna Kehler and Ms Tatiana Michaelson, whose unfailing and ever helpful efforts have been invaluable.

Statement by Mr Rudolf Horndler, representative of Rotary International

Thank you for that kind introduction. As a European citizen, I am very proud, happy and relieved to be able to witness this historic event. But speaking on behalf of the more than 1.2 million members of Rotary in 163 countries and especially on behalf of the more than 250 000 European Rotarians, I can also express our happiness and pride in having reached this historic milestone and I can assure you that we will do everything in our power to ensure that nothing derails our dream of a polio-free world. I would like to invite you to follow me on a short review of Rotary's involvement in our fight against Polio.

In 1979, Rotarians in the Philippines, with the help of The Rotary Foundation, carried out the first nationwide immunization. Other countries followed. Encouraged by the success of these national immunization campaigns, Rotary International in 1985 started its first-ever, worldwide humanitarian activity: the fight against polio.

Contrary to a widely held belief, even among Rotarians, 16 years ago, when Rotary International first turned its attention and efforts to this crippling disease, Rotary did not intend, plan or promise to eradicate polio. All we planned and promised in 1985 was to raise enough money, then calculated at US$ 120 million, to provide free, oral poliovirus vaccine to immunize the children of the world by 2005, Rotary's 100th anniversary.

But instead of the goal of US$ 120 million, more than US$ 220 million was reached in donations and pledges, where European countries were among the top achievers. Through additional donations and interest, by the year 2005, Rotary's financial contribution to the global fight against Polio from this fund will have reached US$ 500 million. And besides the money, Rotary International could also rely on the volunteer effort of its huge membership and others they could mobilize, helping especially with social mobilization and the logistics of the immunization campaign.

Therefore, when in May 1988 the World Health Assembly committed its Member States and WHO to the global eradication of polio, Rotary International was ready and willing to enter into a broad coalition of partners to achieve this high goal, spearheaded by WHO, Rotary International, CDC and UNICEF and joined by the health authorities of all polio-endemic countries. This was the first immediately highly successful example of public and private sector cooperation.

Rotary's primary roles within the coalition were to provide vaccines, mobilize volunteers to help in immunization campaigns, coordinate efforts among coalition partners, advocate on behalf of polio eradication and support laboratory networks, surveillance and social mobilization.

Let me give you some examples of specific Rotary involvement in our joint fight against polio: During one weekend of 10 December 2000, 2.5 million volunteers immunized 152 million children all over India, and tens of thousands of Indian Rotarians, their friends and families were among the volunteers. And, an example from Europe: In the early 1990s in Romania, despite the government's claim of full immunization coverage, polio occurred again and again in certain areas. We found out that the Roma minority hid their children from immunization because they were afraid that the government tried to sterilize them. A Rotary task force, led by my unforgotten friend Mario Grassi, succeeded to gain the confidence of the leaders of the Roma minority and for the first time all Roma children were vaccinated and that was the end of polio in Romania. Later on, we had similar success in convincing doubtful and reluctant minority parents in Bulgaria.

A very special challenge arose when the Kosovo Albanians refused vaccination by the Serb health authorities. Again, Rotarians could convince them of the benefits of the immunization. Similar challenges arose and were also overcome in other central/eastern European countries.

The WHO European Region consists not only of geographic Europe, but, since the former Soviet Union belonged to it as a whole, the Region now extends not only over all of the Russian Federation, but also the Newly Independent States. It therefore extends from the Atlantic to the Pacific Ocean, from the Polar Sea to the Himalayas and the Black Sea, and shares borders with several high-risk countries like Afghanistan, Iran, Iraq and Pakistan, belonging to the WHO Eastern Mediterranean Region.

But not until 1995 were coordinated immunization activities between these two separate WHO regions developed, and with the decisive help of my predecessor as Chairman of the European Regional PolioPlus Committee, past Rotary International Director, Mario Grassi, Operation MECACAR was started.

Operation MECACAR stands for the coordinated poliomyelitis eradication efforts in Mediterranean, Caucasus and central Asian republics. This is a crucial area for polio eradication, because it contains some of the last countries where wild poliovirus is still circulating.

Without Operation MECACAR, we would probably not be able to celebrate our big step forward today. It is a pity that my good friend Mario Grassi, who worked so hard to achieve this success, could not live to join in this celebration.

Yet, in spite of this success and today's extraordinary achievement, our greatest challenge in the fight against polio worldwide is a funding gap of US$ 275 million. This could threaten our ability to vaccinate every child by 2005.

Eradicating polio is Rotary's top priority. To help fill the US$ 275 million funding gap, Rotary will launch its second membership fundraising drive with the goal of raising US$ 80 million between July 2002 and July 2003.

Rotary is also continuing

In addition, Rotary is continuing its efforts to convince national governments and the private sector to invest in a polio-free world. Special public and private sector advocacy task forces of Rotary have been, and still are, active and also quite successful. Donor governments have already contributed more than US$ 1 billion to polio eradication. These donor governments include the Netherlands, with the highest donations in Europe, and also our host country Denmark and my own country Germany.

Already, Rotary is quite often asked, "What comes after polio?". To this there is currently only one possible answer: The question of whether Rotary will ever join a new health initiative will have to be decided upon the completion of polio eradication. Until we finish this job, we cannot afford to divert our attention or dilute our resources, but have to concentrate fully and exclusively on this our highest and most ambitious goal ever: **A WORLD FREE OF POLIO.**

Statement by Mr Philip O'Brien, Regional Director for Europe, UNICEF

I am delighted, on behalf of UNICEF, to participate in today's historic announcement. The securing of the European Region as polio free is *the* major public health success story for the children of our Region and a giant step toward global achievement of polio eradication. This goal was re-affirmed at the recent UN Special Session for Children: *A World Fit for Children*, at which the world's nations re-committed to achieving the global eradication of poliomyelitis by the end of 2005.

The certification of Europe as polio free is a testament to strong partnerships, which over the last 14 years have worked so tremendously hard across the 51 countries of the Region to reach this milestone. It is a partnership that enabled us to support the routine vaccination of children, a partnership that allowed us to run successful National Immunization Days, but also one which has helped to provide vaccination services in conflict zones, difficult territories and to carry out ambitious cross-border immunization activities. Great progress has been made in immunizing the Region's most hard-to-reach children: minority children, children isolated by conflict, as well as refugee and internally displaced children.

UNICEF echoes the tributes we have heard today to the organiszations, governments and individuals that have collectively created a polio-free Europe. This recognition is well deserved, and we in UNICEF are pleased that we have been able to play a part in this Regional success as well as the global campaign.

Last year, with funds from Rotary International, the American Government, the US Centers for Disease Control and Prevention, and other donors, we were able to procure and deliver one billion doses of oral polio vaccine (OPV). In the past 3 years, UNICEF procured and delivered some 177 million doses of OPV, worth over US$ 10 million, to countries in the WHO European Region. UNICEF country offices have worked with a range of partners to secure the cold chain, mobilize communities and advocate with political leaders to ensure polio eradication activities.

We must not be complacent. In 2001, we had polio cases in Bulgaria and Georgia. In both instances, children of the minority Roma community were infected with poliovirus of Indian origin. The infected children had not been vaccinated. We need to **attain** and **maintain** high levels of **routine** immunization coverage, including against polio, doing everything in our power to protect *all* children. That we can do this together, I do not doubt. Witness the excellence of the work WHO has done and continues to do in support of improved immunization and surveillance systems.

Therefore, our message today is clear. **Together** we must protect this historic achievement for Europe's children. **Together** we need to ensure that the rights of *all* children to protection from disease are secured. This message is one that the countries of the Region endorsed during the May 2001 Berlin Conference on Children in Europe and Central Asia. That conference brought together, for the first time, all the countries of Europe and central Asia, to discuss children's issues: demonstrating a combination of solidarity and self-interest in a Region whose walls and barriers are falling away and whose borders are increasingly porous, including to the threat of disease.

Self-interest and moral imperative come together to prevent the importation of wild poliovirus to help other countries to become and remain polio free. Support from the European Union and other industrialized nations remains essential in the coming years, as is support from the private sector for the continued production of the vaccine.

Statement by Dr David Fleming, Acting Director, US Centers for Disease Control and Prevention, Atlanta

It is my great honour and a distinct pleasure to represent the Centers for Disease Control and Prevention (CDC), and the Government of the United States of America to celebrate the heroic work in this region of eradicating polio forever from the face of the earth. This work has been carried out by the 51 Member States of the WHO European Region, under the leadership of the World Health Organization.

It is indeed an historic accomplishment for which all of you who have laboured so long and hard should be proud. I believe the initiative to eradicate polio can serve as a model for future public health programs in the European Region and elsewhere, demonstrating what can be achieved when there is vision, leadership and a common commitment at all levels.

The story of polio eradication in this Region is an extraordinary one. The groundwork for the initiative was laid in 1995, when the idea came into being of creating a coordinated action involving some 18 countries in this Region and in the WHO Eastern Mediterranean Region to stamp out the last vestiges of polio. This new initiative, called Operation MECACAR, aimed to reach every child with oral polio vaccine in synchronized National Immunization Days to stop poliovirus transmission across major portions of the continents of Europe and Asia. The effort has been so successful that the lessons learned, in particular the collaboration among national governments united in a common cause, have influenced the approach to polio eradication worldwide.

Poliomyelitis eradication is the model for building close linkages between modern laboratory science and public health implementation on a global scale. The challenge before us is to translate and extend all of the lessons in cooperation learned from Operation MECACAR into cooperation in other areas. We are also challenged to complete the final phase of polio eradication and certification worldwide, thus preserving forever the legacy of Operation MECACAR.

CDC takes this opportunity to thank the member countries of the European Region, WHO, Rotary International, UNICEF, USAID and all the other partners involved in this initiative, for the opportunity CDC has had to participate in, contribute to and learn from this historic partnership.

I would like to end my remarks on a personal note. The staff at CDC will always carry with us the good memories of the many friends and colleagues in the European Region with whom we have had the pleasure of working. Many of you are here today, so I take this opportunity to salute you for your historic work on this triumphant occasion. The experience CDC has had as a partner organization deeply involved in the work of polio eradication, both in this Region and globally, gives us great hope for the future that international cooperation, like the example of polio eradication, can solve the world's greatest problems. With the example of partnerships like this one, we can do it together.

Statement by Ms Ellyn Ogden, Representative of the US Agency for International Development

On behalf of USAID Director Andrew Natsios, I would like to thank the Certification Commission for inviting USAID to participate in this auspicious event. I congratulate all Member States of the WHO European Region on this occasion for achieving your goal of certification, as well as your progress in other aspects of your immunization programmes. We are very proud of the hard work done by vaccinators, volunteers, ministries of health and all the organizations working in partnership to achieve this goal, including Rotary International.

The leadership provided by WHO in both Europe and the Middle East has been strong and steady, including the unprecedented MECACAR collaboration. This has helped to meet day-to-day challenges in a transparent and professional way, and overcome many problems as they have arisen. I want to give special thanks to Dr George Oblapenko – it is a joy and a privilege to work with him. USAID recognizes the great dedication of all WHO Regional Office for Europe staff to assure that the integrity of polio eradication data is paramount. This is greatly valued by all donor agencies and sets a high standard for the programme.

Perhaps more than any other public health programme, polio eradication reflects our desire as public health professionals and humanitarians to leave no child behind. Polio-eradication activities have opened our eyes to marginalized groups and un-reached children: those most vulnerable to disease and disability. We must not forget them, or the other health conditions they confront. We can use polio eradication as a foundation for strengthening all health services, and as a bridge to peace.

Although we are here to celebrate the European Region's polio-free status, we must be mindful of just how fragile that status is. There is still a long road ahead before we can ultimately stop vaccination for polio altogether, and *maintaining* polio-free status until that day may be more difficult than the interruption of wild virus transmission. In the absence of disease, it becomes harder to keep surveillance high and to detect low levels of transmission. In addition, finishing containment is obviously a priority.

Europe is not the same as when we started polio eradication in 1988, and it continues to evolve. We must be prepared to meet the public health challenges of the changing environment. Population movements and political crises warrant ongoing attention and revisions to plans as necessary. We must continue to monitor routine immunization coverage at the subnational level in the foreseeable future, with particular attention to high-risk groups, which may require supplemental immunizations. In this, there is a great capacity for the European Region to assist the rest of the world, which I believe is underrecognized.

USAID supports the fundamental right of every child to be fully vaccinated before their first birthday, but today, vaccine supply is in a precarious state. We must explore new strategies for assuring that the world's children have access to these, the most cost-effective interventions in the public health arsenal.

While the global program turns its attention to the remaining polio-endemic countries and regions, the European Region will undoubtedly slip out of the spotlight it so rightly deserves today. Post-certification activities will require ongoing support of ministries of health as well as other technical and financial resources. The financial, technical and human resources of the European Region must remain in global polio eradication budgets and fundraising efforts. We run the risk that, now that polio is gone

from the region, donors and partners will wash their hands and walk away from Europe, assuming that the job is done. Nothing could be further from the truth. In order to protect our estimated $US 4 billion investment in polio eradication worldwide, it is incumbent on all of us to remain engaged and, indeed, to identify new partners. There is also an opportunity to build on the skills and capacity that is the hallmark of the polio programme, to strengthen routine immunization and surveillance for other diseases of public health importance. We would like to see broader ownership of these important disease-control initiatives, including all donors in the Region.

USAID hopes you share this vision of the future and that all countries in the Region will rise to meet the challenges of the post-certification era. We believe our money has been very well spent in this Region and that it has been very well utilized for the best of all goals: the prevention of disability and death of children. We also know that the job is not over until it's over – the American government remains committed to polio eradication through USAID and CDC. USAID continues to actively support the global polio-eradication programme. Our investment of over $US 240 million since 1988 continues to support supplemental immunization campaigns, the laboratory network, surveillance, communications and research for polio eradication. In the past year, we have expanded support to Afghanistan, Sudan and Somalia, in addition to maintaining our financial and technical support to other priority countries in Africa, South Asia and the Near East. Most of our aid is channelled through partner agencies such as WHO, UNICEF, the Core Group of NGOs and other USAID technical projects, such as BASICS.

But apart from the technical aspects of polio eradication, what is remarkable to me is how so many individual lives are changed in unforeseeable ways by this dreadful virus. Who could have known how many lives would be touched by the virus that passed – child to child – from India to Bulgaria? Why were some children paralysed and others not? These are some of the mysteries of life.

As a child, my grandfather told me that I should be proud that I am the descendent of Roma princes and princesses. I don't know if this is true or just family folklore, but I do know that whether my children are Roma or not, on whichever shore or in whichever country they live, they now enjoy a world one step closer to being polio-free forever, because of your efforts. You, the volunteers and public health workers in your countries, are the real heroes of this story. I am sure that if my children, or children from your own countries, were here today, they would thank you.

Again, we extend our heartfelt congratulations to you all.

Statement by Dr Daniel Tarantola, Director, Department of Vaccines and Biologicals, WHO, Geneva

I am here today to speak from the perspective of the Global Polio Eradication Initiative, and I would like to begin by expressing my thanks to you, the European Region and congratulations on this monumental achievement. The European Region has made a great contribution to the global effort to eradicate poliomyelitis. You have done your job very neatly and you deserve great thanks from the regions where polio is still a reality and where the fight goes on.

The Global Initiative also thanks donors in the European Region for the support you have given to polio-eradication programmes in economically deprived countries of polio-endemic regions. These countries continue to face the great costs of polio eradication, sometimes including the very lives of health-care workers as they reach out to children who need to be immunized.

We still have a long way to go. Until *global* eradication of poliomyelitis has been certified, we need to continue to immunize every child. We need to maintain the surveillance system. We need to contain the virus so that it remains safely stored in secure laboratories and cannot spread again. To do this we need people, like the many thousands of health-care workers around the world who have been trained, mobilized and inspired by the polio-eradication effort. And we also need people like the Rotary and Red Cross volunteers who, in one campaign in India alone, vaccinated 125 million children in just a few days. We need people and we need money, too. The expenses incurred in the Global Polio Eradication Initiative are high. For this year alone, there is a funding gap of US$ 60 million. This sounds enormous, but it is small compared with the long-term benefits of the eradication campaign, a campaign that continues to contribute to much more than the reduction of death and disability caused by one disease.

In our global vision of polio eradication, the monumental achievement we are celebrating today is but one step into the future of public health. The Polio Eradication Initiative will leave behind a great legacy, beginning with its strengthening of routine health services. Stronger routine health services can strengthen human development, and stronger human development can help alleviate poverty, which will further reduce human illness and suffering. From the global perspective, therefore, we are celebrating something even more wonderful than Polio-Free Europe today. We are celebrating a programme that has brought together health-care workers, volunteers, donors and others into a partnership for a greater future for all of our children.

Statement by Dr George Oblapenko, Medical Officer, WHO Regional Office for Europe

I could not sleep last night after I learned the Commission would declare the Region poliomyelitis-free. I was wondering how different it is to live in Polio-Free Europe? I must admit that I did not feel any different, and I realized that it will take some time for us to truly understand the meaning of this event, the meaning of the words: POLIO-FREE EUROPE. This is a great day for all of us!

The road to poliomyelitis-free Europe was long and hard, and there are many people who deserve great thanks. I would like to begin by thanking everyone who contributed their skills, expertise and souls to our common goal: the eradication of poliomyelitis in the European Region. We can and must be proud of this great success. The Certification of Europe as polio-free is a wonderful example of partnership – successful cooperation of many different countries, organizations, institutions and people of good will. It is an excellent example of successful unification in order to make a new generation – the children of the 21st century – more healthy and wealthy!

Thanks to all of us!

There are many individuals who must get special thanks for their extraordinary contribution to this success. I would like to begin by thanking **Dr Ralph Henderson,** Director of the WHO Expanded Programme on Immunization, who first presented the case for polio eradication to the World Health Assembly, which endorsed the Global Polio Eradication Initiative on 13 May 1988, and called all countries to cooperate in this humanitarian work.

The key to the success of polio eradication in the European Region was Operation MECACAR, which was a unique public health operation. Eighteen countries of the European and Eastern Mediterranean Regions joined forces and coordinated polio-eradication activities between 1995 and 2001. It was hard work to deliver polio vaccines to children in the most remote corners of these regions, but it was a success and high levels of immunization coverage and surveillance were maintained. Operation MECACAR was not just the cooperative effort of governments and ministries; it was the extraordinary dedication and hard work of many people. I recall an encounter back in the spring of 1995, in the first round of Operation MECACAR. It was in Kazakhstan, close to the border with China. The local district health authority, the Chief Oblast Medical Officer and I were going to assess the quality of National Immunization Day (NID) activities in a remote settlement. On our way, we met a horseman – he was an ophthalmologist returning from that remote village, where he had just vaccinated children. His horse carried a bucket with ice with OPV in it. I asked him, "How do you feel? You are an ophthalmologist … such a muddy road … such a long way to go!" and he responded, "I feel excellent! Just excellent indeed! Do you know that today, 18 countries of this Region have joined our efforts to immunize children and to eradicate polio. And be sure, we will do the job!" And they truly have done a great job. So we send our great and most cordial thanks to all the health workers who fought hard for this victory over this ancient disease.

The WHO Regional Office for Europe provided leadership and coordination for the programme, but the "Polio Team" could not have worked so effectively without strong support from top-level management of the Regional Office. So, I would like to express our great, deep and cordial thanks to **Dr Jo Asvall**, the Regional Director during 1990–2000, who strongly supported the programme, especially in the early stages of Operation MECACAR, and during the difficult Albanian polio outbreak of 1996. I

also would like to express our great thanks and appreciation to **Dr Marc Danzon,** the current Regional Director, who has continued to actively and strongly support this important programme, dedicating his time, energy and full trust.

And, as we give thanks and recognition on this very bright and beautiful day, I would like to recall our partners and friends who have departed and could not celebrate with us today:

- **Dr Mario Grassi,** the first chairperson of Rotary's European PolioPlus Committee. Mario actively promoted polio eradication and supported implementation of appropriate strategies within the Region, particularly in the former Yugoslavia.
- **Dr Bruno Martain** was the UNICEF Coordinator for Immunizations, including polio eradication, in our Region during our most difficult years, 1993–1997. Bruno was particularly effective in the implementation Operation MECACAR in Caucasian republics.
- **Dr Henrik Zoffmann,** former director of WHO's Expanded Programme for Immunizations, who provided strong support to the European Regional programme.
- **Dr Ko Keja** from the core of the Expanded Programme on Immunization (EPI), WHO headquarters, who practically initiated polio eradication efforts in Turkey.
- **Dr Ivan Masar,** who was coordinator of EPI in Slovakia. Ivan contributed a lot to the development of the Regional immunization and polio-eradication programmes; he was the chairperson of the European Advisory Group and we have gained from his epidemiological expertise and public health experience.
- I particularly would like to recall the name of **Dr Mirzobalie Jacheev,** Chief Medical Officer of Vachshskiy district, in Tajikistan. He was assessing the quality of NIDs in 1995, during the civil war in Tajikistan. UNICEF was able to stop fighting for a week of tranquillity. However, during the field visit, an armed group from Afghani territory targeted Dr Jacheev's car and Dr Jacheev was killed.

The Polio Team thanks and salutes all of our friends and colleagues for the roles they have played in this great achievement. We know quite well that one of most important strategies in polio- eradication efforts is high-quality surveillance, and in Europe, the Regional Polio Laboratory Network has been essential in assuring quality polio surveillance. I would like to express great cordial thanks to the virologists and staff of all of the laboratories that have played such a key role in our success. Laboratory staff have worked very hard to provide the programme with investigation results in a timely manner, and very often worked through nights and weekends. It is also very important to recognize that the European Polio LabNet is highly professional and reliable, thanks to the hard work of **Dr Galina Lipskaya,** the Regional Coordinator, who is both a great virologist and manager.

Partnership! It would be difficult to over-estimate the role of partnership in this anti-polio coalition. *Trust*, *respect*, *openness* and *readiness to be coordinated* are the main characters of this excellent partnership. We are all different – that is why we are strong: no *one* of us is as strong as *all* of us. I am sure that it is only thanks to this strong and effective partnership we have been able to clean poliovirus out of Europe. I remember a crisis during an early morning meeting in January 1995, when we were preparing Operation MECACAR. All of the partner countries agreed to do synchronized NIDs, but there were no funds for purchasing vaccine – by noon, Rotary PolioPlus announced that Rotary had given US$ 5 million to UNICEF for OPV, and **Mr Kwon,** of the UNICEF Supply Division in Copenhagen was already calculating cubic centimetres of cargo space in order to assure timeliness of vaccine delivery! I also remember how, in difficult situations (and there were plenty of such moments), **Dr Steve Cochi** and the Polio Team at CDC/Atlanta gave us the support we needed.

In the spirit of this great partnership, I feel strongly that I have to name some of our friends who were not able to attend this historic ceremony, colleagues who worked all these years with us: **Dr Nick Ward,** the first Coordinator of the Global Polio Eradication Initiative; **Dr Mark Pallansch** and **Dr Olen Kew,** virologists from the CDC/Atlanta; **Mr Bob Keegan,** Public Health Manager, CDC/Atlanta; **Dr Rudi Tangermann,** WHO headquarters; **Dr Mary Agocs,** CDC/Atlanta and **Dr Bruce Aylward,** Coordinator of the Global Polio Eradication Initiative, WHO headquarters.

I do not have the words to express my great appreciation and my deep thanks for the Regional Polio Team. For many years, this team has worked hard and under great pressure, to make the dream of a polio-free Europe a reality. I recall many midnight work sessions to finalize emergency operations documents and how, during the 1996 polio outbreak in Albania, **Dr Steve Wassilak** would frequently send e-mails at three in the morning. The spirit of the European Regional Polio Team was friendly, yet highly motivated and target-oriented – just what was needed to get the job done! So, I would like to use this unique chance to cordially thank the WHO Regional Office Polio Team for the hard work and constant support you gave me.

Finally, it is a great pleasure to thank the European Regional Certification Commission. The Certification Commission is highly competent and since our first meeting, in March 1996, has developed an elegant style of working in a spirit of trust, balanced with critical scientific inquiry.

So, let us enjoy this celebration! We all worked hard and we can be proud. However, we need to sustain our victory until all transmission of polio has been stopped, worldwide, and every poliovirus has been contained. Wild polioviruses are still around the corner and high levels of routine immunization coverage and high-quality AFP surveillance are the key elements in sustaining our polio-free status. ***It's not over until it's over!***

The European Regional Certification Commission

The independent panel of international public health experts that comprises the Regional Certification Commission has been engaged in the formal poliomyelitis-free certification process in Europe since 1996: the first meeting of the European Commission for the Certification of Eradication of Poliomyelitis was held at the International Children's Centre, Paris, 7–8 March 1996. The Regional Director of the WHO European Region appointed the Regional Commission members. The members do not have direct responsibility for polio eradication activities in their countries and have no conflict of interest in serving the Regional Certification Commission.

From left to right: Dr George F. Drejer; Professor Sergey G. Drozdov, Professor Burghard Stück; Professor Istvan Domok; Professor Margareta Böttiger; Sir Joseph Smith; Dr Walter R. Dowdle and Dr Donato Greco.

The following terms of reference were approved:

- to validate the plan of action and timetable for certification for polio eradication in the European Region;
- to ratify or change the proposed quality of surveillance for certification in the non-endemic, recently endemic and endemic countries of the Region;
- to state the documentation that will be needed from each country of the Region to certify eradication;
- to approve and update as necessary the protocol for collection of national immunization and surveillance data for certification and polio eradication;
- to develop, if needed, innovative methods for verifying polio eradication in non-endemic countries or "high-risk" areas in recently endemic and endemic countries, where the established surveillance criteria for certification have not been met;
- to conduct site visits, if required, to review or verify the status of polio-eradication activities in individual countries;
- to review the polio-eradication documentation of each country/zone on an ongoing basis, and report the findings and required actions to the Regional Director and appropriate national committee;
- to bring unresolved certification issues to the attention of the Global Commission for the Certification of Eradication of Poliomyelitis for discussion;
- to certify, if and when appropriate, the eradication of circulating wild polioviruses from the European Region of the World Health Organization, and to provide the Global Commission with the documentation necessary to endorse Regional certification.

The Commission considered the relevance to the European Region of the guiding principles recommended at the First Meeting of the Global Certification Commission in 1995.

The design of the Regional certification process

The health minister of each country was asked by the WHO Regional Director to establish an independent National Certification Committee (NCC), whose members should be senior medical scientists not directly involved with eradication activities. The NCC's task would be to carefully assess, and when appropriate approve, information collected by national staff and documented in the completed "Manual of Operations" for submission to the Commission for review. In this way, NCCs provide, in effect, an independent judgement of the polio status of their own countries.

Through successive meetings, held in different countries of the Region, the Commission reviewed the national documentation sets. Prior to meetings, all members studied the documentation and, in addition, two members took a lead assessment role for each country. WHO officers also made an independent evaluation. The Commission then met to discuss and agree preliminary conclusions, before the NCC chairpersons gave spoken presentations. The national representatives could then be asked to clarify uncertainties and, after further deliberation *in camera*, the RCC's conclusions were presented to the National Certification Committees.

In due course, NCCs provided updated information, including responses made to the comments and recommendations of the RCC reviews. This iterative process was supplemented by visits to selected key areas by Commission members, including parts of the Region with recent experience of polio, such as Albania, Azerbaijan, Bulgaria, Georgia, the Kosovo area, Uzbekistan and Turkey. The RCC's work was further supported by the reports of technical visits to countries made by WHO staff and consultant experts to assess the quality of surveillance.

The stage was finally reached in 2001 when no indigenous wild poliovirus infection had been reported in the region for the past three years and certification might soon become feasible. The Commission decided to undertake this task in two stages, and to address not only the evidence for freedom from polio and progress in laboratory containment, but also the capacity of countries to identify and respond to virus importation, and their plans for sustaining polio control after certification.

A penultimate review was made, for which information in an approved format was requested from all countries. Commission members studied these documents and then met to discuss them at its fourteenth meeting in March 2002. The RCC's assessment was greatly helped by a comprehensive evaluation prepared by the WHO Regional Office.

Presentations by the NCCs of 16 key countries were also heard at this meeting. These were selected for various reasons, such as a need to clarify the extent to which surveillance had recovered after periods of conflict, or to evaluate further progress made in containment. Of particular importance were those presentations from Bulgaria and Georgia on their recent importations of wild virus from the Indian subcontinent.

The RCC concluded in March 2002 that it could probably, in June 2002, certify the region as polio-free, provided certain missing items of information were supplied and found to be satisfactory, and provided no new imported virus transmission episodes occurred before then.

Prior to Regional certification, each NCC was asked to sign a statement of the reasons why they believed their country to have been free from indigenous wild poliovirus transmission in the previous three years. Such a formal statement, signed by senior professionals who know their country well, has been valued by the RCC.

On the evening of 20 June 2002, the RCC unanimously concluded to declare the European Region of the World Health Organization as "Region POLIOMYELITIS-FREE".

The Commission emphasized that, until wild virus was eradicated globally, polio outbreaks due to virus importation remained possible, especially among at-risk groups. It was therefore essential that all countries sustained high levels of polio immunization and surveillance.

THE CHAIRPERSON OF THE REGIONAL CERTIFICATION COMMISSION

SIR JOSEPH SMITH

Joseph Smith qualified in medicine at the University of Wales in 1953. After junior hospital appointments and national service in the RAF, in 1957 Dr Smith joined the Public Health Laboratory Service to train as a medical bacteriologist. From 1960 to 1965 he was Lecturer and Senior Lecturer in post-graduate bacteriology and immunology at the London School of Hygiene and Tropical Medicine (LSHTM), and researched upon the pathogenesis and prevention of tetanus. In 1965 he became Consultant Bacteriologist to the Radcliffe Infirmary, Oxford, and Lecturer in Bacteriology to the University of Oxford, continuing his research on tetanus. After appointments as Head of Bacteriology at the Wellcome Research Laboratories, and as a family doctor in inner London, he became in 1971 Deputy Director of the Epidemiological Research Laboratory of the Public Health Laboratory Service [PHLS]. His research interests there included the epidemiology and immunoprophylaxis of influenza, diphtheria and poliomyelitis. He is the author or joint author of some 140 scientific publications. In 1976 he was appointed Director of the National Institute for Biological Standards and Control, leaving in 1985 to become Director of the Public Health Laboratory Service of England and Wales, from which appointment he retired 1993. He served as Special Professor to the University of Nottingham, 1989-94. He was knighted in 1991.

Sir Joseph Smith has served on a range of official committees of the United Kingdom Department of Health, many reflecting his continuing interest in immunisationimmunization, including: Committee on Safety of Medicines (chairman, Biological Subcommittee); Joint Committee on Vaccination and Immunization (chairman, Subcommittees on influenza and on measles and rubella); Joint Sub-committee on Adverse Reactions to Vaccines; Expert Advisory Group on AIDS; and British Pharmacopoea Commission (chairman, Immunological Committee). He has been a member of the Medical Research Council and was chairman of several of its advisory bodies, including the Committee on Vaccine Development, Tropical Medicine Research Board, Simian Virus Committee, AIDS Vaccine Clinical Studies Committee, Working Group on Spongiform Encephalopathies, and as a member of its Biological Research Grants Board. He was Honorary Civilian Consultant on Immunization to the British Army between 1982 and 1994. He chaired the Board of Management of the London School of Hygiene and Tropical Medicine for two years between 1995 and 1997. Currently, he is a member of: the Royal Society's Working Group on Biological Warfare Defence; the Council of the International Journal for Experimental Pathology; and chairman of the World Health Organization's European Region Commission and also, since 2001, of its Global Commission for the Certification of Poliomyelitis Eradication.

Since 1996, Sir Joseph Smith has been a member of WHO European Commission for the Certification of Eradication of Poliomyelitis.

MEMBERS OF THE REGIONAL CERTIFICATION COMMISSION

PROFESSOR MARGARETA BÖTTIGER

Margareta Böttiger qualified in medicine at the Karolinska Institute, Stockholm in 1954. After training in paediatrics at Bellevue Hospital in New York City and in both paediatrics and bacteriology at the Karolinska Hospital in Stockholm, she began working at the polio and virological department of the National Bacteriological Laboratory, Stockholm, in 1957. From 1957 to 1967, she conducted extensive research on live and inactivated polio vaccines, resulting in her doctoral thesis and dissertation at the Karolinska Institute in 1966. From 1967 to 1971, she was an associate professor at the Karolinska Institute and held a research fellowship from the Swedish Medical Research Council. In 1971, she returned to the National Bacteriological Laboratory, this time in the Department of Epidemiology, with access to laboratory facilities to continue her studies on vaccines. In 1976, she was appointed Full Professor and Head of the Epidemiology Department. Professor Böttiger was concurrently named National Epidemiologist of Sweden, a position that she held until her retirement in 1993.

During this time, Professor Böttiger continued to do both immunological and environmental studies of polio in addition to research in many other areas of epidemiological interest. Evaluations of the introductions of new vaccines and vaccinations against measles (from 1971 onwards), rubella (since 1973), parotitis (since 1978) and MMR (since 1982) were performed. Vaccines against bacterial diseases were also studied (diphtheria, tetanus, BCG, pertussis and Hib), yet polio always held a central place in Professor Böttiger's work as a scientist.

Professor Böttiger has been involved in the analysis of all major infectious disease outbreaks in Sweden since 1971. From 1983 on, AIDS has been a predominant research area. She is the author or co-author of 250 publications and has been a member of a number of Swedish and European committees. Professor Böttiger was an expert adviser to both the global and European World Health Organization advisory groups for the Expanded Programme on Immunization, a member of the Board of the Swedish Medical Research Council, as well as the Data Inspection Board. In addition, she worked with the Epidemiological Group in AIDS Research of the European Union, was a member of the Advisory Board of the Swedish National Board of Health, the Swedish Food administration and the AIDS Commission of the Swedish Government.

Currently, Professor Böttiger is a member of the WHO European Commission for the Certification of Eradication of Poliomyelitis.

PROFESSOR ISTVÁN DÖMÖK

István Dömök completed his primary medical studies at the University Medical School, Budapest, in 1950. He continued his advanced training at the Post-graduate Medical School, Budapest, in clinical laboratory investigations (1955), public health laboratory investigations (1961) and medical microbiology (1980). In 1962, he received his PhD from the Hungarian Academy of Sciences.

In 1950, Professor Domok began working as a researcher in the Department of Virology of the National Institute of Public Health. He was the Chief of the Diagnostic Virology Unit from 1958 to 1969. From 1973 to 1988, he was the Chief of the Department of Virology, and Chief of the Division of Epidemiology and Microbiology from 1974 to 1984. Professor Dömök was the Deputy Director General of the National Institute of Public Health from 1984 to 1997.

Professor Dömök had a long and fruitful collaboration with the World Health Organization, beginning in 1967 when he was appointed to be a member of the WHO Expert Panel on Viral Diseases. He was the Head of the WHO Virus Study Team in Entebbe, Uganda, and member of the WHO Consultative Group on Live Poliovirus Vaccine. Professor Dömök was the Coordinator of the WHO Collaborative Study on Markers of Poliovirus Strains Isolated from Cases Temporally Associated with the Use of Live Poliovirus Vaccine from 1973 to 1979.

At home, in Hungary, Professor Dömök was an active member and leader in public health, epidemiological and microbiological communities. He was on the editorial boards of several journals, and was an author of 101 publications on topics including diagnostic virology, poliomyelitis, viral hepatitis and HIV/AIDS.

Professor Dömök became a member of the WHO European Commission for the Certification of Eradication of Poliomyelitis in 1996, and remained an active and esteemed Member of the RCC until he passed away in 2004. He is greatly missed by the Commission and his colleagues at the World Health Organization.

DOCTOR WALTER R. DOWDLE

Dr Walter Dowdle is a member of The Task Force for Child Survival and Development, Atlanta, Georgia, where he serves as Director, Poliovirus Laboratory Containment Preparedness, US Department of Health and Human Services and consultant to WHO on the Global Poliomyelitis Eradication Initiative.

Prior to joining The Task Force, Dr Dowdle was Deputy Director, Centers for Disease Control and Prevention (CDC), Atlanta, 1987–1994 and Acting Director, CDC, 1989–1990 and 1993. He was Director of the WHO Collaborating Center for Influenza, 1968–1979; Associate Professor, School of Public Health, University of North Carolina, 1964–1984; and Honorary Fellow, John Curtin School for Medical Research, The Australian National University, Canberra, 1972–1973.

A doctoral graduate of the University of Maryland, College Park, Dr Dowdle joined CDC as a virologist and served as Chief, Respiratory Virology Unit; Director, Virology Division; Assistant Director for Science; Director, Center for Infectious Diseases; and Associate Director for HIV/AIDS. He has had extensive experience in virus research, vaccine development/evaluation, and formulation of immunization policy. Dr Dowdle's current active scientific interests include polio, influenza, HIV and malaria.

He has received wide recognition during his career and is a member of various professional societies. He received the Sigma Xi Lifetime Achievement Award for Public Health Science in 1995, CDC's Champion of Prevention Award in 1993, and the Surgeon General's Exemplary Service Award in 1992. He received the US Presidential Distinguished Executive Award in 1982 and 1989. He was President of the Armed Forces Epidemiologic Board from 1992 to 1994 and President of the American Society for Microbiology from 1989 to 1990. He has served on numerous scientific and editorial boards.

Dr Dowdle received his undergraduate and master's degrees from the University of Alabama. He is married to Mabel Irene Dowdle. They have three children. He served in the US Army/US Air Force Medical Corps in Germany and Korea from 1948 to 1952.

Since 1996, Dr Walter R. Dowdle has been a member of the WHO European Commission for the Certification of Eradication of Poliomyelitis.

DOCTOR GEORGE F. DREJER

Dr Drejer qualified in medicine at the Leyden University in 1965, followed by residencies in obstetrics and paediatrics and a course in tropical medicine at the Royal Tropical Institute in Amsterdam.

From 1967 to 1975, Dr Drejer was superintendent and general practitioner in hospitals in the Cameroons. It was here that he became familiar with the clinical aspects of poliomyelitis, through direct experience. Between 1975 and 1979 he trained as a general paediatrician in the Juliana Children's Hospital in the Hague. Dr Drejer served the next 20 years as a general paediatrician and neonatologist in several hospitals in the Hague before becoming a senior consultant in neonatology and head of the neonatal intensive care unit at the Juliana Children's Hospital. After he finished his clinical career in the Hague he participated in a project for two years for the Kilimanjaro Christian Medical Centre, aimed at continuing paediatric education in rural hospitals in northern Tanzania. Dr Drejer has been appointed as a senior consultant and lecturer in paediatrics at the Queen Elizabeth Central Hospital and the College of Medicine of the University of Malawi in Blantyre, with a special interest in perinatology.

Dr Drejer has served on a number of committees and participated in many different missions reflecting his interest in international child health and post graduate education in Europe and Africa, including: evaluation of residual poliomyelitis after 10 years of immunization in Burkina Faso (1990); emergency paediatrics in Angola, Médecins Sans Frontières (MSF); and as a member of a workgroup of MSF for continuing the education of medical specialists from Romania in the Netherlands.

Since 1996, Dr Dreyer has been a member of the WHO European Commission for the Certification of Eradication of Poliomyelitis.

PROFESSOR SERGEI DROZDOV

Sergei Drozdov qualified in medicine at the Kuban State Medical Institute, in Krasnodar, Russia, in 1952. That year, he joined the Institute of Virology of the Academy of Medical Sciences of the USSR, in Moscow, for postgraduate studies. In 1956, Dr Drozdov graduated with the degree of Candidate of Medical Sciences in virology. In 1955, he was appointed to be a Junior Scientist in the newly established Institute of Poliomyelitis and Viral Encephalitides of the Academy of Medical Sciences of the USSR. In 1958, Dr Drozdov was promoted to the position of Senior Scientist and, in 1959, he became Head of the Laboratory of Epidemiology of Poliomyelitis. In 1965, Dr Drozdov received the degree of Doctor of Medical Sciences (DMSci) in virology and epidemiology. From 1965 to 1971, Dr Drozdov was a Medical Officer in the Viral Diseases Unit of WHO in Geneva, Switzerland. In 1971, he was appointed Deputy Director of the Institute of Poliomyelitis and Viral Encephalitides. Since 1972, Professor Drozdov has been Director of the Institute.

In 1978, Professor Drozdov was elected as a Corresponding Member of the Academy of Medical Sciences of the USSR, and in 1984, he became a Full Member of the Academy (FM RAMS).

Professor Drozdov's research interests and fields of professional activity include the virology, epidemiology, prevention and eradication of poliomyelitis; tick-borne encephalitis; hemorrhagic fevers; rotavirus gastroenteritis; environmental virology; and biological safety in virological laboratories. The scientific activities of Professor Drozdov are presented in more than 350 publications in scientific journals and bulletins, four monographs and several chapters in professional manuals. In addition, the Institute of Poliomyelitis and Viral Encephalitides conducts research in basic science and medical virology, including poliomyelitis, enteroviral diseases, tick-born encephalitis, hemorrhagic fevers, arenaviral diseases, hepatitis and rabies. The Production Department of the Institute, which was established in 1957, manufactures poliovirus vaccines as well as vaccines for tick-borne encephalitis, rabies and yellow fever.

Since 1995, Professor Drozdov has been a member of the WHO Global Commission for the Certification of Eradication of Poliomyelitis and, since 1996, he has been a member of the WHO European Commission for the Certification of Eradication of Poliomyelitis.

DOCTOR DONATO GRECO

Donato Greco was born in Naples, Italy, in 1947. He received his doctorate in medicine and surgery from the University of Naples in 1971 and continued his training in medicine and public health, earning specialized degrees in: Infectious, Tropical and Subtropical Diseases from the University of Naples in 1974; Preventive Medicine and Hygiene from the University of Naples in 1977; and Medical Statistics from the University of Rome in 1982. Dr Greco also studied public health at the London School of Hygiene and Tropical Medicine, the US Centers for Disease Control and Prevention, in Atlanta, and at the WHO Expanded Programme on Immunizations course in Moscow. Dr Greco practiced as a physician in the clinical wards of the D. Cotugno Hospital for Infectious Disease in Naples for 9 years before moving to the Instituto Superiore di Sanità in Rome to establish the Laboratory of Epidemiology and Biostatistics.

In 2004, after 26 years at the Laboratory of Epidemiology, where he focused primarily on infectious disease epidemiology, he assumed the dual responsibilities of Director General of Disease Prevention of the Italian Ministry of Health and director of the newly founded National Center for Disease Control (CCM). During this time, Dr Greco has been an author of more than 100 scientific publications.

For more than 20 years, Dr Greco has strengthened global public health through his participation in committees, commissions and advisory boards for Italy, the European Union and the World Health Organization. During that time, he has been the director of the WHO Collaborating Centre for Health and Disease Surveillance, Instituto Superiore di Sanità, Rome.

Since 1996, Dr Greco has been a member of the WHO European Commission for the Certification of Eradication of Poliomyelitis.

PROFESSOR BURGHARD STÜCK

Burghard Stück did his medical training at the Freie Universität Berlin in Germany, from which he obtained his MD degree in 1955. From 1955 to1962, Dr Stück did an internship and residencies in neurology, internal medicine and paediatrics at the University Hospital, Freie Universität Berlin. A NATO fellowship took him to New York to work at the Sloan-Kettering Institute for Cancer Research's Unit of Tumour Immunology from 1962 to 1964. In 1966, Dr Stück completed his Doctor of Medical Science degree and, until 1974, he was an Attending Physician at the Children's' Hospital of the Freie Universität Berlin. He became a Professor of Paediatrics in 1971. For twenty years, from 1974 to 1994, Professor Stück was Head of the Paediatric Department, University-Hospital "Rudolf-Virchow", in Berlin.

Professor Stück was a Member of the National Advisory Committee for Immunization, Robert Koch-Institut, Berlin, from 1977 to 1998. He was also a Member of the Immunization-Committee of the German Association against Virus Diseases (DVV) from 1975 to 2002.

Since 1996, Dr Stück has been a member of the WHO European Commission for the Certification of Eradication of Poliomyelitis.

PLENARY SESSION OF
THE EUROPEAN REGIONAL CERTIFICATION COMMISSION
ON 20 JUNE 2002

Current situation in the European Region, in the Eastern Mediterranean Region and globally

From left to right: Dr Ray Sanders, Dr Nedret Emiroglu, Dr Donato Greco, Sir Joseph Smith, Dr George Oblapenko and Dr Daniel Tarantola.

EUROPEAN SUBREGIONAL OVERVIEW

In 1996, the RCC recommended splitting the Region into six subregional zones to facilitate easier analysis of a large and complex Region. These subregions are:

1. **Nordic/Baltic**
2. **Western**
3. **Central**
4. **Southern**
5. **Central/eastern**
6. **MECACAR, Russian Federation**

The analysis of each of the subregions is based on a review of 10 components of health-care provision and polio-eradication activities. A description of the components used, together with summaries of results for each subregion, is provided in Annex 2.

1. NORDIC/BALTIC SUBREGION

(Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway, Sweden)

Health-care reform is progressing in all countries of this subregion, and health services are classified as good or very good. The population has good access to immunization services and the health systems are expected to detect and correctly diagnose any paralytic diseases that occur. Routine immunization

coverage is very good; with most countries either using inactivated poliovirus vaccine (IPV) alone or in combination with oral poliovirus vaccine (OPV). There are no indications of significant under-vaccinated populations in the subregion.

Surveillance quality in the subregion is good. Although only Estonia, Latvia, Lithuania and Norway have acute flaccid paralysis (AFP) surveillance systems, almost all countries have acceptable enterovirus surveillance systems and several have environmental surveillance to provide supplementary data. Laboratory quality control systems for enterovirus laboratories exist in Denmark, Estonia, Finland, Iceland, Latvia and Sweden.

Laboratory containment activities are progressing well in almost all countries, with Sweden making only slow progress. Within the subregion there are a limited number of laboratories retaining wild poliovirus, and these are all operating under biosafety level 2 (BSL-2)/polio conditions.

The likelihood of indigenous wild polio circulation is judged to be very low because of the well-established health systems with the capacity to provide good immunization coverage and good surveillance. The countries are also judged to have a strong capacity to detect any possible importations of wild poliovirus.

2. WESTERN SUBREGION

(Austria, Belgium, France, Germany, Ireland, Luxemburg, Monaco, Netherlands, Switzerland, United Kingdom)

All countries in the subregion have good or very good health-care systems providing good access to services. However, immunization coverage data is not available for several of the major countries, as they currently have no systems to collect this data. Despite this lack of data, routine immunization systems are generally believed to be strong with more than 90% of children reaching school entry being fully immunized. A vulnerable subpopulation of approximately 300 000 individuals who refuse vaccination for religious reasons exists in the Netherlands, and strong anti-immunization lobbies exist in many of the countries. All countries in the subregion, with the exception of the United Kingdom, use IPV.

Only 50% of the countries had established AFP surveillance systems in 2001, and the performance of these was not impressive, particularly with regard to adequate stool collection rates. In place of AFP surveillance, several countries rely on data from enterovirus surveillance networks. The enterovirus surveillance systems are well established, but the data they generate is complex and difficult to summarize. Generally, countries lack data collection and management systems capable of easily analysing the data in a manner required for the polio-eradication initiative. In addition to enterovirus surveillance, at least two of the countries, France and the Netherlands, have well-developed environmental surveillance systems.

Containment activities have progressed slowly, but all countries have the capacity to complete containment requirements and are all expected to have completed their national inventories by the end of this year. This is probably the most difficult subregion with respect to containment activities as it includes the European countries with the most research, private and tertiary education laboratories.

The likelihood of continued circulation in the subregion is considered to be very low as all countries have well-developed health services providing universal access, good surveillance for paralytic diseases and good immunization coverage. The last imported case to be detected was in France in 1995, and the last wild poliovirus was detected in sewage in France in 1996, demonstrating the capacity to detect imported cases and viruses. The last wild poliovirus outbreak detected in this subregion occurred in the Netherlands in 1993, and occurred among persons refusing immunization on religious grounds.

3. CENTRAL SUBREGION

(Belarus, Bulgaria, Czech Republic, Hungary, Poland, Slovakia, Slovenia)

Health-care reform is progressing in most of the countries of the subregion, and health-care services are either good or very good. The population has good access to immunization services, and the health systems are believed to have the capacity to detect, diagnose and respond to paralytic cases in a timely manner.

Routine immunization coverage is very good in all countries, and all use OPV in their immunization schedules, although several have now switched to a combined OPV/IPV regimen. After wild poliovirus importation into Bulgaria in 2001, extensive supplementary immunization activities were conducted in the country, and supplementary immunization of high-risk groups in Hungary and Slovakia were also undertaken.

AFP surveillance quality is good in half of the countries and moderate in the others. Most countries carry out enterovirus surveillance in support of AFP surveillance activities, and two countries also carry out environmental surveillance. In general, the level of supplementary surveillance increased after the importation into Bulgaria.

Good progress has been made with implementation of containment requirements, and only seven laboratories have been identified in the subregion as having wild poliovirus infectious materials: all operate under BSL-2/polio conditions.

There is no indication of continued poliovirus transmission in Bulgaria or neighbouring countries; all evidence suggests that successful immunization campaigns prevented extended transmission of the virus. The likelihood of continued transmission of indigenous wild poliovirus in the subregion is very low, due to good surveillance and high immunization rates.

4. SOUTHERN SUBREGION

(Andorra, Croatia, Greece, Israel, Italy, Malta, Portugal, San Marino, Spain)

The countries in this subregion all have good or very good health services, with good access to immunization and preventive health care. Immunization coverage levels are high, with countries using either OPV alone or in combination with IPV.

Only seven of the nine countries have established AFP surveillance, and performance is generally poor, with particularly low stool collection rates. However, six of the countries have supplemented AFP surveillance with enterovirus surveillance of good quality, and three of the countries run environmental surveillance programmes.

Containment requirements have been implemented in all countries except Portugal, where progress has been slow. With the exception of laboratories in Italy, there are very few laboratories retaining wild poliovirus infectious materials.

Although Andorra and San Marino have not provided surveillance data, their small populations (total of less than 100 000) would not support ongoing poliovirus transmission. Given the well-established health systems, good immunization coverage and extensive surveillance systems the likelihood of continuing wild poliovirus circulation in this subregion is considered to be very low.

5. CENTRAL/EASTERN SUBREGION

(Albania, Bosnia and Herzegovina, The former Yugoslav Republic of Macedonia, Republic of Moldova, Romania, Ukraine, Federal Republic of Yugoslavia)

Health-care reform is in a transition phase in this subregion; health services are at a satisfactory level, with the population having reasonably good access to health care and immunization services. All countries use OPV exclusively in their immunization schedules and coverage is reported to be high. There have been concerns, however, regarding under-vaccinated subgroups in the Federal Republic of Yugoslavia, and particularly in Bosnia and Herzegovina. Reports on recent supplementary immunization campaigns carried out in these areas suggest that at least 90% of the target populations have received OPV.

All countries have good AFP surveillance systems with good national indicators and generally good subnational indicators. The only exception has been Bosnia and Herzegovina, but special efforts have recently been made to enhance surveillance and significant improvements have been noted for 2002. The Republic of Moldova and the Federal Republic of Yugoslavia also have well-established enterovirus surveillance systems. Albania conducts annual stool surveys of healthy children under 15 years of age, as well as diagnosis of children with diarrhoea. The Ukraine has an extensive system of enterovirus surveillance, but the system fails to meet WHO quality assurance standards. Moldova also runs an environmental surveillance system.

Containment requirements have been implemented in all countries of this area. There are only three national laboratories retaining wild poliovirus infectious materials in BSL-2 conditions.

No wild poliovirus circulation has been detected in this subregion since the 1996 outbreak due to an importation of wild poliovirus into Albania and the Federal Republic of Yugoslavia. Given the relatively good health systems that can detect cases of polio, the good immunization coverage and good surveillance systems, it is considered that the likelihood of wild poliovirus circulation in this subregion is very low.

6. MECACAR COUNTRIES AND RUSSIAN FEDERATION

(Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkey, Turkmenistan, Uzbekistan)

Countries in this subregion have 33% of the population of the Region, the least well-developed health services and the highest infant mortality rates. These countries represent a recently polio endemic zone, and had the last indigenous wild poliovirus and the last importation. Health-care reform is in a transition period, but health services are generally satisfactory and immunization and epidemiological services are adequate. All countries use OPV exclusively in their immunization schedules, and have relied on extensive supplementary immunization campaigns in the past 3 years to establish and maintain high immunization coverage.

All countries use AFP surveillance for polio detection, although, as the identification of wild poliovirus in Georgia has demonstrated, important supplementary information can be provided through clinical sample testing and environmental surveillance. AFP surveillance quality is generally high, with good indicators at both national and subnational levels.

Containment progress is good, with all countries except Georgia having completed the national laboratory survey and inventory stages. There are very few laboratories retaining wild poliovirus infectious materials.

Because of good population immunity due to supplementary immunization and routine immunization activities, and good AFP and supplementary surveillance performance, the likelihood of continued indigenous wild poliovirus circulation in the countries of this subregion is considered to be very low. However, several countries must be considered at high to medium risk of reintroduc-

tion of wild poliovirus through importation. These countries include the Russian Ferderation (north Caucasus region), Tajikistan, Turkey (south east), Azerbaijan, Georgia and Uzbekistan.

IMPORTATIONS OF WILD POLIOVIRUS INTO COUNTRIES IN THE REGION: LESSONS LEARNT

Two wild poliovirus importations were detected in the Region in 2001, in Bulgaria and Georgia; all available evidence suggests transmission was very limited in both instances. With extensive virus transmission continuing in Pakistan/Afghanistan and northern India, the Region remains at continued risk of importation. For this reason, the National Plans of Action for maintaining polio-free status, which all countries in the Region have been requested to prepare, are of the greatest importance. All countries must be able to detect importation and act effectively to prevent re-establishment of circulation. Establishing a system to ensure effective action in preventing further transmission of importations is the key to maintaining the Region's polio-free status.

Experience with other importations, into the Netherlands, the United States of America and Canada in 1978; into the Netherlands and Canada in 1992; into China in 1999; and into Iran in 1999, have demonstrated that a rapid and extensive response to detection of wild poliovirus is essential in limiting transmission, preventing further spread and maintaining public confidence in the polio-eradication initiative. These instances have also demonstrated that importation into polio-free areas is a relatively common event.

Of the two importations into the European Region in 2001, response in Bulgaria was both prompt and effective. Intratypic differentiation (ITD) results were available within 10 days from the initial virus isolation, the surveillance system was enhanced within 3 days and National Immunization Days (NIDs) were implemented within 30 days. All neighbouring countries undertook prompt action following the importation by enhancing surveillance and identifying and immunizing high-risk groups. Molecular sequence data suggests that the virus originated in northern India, and epidemiological evidence exists to support the conclusion that India is the most likely source. The second importation, into Georgia, close to the border with Armenia and Azerbaijan, was detected in October 2001. An Azeri child with suspected meningitis was found to be excreting wild poliovirus. In this instance, because the case was not considered to be AFP, there were delays in sending the polio isolates for ITD. There was also a slower response to the importation than in Bulgaria, although surveillance was enhanced, and supplementary immunization carried out. The origin of the virus is again likely to be northern India, but in this case there is no clear supporting epidemiological evidence.

The principal lesson learned from experience to date is to expect another importation soon. All countries in the Region, particularly those neighbouring endemic areas, with close economic or cultural ties with endemic areas or with under-vaccinated subpopulations, must improve surveillance timeliness and ensure rapid notification and investigation of suspected cases. The concept of epidemiologically or clinically suspect cases, "hot cases", has greater validity now than ever before, and rapid notification and investigation of these cases is essential if Europe is to remain polio free.

PROGRESS TOWARDS ERADICATION OF POLIOMYELITIS IN THE EASTERN MEDITERRANEAN REGION

There are four countries in the Eastern Mediterranean Region with continued wild poliovirus circulation; high-level transmission in Pakistan and Afghanistan, and lower level transmission in Somalia and Egypt. The last polio case in Sudan was detected in April 2001 and it is believed the country is currently polio free. Intense supplementary immunization and enhanced surveillance activities have been carried out in all five of these countries in 2001, and are continuing in 2002. A significant prob-

lem for the Region is that three of the endemic or recently endemic countries, Afghanistan, Somalia and Sudan, are conflict areas and access to the children requiring immunization is not always possible.

AFP surveillance performance is now good in almost all countries in the Region, with most countries having a case detection rate of ≥1 and 83% of cases having 2 stools in 2001. The suboptimal stool collection rate in Somalia in 2001 has been improved in 2002. In 2001, there were 140 wild poliovirus-associated cases in the Region: 116 in Pakistan, 11 in Afghanistan, 7 in Somalia, 5 in Egypt and 1 in Sudan. To date in 2002 there have been 23 confirmed cases: 19 in Pakistan, 2 in Afghanistan and 2 in Somalia. Poliovirus type 1 and 3 continue to circulate in Pakistan and Afghanistan, while only type 3 has been detected recently in Somalia.

Although Pakistan continues to have widespread circulation, the number of infected districts has reduced dramatically over the past 2 years, with only 13 districts with wild poliovirus cases detected in 2002. The major endemic foci now span the border areas between Pakistan and Afghanistan. In Somalia, with two cases detected to date in 2002, AFP surveillance is good but stool collection rates are low at 62% and need to be improved. Egypt had five cases detected in 2001, in two governorates. To date in 2002, no cases have been detected, but wild poliovirus has been isolated from sewage samples collected at five different sites along the Nile. The last wild poliovirus positive sample was collected in April.

Great progress has been made in polio eradication in the Eastern Mediterranean Region over the past 2 years. The challenge now is to maintain the progress that has been made and reach the goal of polio eradication.

REGIONAL OVERVIEW: ARE WE READY FOR CERTIFICATION?

At its fourteenth meeting, in March 2002, the RCC reviewed the documentation from the 51 countries, defined the additional documentation required and set the following preconditions for certification:

- provision of strong evidence that the importation of wild poliovirus into Bulgaria and Georgia has been appropriately controlled;
- demonstration that Member States have achieved substantial progress towards laboratory containment of wild poliovirus;
- receipt from all 51 Member States of high-quality updated documentation on their polio-free status, together with Plans of Action to maintain polio-free status post-certification.

The governments of Bulgaria and Georgia have both submitted documentation on their responses to the importation of wild poliovirus in 2001, and their assessments that the importations were successfully controlled. In addition, members of the RCC have visited both countries to assess the epidemiological situation and review the activities undertaken. The response in both countries has been very positive, with rapid implementation of supplementary immunization activities to limit the potential spread of virus, improved surveillance and improved targeting of immunization services. All available evidence strongly supports the conclusion that in both countries the importations were rapidly controlled and re-establishment of circulation of wild poliovirus was prevented.

Implementation of the Regional Plan of Action on containment of laboratory stocks of wild poliovirus has progressed over the past 2 years. Containment status has been summarized by countries and presented by subregions (Annex 2). Delays have been noted, particularly in some western European countries, and the WHO Regional Office has been closely monitoring developments and providing technical support where needed. All countries have now submitted an updated report on progress with containment, 41 of the 51 Member States have completed the national survey of laboratories and have presented a final report signed by a minister of health. Good progress has been observed in the remaining 10 countries. It is expected that all countries will be able to submit a final report to the RCC later in 2002.

The quality of surveillance for wild poliovirus has shown a steady improvement over the past 3 years, with the Regional average non-polio AFP rate in 2001 at 1.15 and 81% of reported cases with two stools. This level of quality has been maintained in the first quarter of 2002. More than 7000 stool samples from AFP cases, and an additional 3000 samples from contacts of cases, are being tested annually in the Regional polio laboratory network, with more than 75% of results being reported within 28 days of the samples being received in the laboratory. AFP surveillance is strongly supported in many countries of the Region by enterovirus surveillance and environmental surveillance. Through the network of laboratories involved in enterovirus surveillance more than 158 000 stool samples were investigated for poliovirus between 1999 and 2001. No indigenous wild poliovirus isolates have been detected in the past 3 years.

Attempts have also been made to assess the likelihood of circulation of indigenous wild poliovirus using a composite surveillance index. Criteria for this index include quality of health care, quality of surveillance activities and duration of polio-free status. Based on this assessment, available evidence strongly suggests that all countries in the Region have good capability to detect in a timely manner any case of paralytic poliomyelitis.

Assessments have also been made of the potential risk of re-establishing circulation of wild poliovirus following an importation. Six main criteria have been used for this assessment: immunization coverage; the population immunity profile; the proportion of high-risk subpopulations; the quality of surveillance; the quality of epidemiological or public health services; and the level of sanitation. Using this assessment, the only countries that can be considered at high risk for re-establishment of circulation are Bosnia and Herzegovina, the Netherlands, the north Caucasus region of the Russian Federation, Tajikistan and the south-eastern regions of Turkey. At lower risk are Azerbaijan, Georgia, Greece and Uzbekistan.

The WHO Regional Office has developed and distributed a template for proposed National Plans of Action for maintaining polio-free status. The plan should address actions required to sustain high levels of routine immunization coverage, with supplementary immunization activities where appropriate, actions to sustain high-quality laboratory-based surveillance and actions to control importations of wild poliovirus. Comprehensive plans have been received from 45 of the 51 Member States, and statements of strong commitment together with highlights of key actions to be undertaken have been received from the remaining 6 countries.

In summary, the preconditions for certification set by the RCC have all been met, and the evidence has been presented to the RCC for consideration. The WHO Secretariat strongly believes that the Region is now ready for certification.

NATIONAL IMMUNIZATION PROGRAMMES IN THE EUROPEAN REGION

With the development and adoption of the WHO/UNICEF Joint Reporting Form it is now possible to collect and analyse standard immunization coverage and disease incidence data for every country in the Region. Among other things, the Joint Form collects annual data on disease incidence, immunization schedules, the source of vaccine, immunization coverage and immunization system indicators. Collected data is cleaned and analysed by WHO in Geneva and country profiles are distributed in traditional printed format and through the World Wide Web.

Data from European countries have shown that immunization coverage has risen since 1990, and that high coverage (>90%) is now routinely reported for EPI vaccines. Furthermore, reported disease incidence for vaccine-preventable diseases is now low. However, the quality of reported data is now under question, and discrepancies have been noted between reported coverage and levels calculated

from coverage surveys. There is also greater scrutiny of data at a subnational level, especially where aggregated national data suggesting high coverage may hide significant deficiencies in some districts or subnational populations. There is also greater emphasis on timeliness of delivery of immunization services, rather than on simple coverage figures. Concern also exists over the possibility that low reported-disease incidence may be due to under-detection or under-reporting, rather than to absence of disease. Overall, there is now greater emphasis on the quality of information being collected, its completeness, timeliness and accuracy.

Countries in the Region are now being encouraged to improve immunization service delivery, to increase coverage and reach all eligible individuals in their populations. To do this they require improved access to their populations by using innovative approaches, such as outreach services and pulse campaigns. They need to improve the level of utilization of the services they provide by decreasing the level of vaccination dropouts and dissuading the use of false contraindications to vaccination. Countries are being encouraged to adopt strategies that are target oriented, aimed at the highest-risk groups in their populations: the urban poor, remote rural areas, minority groups and mobile populations. To provide immunization services to these difficult-to-reach groups, strategic planning at local level will be required, together with capacity building to improve local management.

Other areas of the immunization programme that are gaining renewed attention are cold chain, logistics and safety of immunizations. Although of high priority there are, and always have been, limitations in the national resources available to ensure that requirements in these areas are properly met. It is essential that capacity exist at local levels, that the infrastructure is maintained through provision and maintenance of equipment, and that local management is adequate for the task.

Vaccine Vial Monitors (VVMs) have been introduced and accepted and are well utilized. There is an increased use of auto-disable (AD) syringes and safety boxes, and adverse events following immunization (AEFI) surveillance systems have been established in many countries. These need to be strengthened, however, to be fully functional. Countries are being encouraged to improve management of vaccine supplies, particularly through monitoring at each level, and to make better assessments of capacity at subnational levels. Safety of immunizations is now of major concern, in terms of both safety of injections and waste disposal management. Assessments are currently in place, and there is strong Regional promotion of AD syringes and the use of safety boxes.

The Global Alliance for Vaccines and Immunization (GAVI) is an international coalition of partners, including national governments, international organizations such as the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the World Bank and a number of philanthropic institutions. GAVI provides funding support for new and under-used vaccines, such as hepatitis B, *Haemophilus influenzae* type B (Hib) and yellow fever. It also provides support for immunization services and for injection safety. An algorithm is used to assess eligibility of countries for access to the fund, and to determine how any support should be used. Of the 74 countries in the world considered eligible for support, 64 have submitted applications, and to date 53 of the applications have been approved. Of those 53, 11 are countries from the European Region.

Substantial progress has been made in the introduction of hepatitis B vaccine within the Region, and 40 countries already include the vaccine in their routine immunization programmes. Hib vaccine is widely used in western European countries, but use is limited in other areas. For many countries it is important to carry out a thorough Hib disease burden estimate and needs assessment before considering introduction into the routine programme. Although these introductions are generally progressing well, there remains significant scope for improvement in the implementation of new vaccine introduction in many countries in the Region.

In addition to providing opportunities for accelerating introduction of new vaccines, experience

with GAVI has also had an impact on strengthening immunization services through the introduction of programme assessments, development of multi-year immunization plans, resource mobilization and coordination, and an emphasis on injection safety. It has provided an opportunity to expand the immunization infrastructure and capacity, and to apply the lessons learnt to other countries in the Region.

In general, countries in the Region have strong, functional immunization programmes, but the existing infrastructures are operating under stress. There is often a lack of political commitment to the long-term goals of immunization, reflected in the paucity of resources allocated to immunization services. The sustainability of established systems must be ensured, by maintaining the progress that has been made, by improving the infrastructure and by better monitoring of activities to ensure improved quality and efficiency. The establishment of multi-year national immunization plans are essential to this process, ideally providing a clear analysis of the national situation, identifying problems and setting clear priorities and future directions for the immunization services.

The Region is actively pursuing disease control initiatives in polio eradication, diphtheria control, measles elimination and congenital rubella syndrome (CRS) prevention. Polio eradication has been hugely successful, and much can be learnt from this success. Diphtheria now appears to be under control, with a very low level of transmission after the outbreak in 1994. The incidence of measles has dropped in the past 20 years, with most countries using the combined measles-mumps-rubella (MMR) vaccine. The incidence of rubella, however, continues to be high in the Russian Federation. The Strategic Plan for Measles and CRI calls for the interruption of measles transmission by 2001, together with the prevention of CRI (to a level of less than 1 case per 100 000 live births). To achieve these goals, six key strategies have been identified:

- achieve and sustain very high coverage with two doses of measles vaccine
- provide a second opportunity for measles immunization
- target populations susceptible to rubella
- ensure protection of women of childbearing age
- strengthen surveillance systems
- improve availability of information on immunization.

Critical components of these strategies include ensuring social and political support, together with mobilization of resources, strengthening routine immunization programmes and strengthening surveillance, in particular the adevelopment of an appropriate laboratory network.

Future work of WHO includes focusing on the national level, by assessing national needs and priorities, supporting country-level activities, mobilizing technical and financial resources, developing national capacity and providing guidance in line with Regional priorities. Regional coordination will be improved through better exchange of information and experience, more effective advocacy and resource mobilization, better coordination of partner support and better development of the infrastructure for capacity building. Priorities for the coming year include strengthening routine immunization services by building on the existing infrastructure, improving quality and safety and capacity building for improved management. Implementation of the introduction of new vaccines must be improved, diphtheria control must be sustained, and implementation of the strategic plan for measles elimination and CRS prevention started in earnest.

PLENARY SESSION OF
THE EUROPEAN REGIONAL CERTIFICATION COMMISSION
ON 21 JUNE 2002

Aspects of post-certification activities

POLIOMYELITIS ERADICATION: GLOBAL PROGRESS, POST CERTIFICATION STRATEGIES AND PLANS

The past eighteen months have seen a dramatic fall in the number of reported polio cases globally from 2 971 in 2000, to 498 in 2001. Less than 200 cases of poliomyelitis were reported in the first five months of 2002. The drop in reported cases is very significant, especially given the increased sensitivity of acute flaccid paralysis (AFP) surveillance worldwide. Between the years 2000 and 2001, the number of polio-endemic countries has dropped from 20 to 10. Since the Global Polio Eradication Initiative was launched in 1998, it is estimated that more than five million cases of paralysis have been prevented, mostly in the developing world.

There is strong evidence that type 2 polio has been eradicated. The last polio case associated with wild poliovirus type 2 was detected in October 1999. Bangladesh and the Democratic Republic of the Congo, previously areas of high transmission, have both been polio-free for more than one year. At this time, there remain only five countries with high intensity poliovirus transmission: India, Pakistan, Afghanistan, Nigeria and Niger. These countries accounted for more than 85% of the polio cases reported in 2001. The Horn of Africa (Somalia, Sudan, Ethiopia), Egypt and Angola are considered to be areas of lower intensity transmission where it should be possible to rapidly interrupt poliovirus transmission through targeted surveillance and immunization activities.

Sir Joseph Smith (centre) announcing the decision of the RCC to certify the WHO European Region as poliomyelitis free.

As the Global Polio Eradication Initiative nears its goal, it has recently been confronted with new challenges: the emergence of vaccine-derived polio virus (VDPV) epidemics in two regions and an increased urgency to develop a post-eradication immunization strategy. Historical data suggest that an outbreak of type 2 VDPV may have occurred in Egypt in the 1980s, but there are no indications that VDPV outbreaks were common in the past. Polio cases due to circulating type 1 VDPV were detected in Haiti and the Dominican Republic in 2000 and 2002 (21 virus-confirmed cases) and in the Philippines in 2001 (3 virus-confirmed cases and 1 contact). Genomic sequence analyses of viral isolates

show more than two percent divergence from the Sabin strain of poliovirus, suggesting that the viruses may have been evolving for up to two years before paralytic cases were detected. Researchers now believe that low immunization coverage may be a risk factor for development of VDPVs. This implies that the European Region would be at increased risk for VDPV outbreaks if it allows polio vaccination rates to decrease. Unless high vaccine coverage is maintained and a comprehensive post-eradication immunization strategy is developed, VDPV-associated polio outbreaks may become commonplace.

Given the rapid progress recently made toward interrupting wild poliovirus transmission, the programme of work to develop a post-eradication immunization strategy has accelerated. WHO and its partners are coordinating an agenda of research necessary to facilitate building global consensus on the safest and most effective polio immunization strategy after wild polioviruses have been eradicated. There remains a need to open the discussion to a much wider audience and to include public health, epidemiological and scientific experts not directly involved in polio eradication. Discussions should also address the different resources and options available in each subregional zone.

UPDATED COUNTRY EXPERIENCES

Netherlands: Environmental surveillance used to supplement AFP surveillance for high risk populations

Although AFP surveillance has been done in the Netherlands in 1992, reporting is weak. Enterovirus surveillance is used as a supplementary surveillance system, with approximately 10 000 stool samples examined annually. Since 1993, approximately 650 enterovirus isolations are reported each year, of which between 1 and 3 are polioviruses. All polioviruses isolated have been Sabin-like, and since the Netherlands is an IPV-using country, these isolations have always been related to importation from OPV-using countries.

Environmental surveillance for wild polioviruses was used in the Netherlands in the Ministry of Health's response to an outbreak of wild poliovirus in an orthodox religious community. The outbreak occurred from September 1992 to February 1993 in a religious community that generally does not accept vaccination. A review of epidemiological and virological data shows that environmental surveillance was an effective tool through the outbreak. Wild poliovirus was detected in high-risk areas one week before the initial notification of clinical cases, and a retrospective study demonstrated the presence of the outbreak virus in a sample collected three weeks before notification of the first case. During the actual outbreak, wild poliovirus type 3 was detected in 23 of 269 samples collected from areas which included sewage from the religious communities. No wild polioviruses were detected after the last clinical cases, supporting the conclusion that the outbreak was over.

From August 1998 to February 1999, a project to more closely monitor enterovirus circulation in four villages in the orthodox religious communities was undertaken. One litre sewage samples were collected from each village on a weekly basis, and of the 111 samples collected, 41 (37%) were positive for virus by cell culture and 76 (68%) were positive by pan-enterovirus specific RT-PCR. None of the samples collected were positive for poliovirus.

Since 1999, environmental surveillance has been used to monitor selected villages in designated high-risk areas (i.e., sites associated with the 1992 outbreak) and selected secondary schools (i.e., large schools with low vaccine coverage). A total of 15 sites are sampled, with a maximum of seven samples being collected from each site annually. Of the 105 samples collected annually, 63 are from school collection sites and 42 are from villages. No poliovirus isolates have been obtained from any of the environmental samples collected since March 1993, however more than 20% of samples collected from schools and more than 50% of samples collected from villages contain non-polio enteroviruses. Typing the enteroviruses obtained from environmental samples has been used to monitor enterovirus

circulation. Environmental surveillance has also targeted other high-risk areas, such as the three main centres through which the most immigrants pass and the immigrant population of Rotterdam during a poliovirus type 3 outbreak on Cape Verde. No wild poliovirus has been detected in these areas.

The use of environmental surveillance has been found to be an important adjunct to AFP surveillance of high-risk populations in the Netherlands, but it is not clear whether routine environmental surveillance would be a reliable means to monitor poliovirus in large towns with large immigrant populations. It is also very important to emphasize that data provided by environmental sampling must always be regarded as supplementary to AFP surveillance, which remain the gold standard for polio eradication programmes.

Spain: Enterovirus surveillance and the national laboratory network

In 1998, a sub-national network of enterovirus laboratories was established to serve the AFP surveillance system in Spain. Since 1999, these laboratories have also been conducting enterovirus surveillance by testing specimens from hospitalized patients diagnosed with severe neurological diseases. The system has since been expanded to include the characterization of enterovirus isolates from virology laboratories not involved in AFP surveillance. All enteroviruses isolated are sent to the National Polio Laboratory for confirmation and characterization using WHO recommended methods.

Virus isolation is carried out using L20B, RD, HEp2 and fibroblast cells, although not all sub-national laboratories in Spain have access to L20B cells. Immunofluorescent assay is also used to detect enterovirus antigen. All laboratories report monthly results and carry out an annual sensitivity test coordinated by the National Polio Laboratory. The National Laboratory also has the capacity to characterise enteroviruses by RT-PCR. In the past, all poliovirus isolates were subjected to intratypic differentiation by PCR-RFLP. Recently the laboratory has also been using the diagnostic RT-PCR developed by CDC. All isolates characterized by RT-PCR have been subjected to sequencing of the VP1 region of the genome as recommended by WHO.

Each year since 1999, between 1 000 and 1 500 stool specimens have been processed by the network laboratories, together with approximately 6 500 other specimens from appropriate patients. In 1999, the enterovirus positivity rate was 7%; in 2000, the positivity rate was 14%; and in 2001, it was 13%. Forty-seven percent of the 75 poliovirus isolates obtained to date have been from stool specimens, with a 0.9% poliovirus isolation rate. Only 12% of all virus isolates came from patients with acute flaccid paralysis, the remainder being mainly patients diagnosed with aseptic meningitis.

In Spain, enterovirus surveillance appears to be a powerful supplementary surveillance tool, providing important public health data on enterovirus epidemiology that would not be provided by AFP surveillance alone.

France: Laboratory containment of polioviruses

Although France was slow to initiate activities for laboratory containment of polioviruses, the process has now started and the National Plan of Action for the Containment of Polioviruses has been completed. Containment activities began with an assessment of laboratories in the health sector. A preliminary list of 5 869 laboratories was established and a questionnaire were sent to each. To date, 3 644 (62%) have responded to the questionnaire. Of these, 26 (0.7%) report that they retain poliovirus infectious materials and 67 (2%) have potentially infectious materials.

It is believed that there are approximately 3 000 laboratories outside the health sector, and a list of these laboratories is being developed. An inter-ministerial working group has been established to

facilitate the survey process in laboratories not under the authority of the Ministry of Health. The same process used to survey the health sector laboratories will be used to survey the other laboratories.

Russian Federation: Plan of action to sustain polio-free status

The Russian Federation has built a successful Polio Eradication Programme, with high levels of polio vaccination, high quality AFP surveillance and a strong national laboratory network. The national plan of action for polio eradication must focus on sustaining these activities in order to sustain polio-free status.

A major focus of the National Plan of Action for maintaining polio-free status in the Russian Federation is the training of health-care workers. This is particularly important in maintaining high-quality AFP surveillance now that AFP targets have been met. In addition to training, site visits will be carried out in selected areas to reinforce the surveillance message.

The polio laboratory network has shown strong and rapid improvement in recent years, and using this network as a model, a new enterovirus surveillance network, based largely on the old virology laboratory network, will be established. There are currently more than 40 000 stool samples tested each year for enteroviruses, but methods used are outdated and quality control is lacking. An environmental surveillance network also tests approximately 10 000 sewage samples each year. It is hoped that the lessons learned in establishing the polio laboratory network for AFP surveillance will speed the institution of new enterovirus laboratory methods and quality control practices. The enterovirus surveillance laboratory network is expected to provide valuable supplementary surveillance information.

Routine immunization levels are relatively high throughout the Russian Federation, but remain low in two problem areas: the Republic of Ingushetia and the Chechen Republic. The Polio Eradication Programme must continue working diligently to raise routine immunization levels in these territories. The national plan of action calls for monitoring of immunization coverage at the district level to detect areas of low routine coverage, and to focus supplementary immunization activities where they will be most effective. Another challenge to maintaining high vaccine coverage levels is posed by migrant populations. For example, children from the Chechen Republic are dispersed throughout Russia. Attempts have been made to establish special registers for these children and ensure that they are provided with preventive health care services including polio immunization.

The Russian Federation's Plan of Action also provides for meeting the WHO regional requirements for laboratory containment of wild polioviruses. A national inventory of laboratories storing wild polioviruses has been established. The next step in containment will be to ensure that all laboratories holding wild polioviruses are operating at BSL-2/polio to minimize risk of accidental laboratory infection.

19, 20 AND
21 JUNE 2002

Private sessions of the RCC

PRESENT:
Sir Joseph Smith, RCC Chairman
Prof. Margareta Böttiger, RCC Member
Prof. Istvaan Dömök, RCC Member
Dr. Walter Dowdle, RCC Member
Dr. George F. Drejer, RCC Member
Prof. Sergey G. Drozdov, RCC Member
Dr. Donato Greco, RCC Member
Prof. Burghard Stück, RCC Member

Dr. Anthony Adams, representative from the Global Certification Commission
Dr. Rose Leke, representative from the Global Certification Commission
Dr. Abdullahi Deria representative from the RCC, Eastern Mediterranean Region
Prof. Ntutu Andrew Mafojane, representative from the RCC, African Region

Dr. Nedret Emiroglu, WHO Regional Office for Europe
Dr. Galina Lipskaya, WHO Regional Office for Europe
Dr. George Oblapenko, WHO Regional Office for Europe
Dr. Steven Wassilak, WHO Regional Office for Europe
Dr. Roland Sutter, WHO Headquarters
Dr. Ray Sanders, WHO Regional Office for Europe, Rapporteur

The Regional Certification Commission (RCC) and invited participants met in private session on 4 occasions during the course of the 15th RCC meeting. Programme of sessions is attached as Annex 1. Not all of the participants listed above attended every session.

The report of private sessions consists of the following sections:

Private meeting of the RCC on 19 June 2002

1) Update on Georgia
2) Update on progress in Bosnia and Herzegovina
3) Review the Documentation required from all countries

Private meeting of the RCC on 20 June 2002 (morning)

4) Updates from Germany, Greece, Ireland and Slovenia.

Private meeting of the RCC on 20 June 2002 (evening)

5) Final review of country documentation and decision on polio-free status of European Region.

Private meeting of the RCC on 21 June 2002

6) Updates on other meetings and future plans

PRIVATE MEETING OF THE RCC ON 19 JUNE 2002

1) Update on Georgia

Following the recommendations of the 14th meeting of the Regional Certification Commission, updated documentation was requested from Georgia on the status of activities surrounding the importation of wild poliovirus, improving immunization coverage and providing documentation for certification.

a) Evidence for control of wild poliovirus importation.
In September 2001, following a 10-year polio-free period, a non-paralytic case of confirmed wild poliovirus infection was detected in Marneuli district, Kvemo Kartli Region, Georgia. The case was clinically diagnosed as viral meningoencephalitis. The patient was a 6-year old under-vaccinated male from an Azeri population group. Virological analysis showed the wild poliovirus to be related to contemporary strains circulating in northern Indian, and therefore an importation into the Region. Epidemiological investigation of the case and his household and hospital contacts revealed no epidemiological link to northern India.

Response to the importation began in December 2001 with enhanced active AFP surveillance and a retrospective review of hospital discharges since January 2001. Through these activities one unreported AFP case was detected, but no additional polio-like or polio-compatible cases were detected. AFP training workshops were held in late 2001 and January 2002, leading to improvements in AFP reporting and stool collection rates. In December 2001 a mopping-up campaign was conducted in the patient's village and 5 adjacent villages. Coverage was reported as 95%. A second round of mopping-up was conducted in the same villages in January 2002, with 98% reported coverage.

In December and January a total of 47 stool samples were collected from household and hospital contacts of the case. All stool samples collected have been tested and found to be negative for wild poliovirus. Serological testing of the 47 contacts showed all had high levels of antibody to all three polio serotypes. From January to April 2002 a nationwide stool survey was carried out, with 740 stool samples being collected from 634 hospitalised and 106 healthy children from 10 regions of Georgia. None of the specimens tested were positive for wild poliovirus, although 20 were positive for Sabin-derived polioviruses and 5 were positive for non-polio enteroviruses. Sewage specimens collected between September 2001 and February 2002 yielded only Sabin-derived polioviruses or non-polio enteroviruses.

In February and March 2002, two rounds of National Immunization Days, targeting children less than 6 years of age, were successfully carried out. Reported coverage was 92.6% and 95.6% for the nation as a whole. At the regional level only 2 regions (Tiblisi and Kvemo Kartili) reported less than 90% in one of the rounds. When analysed by individual reporting units (district of city) 89.4% of units reported coverage >90% in the first round and 92.4% reported coverage >90% in the second round.

Despite the increases surveillance activities undertaken, no evidence for continued circulation of wild poliovirus in Georgia has been detected since investigations began in December 2001.

b) Activities to improve vaccine coverage among children less than 12 months of age.
Considerable efforts are being made to improve timely immunization coverage. OPV3 coverage has risen from 90.5% in 1999 to 93.6% in 2000 and to 97.3% by the end of 2001. However, fear of potential adverse side effects and the use of false contraindications by many health care staff may be delaying delivery of vaccines. To monitor timeliness of vaccinations and to improve performance, new reporting forms have been introduced. Training of district level staff on immunization safety and contraindications to vaccination is planned for the third quarter of 2002.

Seven mobile vaccination teams have been created to increase vaccine coverage in border zones and difficult-to-reach areas. These teams have been carrying out house-to-house vaccination in high-risk areas since September 2001, and have vaccinated more than 2750 children to date.

c) Development of a Plan of Action to sustain high quality epidemiological surveillance and high immunization coverage levels in the period post-certification.

The Plan of Action on maintaining polio-free status has been developed and adopted by the Ministry of Labour, Health and Social Welfare. The plan includes provision for sub-National Immunization Days in the third quarter of 2002, improved coverage in border areas and high-risk groups, and improved routine vaccination through establishment of realistic coverage targets at district level. The plan also proposes increased surveillance activities, through nationwide stool surveys, extending the environmental surveillance programme and instigating enterovirus surveillance. However, these activities will be dependent on availability of resources.

d) Status of the National Wild Poliovirus Laboratory Containment Survey.

The final report for Georgia was submitted to the WHO Regional Office on 24 May 2002. The National Polio Laboratory at the National Centre for Disease Control is the only facility in Georgia possessing potentially infectious materials, and this facility meets current BSL-2/polio biosafety requirements.

e) Additional information from separatist-controlled areas in the Autonomous Republic of Abkhazia and the former Autonomous Oblast of South Ossetia (Tskhinvali region).

The number of children living in these areas is believed to be small (approximately 55,000), and lack of data has little impact on the overall quality of information presented for certification. However, to provide as complete a picture as possible the government has applied considerable effort to gain more information. Abkhazia conducted NIDs in 1995-1997 as part of operation MECACAR, and high coverage was reported. Vaccine has been provided to conduct supplementary immunization activities in 2002, but details of the implementation of these activities have not yet been received. Recent routine OPV3 coverage reports from Abkhazia suggest 75% of the target population was reached in the first 5 months of 2000; a considerable improvement over the past few years. WHO-sponsored training of mid-level health care workers was carried out in early 2002, and more training exercises are planned.

According to reports, one AFP case was detected in Abkhazia in 2000, and this case was transferred to Sochi, Russian Federation for further investigation and treatment.

Information on South Ossetia is more limited. Reported coverage in the 1997 NIDs was 54% in the first round and 64% in the second round. No data is available on current routine coverage levels. Environmental samples collected in late 2001 and tested by the National Polio Laboratory in Tiblisi were all negative for wild poliovirus. Vaccine coverage and AFP surveillance performance are generally good in the countries and areas bordering Georgia, so the probability of neighbouring countries harbouring wild poliovirus is very low.

Conclusions of the RCC:

The Commission acknowledged and commended the efforts made by the National Certification Committee for Georgia in responding to earlier recommendations and suggestions and agree that these recommendations have been effectively carried out. There were no objections or obstacles to fully accepting the updated documentation provided by the National Certification Committee for Georgia.

2) Update on progress in Bosnia and Herzegovina

At its 14th meeting the Regional Certification Commission requested updated documentation from Bosnia and Herzegovina on OPV coverage, improved AFP surveillance performance and laboratory containment activities.

a) Routine polio immunization

There has been a continued improvement in vaccine coverage, and monitoring of OPV3 levels are now carried out on a monthly basis in Bosnia and Herzegovina. Monitoring is still carried out annually in the Republic of Srpska, however, with no indication of the possibility of change in the near future. There has been a steady increase in reported coverage since 1998, with greater than 90% levels reported by all cantons in 2002. There is still some uncertainty, however, over the origins and validity of denominator data used to calculate coverage totals.

b) AFP surveillance performance

WHO-sponsored training courses on AFP surveillance were held in Sarajevo and Banja Luka in April 2002. These courses were aimed at physicians in the field and were attended mainly by paediatricians and epidemiologists. It would be helpful to the national programme if additional training seminars could be held later in the year.

In the first 5 months of 2002 there were 2 AFP cases reported and investigated. Both cases had adequate stool samples collected and found to be negative for poliovirus. An additional "hot" case was detected in Bijeljina, Republic of Srpska, in March 2002. This child went to Belgrade, Yugoslavia, for treatment, where a Sabin-like poliovirus type 3 was isolated from stool samples. There remains some confusion over the exact details of this case, with three different authorities (Bosnia and Herzegovina, Republic of Srpska, and Federal Republic of Yugoslavia) being involved, however, all are confident that this case was not associated with wild poliovirus infection.

c) Laboratory containment of wild poliovirus

A laboratory survey is in the process of being carried out, with 84 government laboratories currently listed. It is believed that a list of private laboratories also exists but this has not yet been submitted. Of

the 84 laboratories contacted, the current response rate is not known, but no laboratories have reported holding wild poliovirus infectious materials, and 24 microbiology laboratories have reported holding potentially infectious materials. Follow-up in completing the laboratory list and getting replies from all laboratories will be needed.

Conclusions of the RCC:

The Commission acknowledges the efforts that have been made under very difficult conditions in Bosnia and Herzegovina. Although the submitted documentation appears sufficient for the immediate purposes, sustaining and extending activities will require long-term support from WHO and the International community. The Commission remains concerned over the ability of national authorities to maintain current coverage and surveillance levels post Regional certification when the risk from importation remains high.

There were no objections to accepting the updated documentation provided by the Bosnia and Herzegovina National Certification Committee.

3) Review The Documentation required from all countries

The Commission reviewed the requirements and status of documentation required from all member states.

a) National Plan of Action for maintaining polio-free status

Although not strictly required for Regional certification, Plans of Action will be needed in the immediate future, and should be either already submitted or in preparation for submission. To date, plans have been received from 45 of 51 member states. Plans have not yet been received from Austria, Greece, Iceland, Luxembourg, Monaco and San Marino. Assurance of commitment to maintaining polio-free status has been received, however, from all of these countries.

b) Progress in containment – national laboratory list and survey results, establishment of national inventories

Good progress is being made on completing the national laboratory surveys and establishing national inventories. Final reports on the survey process have been received from the majority of countries, although confusion over the definition of potentially infectious materials remains for several countries. Completed reports have been received from 40 countries, and progress reports from an additional 8 countries. Assessing the thoroughness and accuracy of the survey and inventory process, however, remains of major concern.

c) Signed statements from National Certification Committees

A formal statement, signed by the members of the National Certification Committee, declaring that all available evidence has been reviewed and the Committee believes their country to be free of circulating wild poliovirus, is required from each member state. These statements have now been received from all countries, signed either by the entire National Certification Committee or by the Committee Chairperson.

PRIVATE MEETING OF THE RCC ON 20 JUNE 2002 (MORNING)

4) Updates from Germany, Greece, Ireland and Slovenia.

The RCC requested presentations from Germany, Greece, Ireland and Slovenia on actions taken to ensure high vaccination coverage and high quality surveillance of selected high-risk groups.

a) Update on Germany

The National Certification Committee was requested to provide additional information on routine vaccination coverage, coverage in high-risk groups, AFP surveillance activities and implementation of the poliovirus containment requirements.

There is a general reluctance to immunize young children in Germany, and the best age group to survey for determination of vaccine coverage rate is the 3 to 5 years group. A serosurvey carried out from March 2001 to March 2002 showed good coverage in both the 3 to 5 years and the 6 to 9 years age groups, and suggests that vaccine coverage has improved in recent years. Recognising the potential risks of unvaccinated and under vaccinated children less three years of age, the Ministry of Health has established a new project with paediatricians to monitor the vaccine status of 2 to 3 year old children. It is intended that any significant gaps in national vaccine coverage will be detected through these surveys.

The only significant high-risk groups in Germany are asylum seekers and recent immigrants, particularly from former Soviet Union countries. Asylum seekers are immunized at the established holding centres, and pose no threat. Recent immigrants are a problem as they are often unaware of the immunization system in Germany, and do not present their children for immunization. This is an area requiring further follow-up.

Performance of the AFP surveillance system has been poor, but has shown improvement in recent months; it is expected that a rate of 0.7 or 0.8 can be achieved this year. Case detection rate improvements have been accompanied by an improvement in the stool collection rate. To improve data management and effectiveness of the system a 2-weekly zero reporting scheme has now been initiated. In support of the AFP surveillance system, an enterovirus surveillance system has been proposed. In the German system, surveillance for notifiable pathogens is funded through the health insurance system, and if enteroviruses can be adopted into the notifiable pathogens list, an enterovirus surveillance system will also be funded. An aseptic meningitis surveillance system is to be started in Lower Saxony, and it is proposed to extend this to other parts of the country. Even though performance of the AFP surveillance system is less than perfect, and supplementary surveillance systems are not yet fully established in many parts of the country, there is 100% access to health services in Germany, and any child with paralysis would be seen and treated by the authorities.

Response to the national laboratory survey has improved greatly since the last submission to the RCC. The response rate is now at 99%, with only 4 responses missing from more than 3600 laboratories contacted. To date 49 laboratories report they have wild poliovirus infectious materials, and of these 14 wish to retain them. A new law on protection against infectious agents has been passed in Germany; this law obliges laboratories to handle wild poliovirus infectious materials under BSL-2 conditions until global certification of wild poliovirus eradication, and them at BSL-4.

b) Update on Greece

The National Certification Committee was requested to provide more information on efforts made to ensure adequate vaccine coverage in high-risk groups and to improve AFP surveillance performance.

Vaccine coverage in the majority population in Greece is high, with the OPV3 level reported as greater than 97%. Exact coverage levels are difficult to assess as approximately 75% of immunizations are given by the private sector. However, there are three major high-risk groups in which vaccine coverage levels are believed to be inadequate: the gypsies, nomads and recent immigrants. Coverage levels are believed to be different in each of these groups, and immunization services must be tailored to meet the specific requirements of each group.

An immunization mopping-up exercise, targeted at the gypsy population, was carried out in 1998 and 1999. This was a multi-antigen activity carried out in three major areas of the country. An intensive health promotion programme has been established to maintain vaccine coverage levels and provide general access to health care facilities to this population. A health promotion programme, in the form of an outreach programme, has also been targeted at the traditional nomad population. This programme has vaccinated more than 6000 children of nomadic families and 540 children of gypsy families in the past 3 years. Recent years have seen an influx of immigrants into Greece, many from neighbouring countries, but also from Asia and Africa. Many of the immigrants are illegal, and attempts are being made to change the legal status of these immigrants and enrol them in the health care system. Health care services, including immunization, are provided in all immigrant holding areas and camps. Recent experience with deprived and high-risk groups has led to a proposal to reorganize primary health care to better cater for the needs of these groups.

AFP surveillance started in Greece in March 1998 and uses a weekly zero reporting system. After a slow start the reporting AFP rate is now approaching 1, but the stool collection rate remains low at 50 to 55%. However, given the generally good access to health care the Committee believes there is a very high probability of any polio or paralytic case being reported and investigated. In support of AFP surveillance data an evaluation of immunization coverage in children 24 to 36 months of age will be carried out. It is intended that this evaluation will be repeated every 3 years.

c) Update on Ireland

The National Certification Committee was requested to provide more information on health-care access, particularly for risk groups such as the Travelling people, continued efforts to monitor vaccine coverage and attempts to improve AFP surveillance performance.

Immunization activities in Ireland are coordinated through the Primary Childhood Immunization Programme, and are intended to cover all population groups. The national Immunization Guidelines were established in 1998, and will soon be due for revision. According to the guidelines, immunization services are primarily delivered through the General Practitioner system, using immunization registers held by each GP's practice. The OPV3 level reported for 2001 was 84%, which is probably an underestimate as data management is poor and in need of revision. Immunization in Ireland is voluntary, and low coverage is blamed on lack of parental awareness and a strong anti-immunization lobby. A major review of the immunization programme carried out in May 2002 revealed the strong need to strengthen the immunization infrastructure, to provide additional support to data management, develop a new communications and information strategy and to improve coordination of activities. To implement the required changes the Irish government has pledged €15 million over the next 5 years for improving immunization services.

At-risk groups in Ireland are the asylum seekers and the Travellers, known locally as Tinkers. Outreach and special clinics are being established for these groups, with mobile clinics established for the Travellers groups. As in other countries with similar groups, specific actions must be targeted at the groups concerned, and public health nurses are being assigned to work with selected populations.

In an attempt to improve and maintain AFP surveillance an active surveillance system is planned for the near future. This will be supplemented by the enhanced enterovirus surveillance system already established.

d) Update on Slovenia

The National Certification Committee was requested to provide more information on coverage levels in high-risk populations and results of AFP surveillance activities.

The main high-risk group in Slovenia is the Roma population, believed to number approximately 8,000 and distributed through 5 regions of the country. An immunization coverage survey of this group was started in the spring of 2002. Of 1000 pre-school and school-age children surveyed, 95% had received at least 1 dose of OPV; 915 had received 3 doses of OPV; and 80% had received 4 doses of OPV. Based on these results it has been decided to enlarge the survey and to include a door-to-door methodology.

AFP surveillance began in Slovenia in 1993 as a monthly zero reporting system. There are currently 10 hospitals involved in the active surveillance system. Based on population size the country expects to detect 3 AFP cases each year, and achieved a detection rate of between 1 and 3 cases each year. The National Committee has noted the general stimulus to the entire EPI programme provided by the requirement to provide documentation on polio eradication. There is full support for polio eradication from the political administration and the medical sector, and the National Certification Committee is confident that no polio or paralytic cases are missed.

Conclusions of the RCC:

The Commission acknowledged and commended the efforts made by the National Certification Committees for Germany, Greece, Ireland and Slovenia in providing additional information for Regional certification. The additional documentation provided meets the requirements established by the RCC, but all countries will need to continue with efforts to improve and maintain immunization coverage and surveillance performance in the years post Regional certification.

PRIVATE MEETING OF THE RCC ON 20 JUNE 2002 (EVENING)

5) Final review of country documentation and decision on polio-free status of European Region.

Having reviewed all documentation provided by the member states of the WHO European Region the Regional Certification Commission was confident that all requirements for certification set at its 14th meeting in Copenhagen in March 2002 had been met. The Commission was happy to announce it's unanimous decision to declare the Region as polio-free.

However, the Commission felt the need for a simple explanation or definition of polio eradication: what exactly had been achieved in Europe, and how should the achievement be described to the member states? The WHO secretariat was requested to follow up on this area. A technical meeting is planned for October 2002 specifically to develop strategies for maintaining supplementary immunization, maintaining surveillance and completing laboratory containment activities. This meeting could also be used to develop a specific definition of polio eradication as it relates to the European Region.

It must also be borne in mind that the task of the polio eradication initiative has not ended, as there remains considerable work to be done in ensuring that the achievements of polio eradication are more thoroughly integrated into the routine public health systems of several countries in the Region. The polio information system, in particular, is an excellent model for developing new health information systems. There is also a need to ensure appropriate feedback to specific countries that they need to improve performance in several areas.

PRIVATE MEETING OF THE RCC ON 21 JUNE 2002

6) Updates on other meetings and future plans

The RCC was provided with updates on recent meetings and developments in other Regions and with proposals for future activities.

a) Global Certification Commission Meeting, Geneva, April 2002.

From the Region of the Americas, the meeting was given an account of improved surveillance and immunization coverage activities in Haiti and Brazil following concerns over declining performance in the face of continued risk of both importation of wild poliovirus and generation of vaccine-derived poliovirus outbreaks. Since Regional Certification in 1994 the Regional Certification Commission and the National Certification Committees have lapsed or disbanded. There is now, however, a requirement for all member states in the Region to provide information demonstrating that the Region has remained polio-free. It is intended that the National Containment Committees, now being formed in each country, will form the basis of the reconstituted National Certification Committees.

A progress report, provided by the Chairman of the European RCC, was well received. The Western Pacific RCC reported on activities post Regional Certification, commenting that progress with containment was slow. The Eastern Mediterranean RCC described progress in polio eradication in the Region, describing problems encountered in Egypt and Pakistan. The South East Asian RCC described progress in polio eradication in India, and raised concerns over the coordination of eradication activities between India and Pakistan. The African RCC, still at an early stage of development, described progress in polio eradication in remaining endemic countries. As yet, only 17 of the 46 countries in the Region have appointed a National Certification Committee, a situation requiring urgent rectification. A proposal has been made that the next meeting of the Global Certification Commission (GCC) should be held in the African Region.

Progress in implementing laboratory containment of wild poliovirus stocks was reviewed and discussed, together with the proposed publication of a second edition of the Global Action Plan on Containment and the pressing need for tools to assess the quality of containment activities. The current status of vaccine-derived poliovirus (VDPV) activity was reviewed, and the Commission were relieved that no additional outbreaks had been detected up to April 2002.

The GCC is concerned that global certification of polio eradication will be regarded by some as a signal for the cessation of polio immunization, rather than a signal for the start of a process that may lead to a cessation of immunization. Further open discussion of post Certification policies, activities and possibilities are urgently needed, together with an acceleration of the research programme currently addressing the issues that will be encountered post Certification.

Another area for concern for the GCC involves the adoption of standard rules for membership of the different commissions and committees engaged in the certification process. With several individuals now serving on more than one committee or commission, and in some cases also being active in implementing the eradication process, the potential for a conflict of interests to arise has increased. In general, there is considered to be no obstacle to members of Regional Commissions also serving on the Global Commission, providing that as members of the GCC they forfeit the right to vote on matters concerning their own Region. Concern remains, however, over members of National Certification Committees that also serve on Regional Commissions, and anyone actively involved in implementing polio eradication activities while serving as a Regional Commission member in their own Region. WHO/HQ is to review the requirements for establishing commissions and committees, and also the rules for membership to these bodies. Attempts are currently being made to map the various committee and commission memberships to determine exactly where any potential conflicts of interest exist. It is essential for the public credibility of the certification process that the technical and effectual aspects of polio eradication are seen to be separate from the normative and judicial aspects. For information, members of the Regional Commissions are appointed by the WHO Regional Directors, and the WHO Director General appoints members of the Global Commission. Regional Commissions report to the Regional Directors, but the WHO Regions operate on behalf of the Director General.

On a related issue, the GCC is concerned over its current small size and composition, and is actively seeking to recruit new members. In particular, female members are required to redress the current gender imbalance.

b) Experience in the Western Pacific Region 18 months after Regional Certification

The Western Pacific Region was declared polio free in October 2000. In November 2000 the first cases from the vaccine-derived poliovirus (VDPV) outbreak in Haiti and the Dominican Republic were being reported. After the Region of the Americas had been declared polio free in 1994 the RCC was disbanded. Questions have subsequently been raised regarding possible links between the withdrawal of that commission's overview of polio eradication activities and development of the conditions that resulted in the outbreak. The Western Pacific Region has determined that a similar outcome should not be allowed to occur in their region; the RCC has been maintained and member states have been requested to provide annual reports on polio eradication activities.

Countries have been recommended to remain on alert for possible VDPV outbreaks, and to maintain AFP surveillance and supplementary immunization to protect against importation of wild poliovirus. Reports on the results of AFP surveillance, surveillance performance levels, and potential build-up of compatible cases are still required on a monthly basis. Several countries in the Region, particularly those with areas of sub-optimal routine OPV coverage, are required to continue with supplementary immunization activities, and coverage reports continue to be required from all countries. Monthly reports from each country are summarised in the WHO Regional Office and presented in composite format to the RCC.

That the Region continues to actively pursue polio eradication goals was demonstrated by the discovery of VDPV-associated polio cases in the Philippines in 2001. The first case was efficiently detected and characterized through the routine AFP surveillance system, and enhanced surveillance rapidly located other cases. The outbreak appears to have been effectively controlled through local mopping-up immunization and nation-wide National Immunization Days. No new cases have been detected since September 2001.

Containment of laboratory stocks of wild poliovirus is progressing in the Region; although progress appears slow in China, Korea, Japan and Australia. All countries that have yet to complete the national laboratory survey and inventory process have been contacted and provided with requirements to complete the process within the coming few months. It has been essential for the RCC to maintain pressure on countries to ensure they complete the tasks required for global certification.

c) Information on a meeting of the Technical Consultative Group, Geneva, April 2002

The meeting reviewed progress made in polio eradication over the past 12 months, and considered the plans for the next year, particularly with regard to personnel and funding issues. The Strategic Plan 2001-2005 was reviewed, together with proposed revisions for 2002-2003. The Technical Consultative Group (TCG) agreed that the European Region had met the general objectives for certification, but stressed the importance of maintaining polio free status in the next few years.

The TCG strongly supported continued supplementary immunization activities in high-risk countries and in low coverage areas, but effective planning of these activities has become essential to ensure that funding and vaccine shortfalls do not occur. Within the global polio eradication initiative there is currently a cash-flow shortfall of US$ 60 million to the end of this year. The situation in 2003 looks better as the World Bank and Rotary International plan to provide substantial funding support. The current funding gap needs to be filled, however, and DFID is planning to host a meeting to raise awareness of the funding shortfall.

One area of concern remains the post certification immunization policies adopted by countries, linked to the ability of countries to detect and respond appropriately to potential reintroductions of wild poliovirus. A research programme addressing many of the most relevant questions surrounding post eradication immunization policy is being coordinated by WHO. However, there is a need to open the debate to a much wider audience, particularly to public health, epidemiological and scientific staff not directly involved with the polio eradication initiative. Fora need to be established to discuss the various options available for adoption in each geopolitical block. Such a forum, recently held in Annecy France, was very useful in revealing the perceptions of a much broader section of society with regard to polio eradication and the possibility of stopping polio immunization post eradication.

The TCG was also concerned that the polio eradication initiative should be playing a stronger role in health systems strengthening. In particular, there needs to be a stronger linkage between the goals of the polio eradication and EPI programmes. Although progress is being made, more needs to be done to ensure the programmes are acting in concert rather than in opposition. An obvious initial step is to link AFP surveillance systems with surveillance for neonatal tetanus and measles.

d) Information from the 8th meeting of the Eastern Mediterranean RCC

Two members of the European RCC, who were also invited to attend a private meeting of the RCC as observers, attended the meeting. The meeting reviewed progress in currently polio-free countries in the Region, but little discussion was given to the 5 polio-endemic countries. The procedures for receiving reports and reviewing presentation materials used by the Eastern Mediterranean RCC are essentially the same as those used in the European Region.

One member of the European RCC has raised concern over the limited effectiveness of members of other Commissions being invited solely as observers. A call was made for more effective exchange of members between Regions and more open sharing of information from member states. The more open the process is made the more opportunities are presented to question or validate the information provided by the countries. Since the Regional Commissions tend to work together as self-contained teams it would be difficult to fully integrate a member from another Commission, but the sharing of documents and information could be more effective than at present. In the open meetings it is clearly of advantage to the initiative to ensure openness and free-exchange of information, but it is essential to restrict the decision-making process to the permanent members of the Commission. This could be achieved by holding small private meetings of the RCC in the absence of any parties with a vested interest in the meeting outcome. Although there is probably no single solution, and the different Regions will arrive at their own solutions, it is essential to promote and stimulate cross-fertilization of ideas on polio eradication, certification and post certification policies.

e) Format for annual country updates to the RCC

Every country in the Region will be required to provide an annual update on polio eradication activities to the RCC. The WHO Secretariat proposed the following components for these updates:

1. Immunization activities

- Vaccination coverage for the most recent year available (national average and a list of territories with coverage less than 80%)
- Report on any supplementary immunization activities (reasons for activities, locations, size and nature of target populations, coverage achieved, etc.)
- Description of coverage levels in any high-risk sub-population groups and actions taken to improve coverage

- Descriptions of any serosurvey or coverage surveys carried out
- Descriptions of any changes in the routine immunization policy (e.g. changing from OPV to IPV)
- Any additional information or comments related to immunization activities

2. AFP Surveillance activities

This section is only directed at countries carrying out AFP surveillance. Countries that do carry out AFP surveillance should provide additional documentation on supplementary surveillance activities.

- AFP surveillance quality indicators at national level
- Geographic distribution of AFP cases (Table or map of reported/expected cases)
- Description of any "hot" cases and actions taken in response
- Final case classification on all AFP cases
- Data on any polio-compatible cases (line list, investigation reports, actions taken)
- Updates on any special actions taken to enhance surveillance in high-risk areas and sub-populations
- Laboratory quality assurance results (for any sub-national laboratories involved with AFP surveillance
- Report on isolation of polioviruses and results of identification (methods used, number of stools tested from AFP cases and number of stools tested from non-AFP, number of polioviruses isolated and number of polioviruses forwarded to a Reference laboratory for ITD, results of ITD testing of all poliovirus isolates)
- Report on investigation and control of any importation of wild poliovirus or VDPV outbreak
- The number of VAPP cases and descriptions of the cases
- Any additional information or comments related to AFP surveillance

3. Supplementary surveillance

- Details and results of enterovirus surveillance activities carried out (WHO-specified format)
- Details and results of environmental surveillance activities carried out (following WHO guidelines)
- Any other information or comments related to supplementary surveillance

4. Containment activities

- Updated information on national laboratory survey and inventory process
- Results of any containment quality assurance activities carried out (using WHO guidelines)
- Details of any stocks of wild poliovirus destroyed of moved to BSL-3/ polio facilities
- Any other information or comments related to containment

5. Follow-up on RCC recommendations

- Details on activities resulting from recommendations made by the RCC
- Number of NCC meetings held and summaries of main conclusions and recommendations from those meetings
- Any other information or comments related to RCC recommendations

Details of the annual reports will be developed by the WHO secretariat and presented to the RCC for comment at a future meeting.

a) Plan of Action for the RCC in 2002 and 2003

The WHO Secretariat presented a timetable of activities proposed for 2002 and 2003. The RCC will present its report on the polio-free status of the European Region to the WHO Regional Committee at its meeting in September, and it is essential that all documentation is finalised well in advance of that meeting.

Of immediate concern is the requirement for follow-up with remaining countries on national Plans of Action to maintain polio-free status. It is intended that workshops will be held in selected countries to provide governments with indications of how these plans can be implemented. There will be a meeting to develop future polio eradication strategies for the European Region in October, and this meeting will be used to develop and discuss proposals for post global certification immunization strategies.

From October to December 2002 there will be follow-up on countries that have not yet completed the laboratory surveys and inventories required for containment of wild poliovirus. It is possible that containment visits will be required to some of the more problematic countries. There will be a requirement early in 2003 to train selected consultants in assessing the quality of containment activities using the tools currently being developed.

The 16th RCC meeting will be held in March 2003, and it is intended that this meeting should be held in conjunction with either an EPI managers meeting or a meeting of MECACAR countries. There is an increasing requirement to link AFP surveillance with surveillance for other EPI diseases, and this will be progressively attempted through 2003. The WHO secretariat will further develop the Plan of Action for the RCC and provide it for comment later in the year.

The European Regional Certification Commission and WHO Polio Eradication Team. WHO/EURO, Copenhagen, 21 June 2002.

From left to right, (front row): Prof Sergey G. Drozdov, Dr Nedret Emiroglu, Dr George F. Drejer, Prof István Dömök, Ms Tanya Michaelsen, Dr Walter Dowdle, Ms Johanna Kehler, Prof Margareta Böttiger, Sir Joseph Smith, Dr Daniel Tarantola, Dr Galina Lipskaya, Dr Helena Kopecka, Ms Sharon Steele. From left to right, (back row): Prof Burhard Stück, Dr Steven Wassilak, Dr Ray Sanders, Dr George Oblapenko, Dr Donato Greco, Dr Roland Sutter, Ms Julie Jenks, Dr Rafi Aslanian.

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ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ
ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

Fifteenth Meeting of the Regional Commission for the Certification of Poliomyelitis Eradication

5037088/4

Copenhagen, Denmark, 19 - 21 June 2002

Programme

Wednesday, 19 June 2002

16.30–18.00 **Private meeting of the Regional Certification Commission (RCC)**
Review of updated national documents

Thursday, 20 June 2002

08.30-10.00 **Private meeting of the Regional Certification Commission**
Review of updated national documents

09.30-10.30 Registration of all participants

10.30 Opening of the plenary session by the Chairman of the RCC

10.45 **Plenary session 1: Current situation in the European Region, in the Eastern Mediterranean Region and globally**

10.45 Sub-Regional Overview 1

11.05 Sub-Regional Overview 2

11.30 *Coffee break*

12.00 Sub-Regional Overview 3

12.20 Sub-Regional Overview 4

12.40 **Importations of wild poliovirus into countries of the Region: lessons learned (WHO/EURO)**

13.00-14.00 *Lunch break*

14.00 Progress towards eradication of poliomyelitis in the Region (WHO/EMRO)

14.30 Regional overview: are we ready for the certification (WHO/EURO)

15.00 Discussion

15.30 *Coffee break*

16.00 National immunization programmes in the European Region (WHO/EURO)
Discussion

17.00 Closure

17.30 **Private meeting of the Regional Certification Commission**
Review of updated national documents

Friday, 21 June 2002

09.00	Statement by the Regional Certification Commission
09.15	**Plenary Session 2: Aspects of post-certification activities** - Poliomyelitis eradication: global progress, post certification strategies and plans (WHO/HQ)
09.45	Discussion
10.00	***Coffee break***
10.30	Discussion continued
11.00-13.00	**Updated country experience:** (20 min. presentation and 10 min. discussion)
11.00	Environmental surveillance, its use for supplementing AFP surveillance in monitoring at risk localities or groups of sub-population (Netherlands)
11.30	The role of enterovirus an laboratory network in surveillance (Spain)
12.00	Containment: national actions after meeting Phase 1 certification requirements (France)
12.30	Plans to sustain the "polio-free" status (Russian Federation)
13.00	Closure by the Regional Certification Commission
13.00-14.00	***Lunch break***
14.00	**Private Meeting of the Regional Certification Commission. Closed Session**

NB: If, after due consideration of the presentations made, the Regional Certification Commission finds itself in a position to declare the 51 Member States of the WHO European Region as polio-free, it is foreseen that there will be an official ceremony in the early evening of 21 June 2002 (between 18.00-21.00 hours) to celebrate this historic event.

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ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

Private Meetings of the RCC
Fourteenth Meeting of the Regional Commission for the Certification of Poliomyelitis Eradication

Copenhagen, Denmark, 19 - 21 June 2002

5037088/4

Provisional programme

Wednesday, 19 June 2002

16.30-18.00 **Private meeting of the Regional Certification Commission**

Georgia: final report on the control of wild poliovirus importation (30 min.)

Bosnia and Herzegovina: report on the implementation of the RCC recommendations (30 min.)

Review of updated documents

Thursday, 20 June 2002

08.30-10.00 **Private meeting of the Regional Certification Commission**

Session with selected countries: Germany, Greece, Ireland, Slovenia (10 min. each for presentation on actions taken to ensure high vaccination coverage and high quality of surveillance in risk groups of sub-populations).

17.00-20.00 **Review of updated documents (cont.)**

Private meeting of the Regional Certification Commission

Friday, 21 June 2002

10.00-11.00 Press Conference

14.00 **Private meeting of the Regional Certification Commission – Closed Session**

Information on the Global Certification Commission Meeting, Geneva, April 2002

Format for annual country updates to the RCC

Plan of Action for the RCC in 2002-2003

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ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

Fifteenth Meeting of the Regional Commission for the Certification of Poliomyelitis Eradication

5037088/4

Copenhagen, Denmark, 21 June 2002

Ceremony at the Ny Carlsberg Glyptotek

18.00 PLENARY SESSION of the Regional Certification Commission (with representatives of European Member States, partners, experts and WHO staff)

Opening by Dr Mark Danzon, Regional Director of WHO/EURO

Opening by Sir Joseph Smith, Chairman of the Regional Certification Commission

Statement of the Regional Certification Commission

Signing of the Certificate (with musical entertainment)

Dr Marc Danzon, Regional Director of WHO/EURO

Statements from Partners:

- Rotary International: Mr Rudolf Hörndler
- CDC Atlanta: Dr David Fleming
- UNICEF: Mr Philip O' Brien
- USAID: Ms Ellyn Ogden

WHO/Headquarters: Dr Daniel Tarantola

WHO/EURO Secretariat: Dr George Oblapenko

19.00 – 21.00 RECEPTION in the Winter Garden

THE REGIONAL SUMMARY:
ANALYSIS PRESENTED TO THE REGIONAL COMMISSION FOR THE CERTIFICATION OF POLIOMYELITIS ERADICATION

Epidemiological Review of Data Submitted by National Certification Committees to the European Regional Commission for the Certification of Poliomyelitis Eradication

Review and Analysis by Sub-Regional Zones

George Oblapenko, M.D.,
Steven Wassilak, M.D.,
Nedret Emiroglu, M.D.,
Galina Lipskaya, Ph.D.,
Eugene Gavrilin, Ph.D.,
Mary Agocs, M.D.,
Louise Gare, M.P.H.

WORLD HEALTH ORGANIZATION REGIONAL OFFICE FOR EUROPE

COPENHAGEN, DENMARK
20 – 21 JUNE 2002

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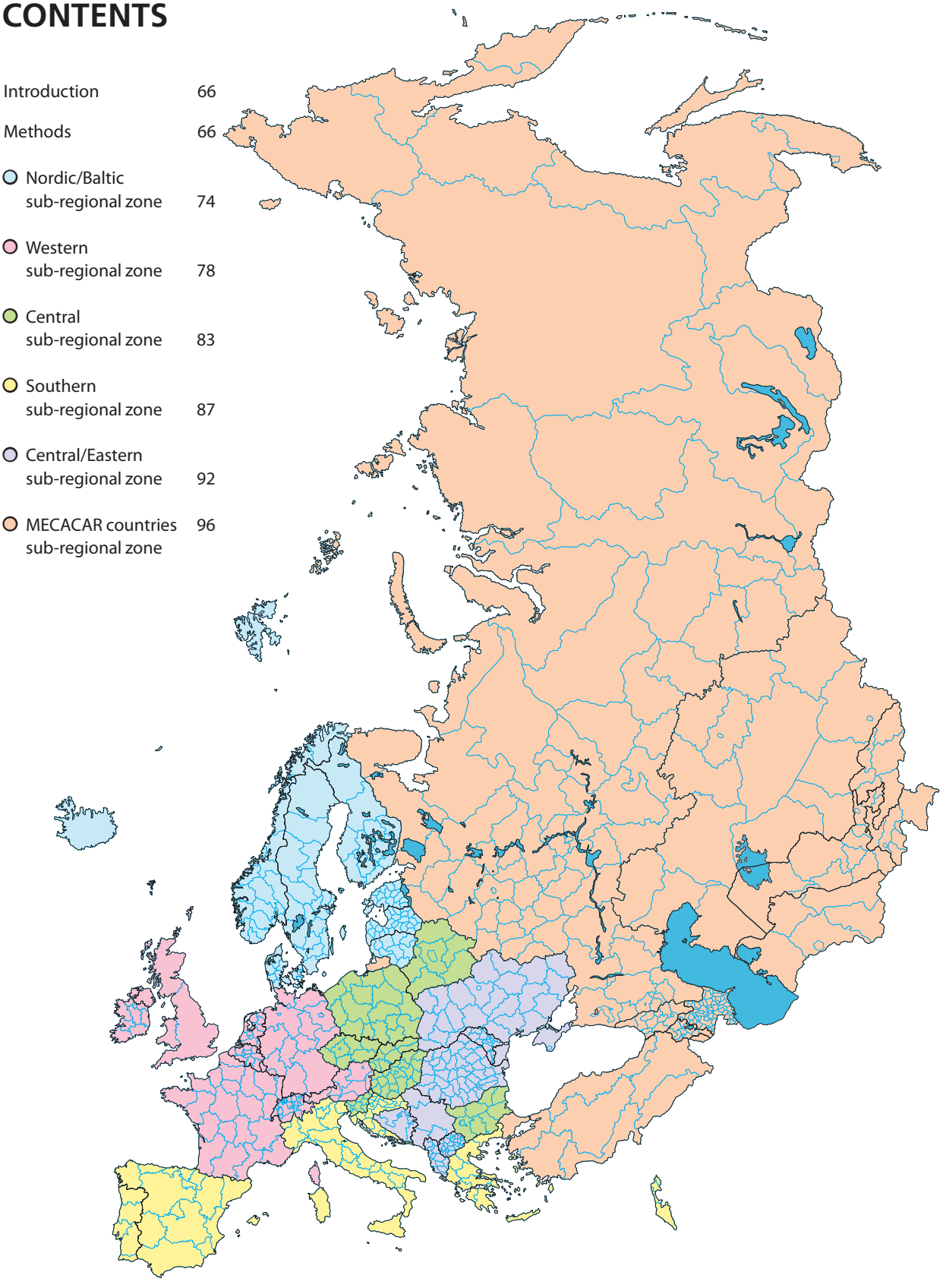
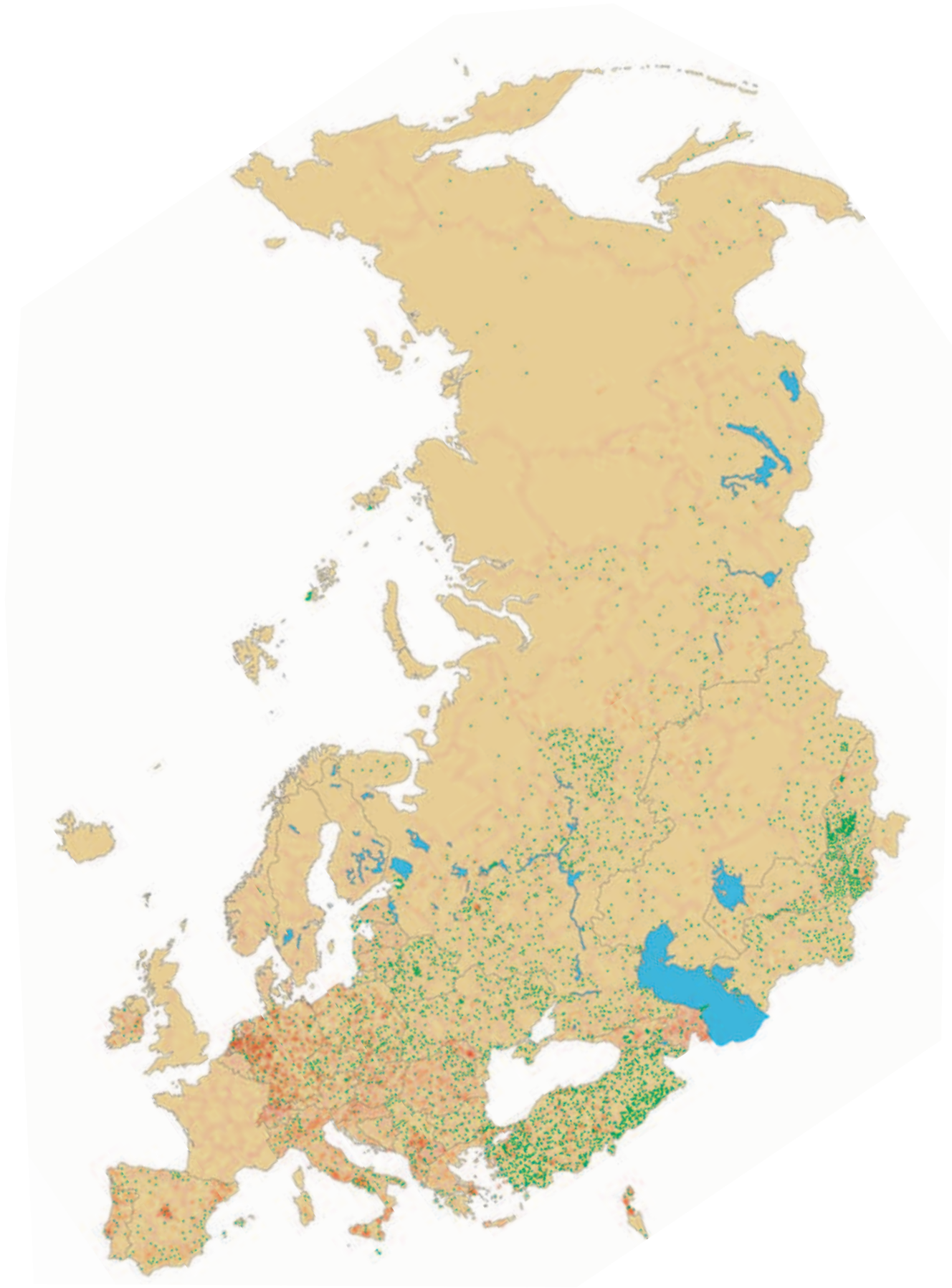




INTRODUCTION

This document presents an epidemiological analysis of all available data as a basis for a judgement regarding interruption of the transmission of indigenous wild poliovirus in the WHO European Region. It is presented as such Member States are divided into six sub-regional zones, as planned by the Regional Certification Commission in 1996. Since the last case of confirmed poliomyelitis due to indigenous wild poliovirus occurred in November 1998, the assessment was done for 1999 to the present (as of 19 June 2002).

These sub-regions are:
1. Nordic/Baltic
2. Western
3. Central
4. Southern
5. Central/Eastern
6. MECACAR, Russian Federation

The sub-regional zones of Central/Eastern Europe and the MECACAR, Russian Federation countries were considered as recently endemic countries. This group of recently endemic countries reported indigenous poliomyelitis cases after 1990 (and/or were under conflict situations and/or border countries that reported poliomyelitis cases after 1990). This review and analysis consists of the following 10 components:
1. Overview of Health Services,
2. Polio Vaccines Used, Routine Immunization Coverage, Supplementary Immunization,
3. Vaccine-Associated Paralytic Polio (VAPP), 1999 through 2001,
4. Detection of poliovirus circulation: acute flaccid paralysis (AFP) surveillance and supplementary surveillance information;
5. Last polio cases and/or isolation of wild poliovirus;
6. Importations of wild poliovirus (and subsequent actions taken following recent importations);
7. Assessment of potential risk for poliovirus spread following an importation;
8. Containment status;
9. Sustainability of "polio-free" status,
10. Conclusion.

METHODS

National Certification Committees and country counterparts submitted several items of documentation to the Regional Certification Commission. Each Member State's national committee submitted the Manual of Operations during 1999-2001. Responses to questions and comments from the Commission were submitted in the interim from selected Member States. All countries and areas provided a comprehensive update by January 2002. Direct communication with country authorities and Ministries of Health, and other information sources for background data are noted below. The information sources are listed below (underlined) for the summary of data to follow.

The WHO Regional Office for Europe reviewed all surveillance and immunization data and discussed these with the Regional Certification Commission during every meeting. Following the comprehensive updates of information from countries provided in January 2002, these data were used to allow WHO to make the assessments to follow. The conclusions presented are the judgment of the WHO Regional Office for Europe.

1. OVERVIEW OF HEALTH SERVICES

- **WHO Health for All dataset:** The Infant Mortality Rate (IMR) and the number of physicians (MD) per 100,000 total population as provided by national central statistical offices to the WHO Regional Office for Europe.
- **UNICEF's *State of the World's Children 2002:*** IMR and mortality rate for children under 5 years of age as estimated by UNICEF.

Note: IMRs from WHO and UNICEF sources differ markedly in some countries. WHO receives information from national statistical units. Since the 1990s, there has been incomplete registration of some births and deaths particularly in the central Asian republics and Caucasus countries that were affected by war or economic crisis. The statistical definition of IMR in former USSR countries differs from the WHO definition. Hence, the real IMR in some Newly Independent States can be 10-80% higher than the official figures. UNICEF data in the central Asian republics and Caucuses countries utilize Demographic and Health Survey information.

- **WHO's *World Health Report 2000:*** WHO (Geneva) introduced a new Health System Status indicator in 2000 that attempts to score each country's health system. The 2000 report provides information on the 1997 status of health systems. The indicator is a composite measure of achievement in level of health, the distribution of health, the level of responsiveness, the distribution of responsiveness and fairness in financial contribution. All European Region Member States have health systems scores ranked among the best 75% of all countries globally. The Health System Status Indicator for the European Region Member States was then ordered by rank and divided into quartiles; 'Very good' countries have health systems scores ranked in the upper two quartiles of European Member States, 'good' countries have health systems scores among next lowest quartile of ranked European Member States, and 'satisfactory' countries have systems in the lowest quartile of ranked European Member States.

2. POLIOVIRUS VACCINES USED, ROUTINE IMMUNIZATION COVERAGE AND SUPPLEMENTARY IMMUNIZATION ACTIVITIES

- The national policy on vaccines used to prevent poliomyelitis for each Member State was reported to the WHO Regional Office for Europe in the 2001 annual reports by immunization programme managers from the WHO / UNICEF Joint Reporting Form.
- Immunization levels are reported from countries using the data sources below. However, immunization data reported has often been found to not to be representative of overall child immunity levels, particularly regarding timely vaccination by one year of age. In this regard, other sources of data have been used by country authorities or by international consultants to assess the validity of official data on percentage of children immunized by doses administered.
- **WHO Health for All dataset:** Percent of children immunized with three doses of poliovirus vaccine at one year of age for 1998 and 1999 were provided to the WHO Regional Office for Europe by national central statistical offices. If no HFA data were available, national certification committee documentation data were used.
- **WHO / UNICEF Joint Reporting Form:** Percent of children immunized with three doses of poliovirus vaccine at one year of age for 2000 and 2001 were provided to the WHO Regional Office for Europe in the annual survey of immunization programme managers. If no data were available as of 19 June 2002, national certification committee country documentation data were used or the data were considered unavailable.

- **Applications for the Vaccine Fund administered by the Global Alliance for Vaccine and Immunization (GAVI):** For the eleven Member States of the Region eligible for support from the Vaccine Fund, applications could include survey data on immunization coverage. These data were also used to evaluate officially reported immunization levels by the previous means (above) to estimate population immunity.
- **European Observatory on Health Care Systems** of the WHO Regional Office for Europe provided data on the progress of health care reform in Member States.

3. VACCINE-ASSOCIATED PARALYTIC POLIOMYELITIS (VAPP), 1999 THROUGH 2001

- This information is based on cases of suspected VAPP (vaccinee, contact or community-acquired) reported to the WHO Regional Office for Europe, updated based on individual inquiry to surveillance authorities in each country in 2001, corrected as of 19 June 2002. The WHO Regional Office for Europe recommended a case definition for VAPP in 1997, which requires notation of residual paralysis or death (or loss to follow-up), and isolation of Sabin-like poliovirus.
- In order to standardise the data presented and due to the unavailability of data regarding first doses or total doses distributed, an index of the frequency of VAPP was derived by determining the number of VAPP cases meeting the WHO recommended case definition per million surviving infants per year.
- Data for years prior to 1999 have been collected but have not been rectified for all countries. Cases of reported VAPP prior to 1999 were considered for assessment of overall surveillance sensitivity.

4. DETECTION OF POLIOVIRUS CIRCULATION: AFP SURVEILLANCE AND SUPPLEMENTARY SURVEILLANCE INFORMATION

- There are three types of surveillance applied for the certification in the Region: AFP surveillance – used in majority of countries; surveillance for Enteroviruses (EV) and environmental surveillance.
- Acute Flaccid Paralysis (AFP) data reflect the information submitted weekly by national authorities to the WHO Regional Office dataset and may in some differ from documents submitted by national certification committees. The AFP index is the multiple of the non-polio AFP rate per 100 000 children under 15 years of ages (up to 1.0) and the percent of adequate specimens collected within 14 days of onset.

Note: adequate specimens are two faecal specimens within 14 days for recently endemic countries (standard index), one specimen within 14 days for non-endemic countries (modified index, also used for sub-national data for all countries).

- Data for 2002 are provisionally included, with reporting as of week 23, ending 7 June 2002 and the non-polio AFP rate per 100 000 children has been annualised.
- All laboratory testing of specimens from AFP cases in 2000-2001 were conducted in WHO-accredited laboratories. Some specimens in 1999 from Ukraine and Uzbekistan were not tested in WHO-accredited laboratories but all polioviruses isolated from such cases were characterized in the relevant regional poliovirus reference laboratory. More than 7000 stool samples have been tested in the Regional polio laboratory network during 1999-2001: no indigenous wild poliovirus have been found (Figure 1).
- Using the AFP surveillance performance indicators, two types of maps were derived that indicated sub-national modified AFP surveillance index by sub-national first administrative level population distribution. With the multi-coloured maps, areas with low population (with one or fewer

expected AFP case for the 1999-2001 period based on the expected 1 per 100 000 per year) were not scored if no cases with adequate specimens were reported. A dot map was also produced using the expected number of AFP cases for the 1999-2001 period for each sub-national first administrative level. If the expected number of AFP cases (or more) were reported and adequate specimens taken in the sub-national first administrative level, the dot was coloured green. If the expected number was not reported in the sub-national first administrative level or adequate specimen not taken, the difference between the number expected and the number found was determined and the dot coloured red.

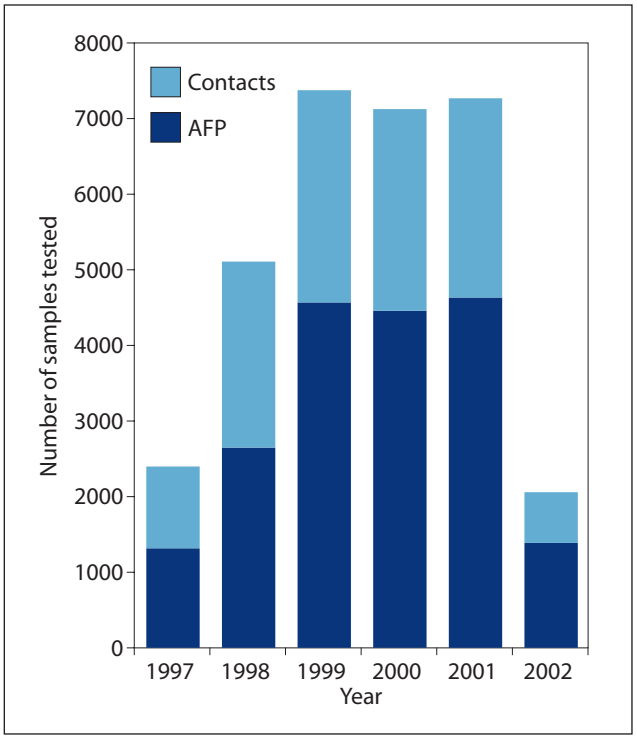


Fig. 1. Regional Polio LabNet Workload 1997 – April, 2002

- Additional enterovirus (EV) surveillance and environmental surveillance information was obtained from the certification documentation provided in January 2002 and updated by additional submissions for some countries through 19 June 2002. When information was obtained through the national polio laboratory counterpart, this is noted in the accompanying text.
- Most of the Newly Independent States of the former Soviet Union do not have systematic sampling for enterovirus testing. For those that have maintained a laboratory network, there is generally not a validated system for quality assurance nor standardisation in virologic technique for testing conducted in sub-national laboratories outside the regional poliovirus laboratory network; therefore, these data are not presented.
- Supplementary EV information included both surveillance systems that routinely collect specimens (clinical specimens from ill individuals or also including well individuals) and faecal specimen surveys of well or ill individuals, and were indicated in the tables. For enterovirus surveillance, the data presented represent testing of faecal specimens, if available; if all clinical specimens were used, this was noted in the accompanying text. Ratios of total population to each specimen tested were presented for those countries where information was provided to judge that there was a routinely functioning laboratory network surveillance system. Ratios reflected the total population unless noted in the accompanying text if data are only presented for under 15 years of age.
- Supplementary surveillance (particularly surveillance for EV) is well established in many countries of the Region (see overview by epidemiological zone). The European RCC discussed the issue of supplementary surveillance (both EV and environmental) in 2000 and decided that such data can be used for the certification. Through the network of laboratories involved in EV surveillance more than 158 000 stool samples have been investigated during 1999-2001 with negative results for indigenous wild poliovirus (Figure 2).
- Special efforts have been undertaken to assess likelihood of circulation of indigenous wild poliovirus in countries of the Region. Such assessment was based on "composite surveillance index, 1999-2001".

The criteria for determining the lack of indigenous wild poliovirus transmission included health system appraisal for access to hospitalisation for paralysis, AFP and supplementary virological surveillance data, detection of VAPP and imported poliomyelitis cases during 1999-2001, routine and supplementary immunization activities and length of time since the last reported poliomyelitis case (table 1).

- The likelihood of undetected indigenous wild poliovirus circulation from 1999 to present is assessed as VERY LOW, LOW, MEDIUM or HIGH, depending on meaning of the "composite surveillance index".
- Results of assessment: the likelihood of indigenous wild poliovirus circulation in the European Region during 1999-2001 is found to be VERY LOW (Figure 3).

5. LAST POLIO CASES AND / OR ISOLATION OF WILD POLIOVIRUS

- Information was collected from 1999-2001 Manuals of Operation, country updates, including the comprehensive updates in January 2002 and by direct contact with surveillance authorities for some countries. Map, reflecting last indigenous wild poliovirus case by epidemiological zone, presented as Figure 4.
- Imported cases are those in persons with exposure/infection outside the country; import-related cases are those in persons in contact with persons with exposure/infection outside the country.
- For 1999-2001, importations of wild poliovirus from endemic areas as determined by genomic analysis were also handled as import-related cases.

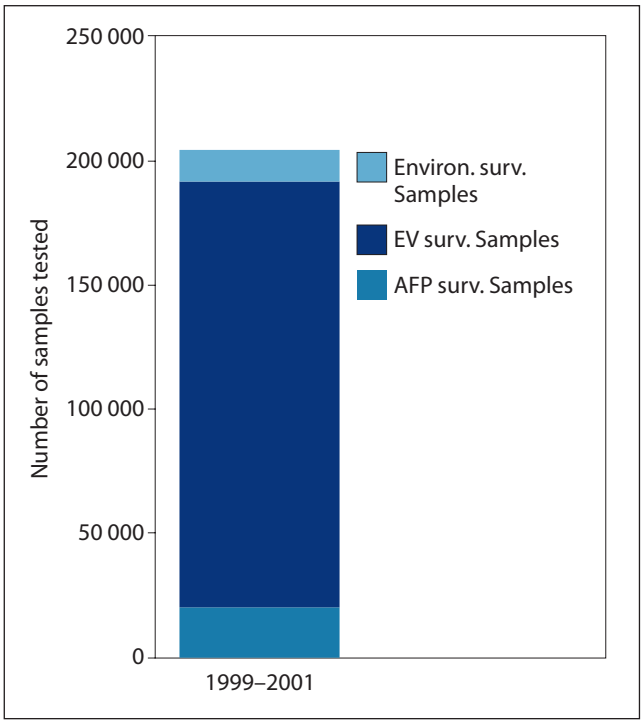


Fig. 2. Total number of samples tested negative for wild poliovirus, 1999–2001

Criterion	Score
Health Services = S	0
Health Services = G	1
Health Services = VG	2

Number of years since last reported indigenous polio case	
< 5 years	0
5-9 years	1
10-19 years	2
≥ 20 years	3

Criterion	Score
No AFP surveill., index = 0	0
AFP index >0 - 0.59	1
AFP index 0.6 - 0.79	2
AFP index 0.8 - 1.0	3
EV testing	1
Systematic, QA EV Surveill.	2
QA Environ. Surveillance	1

Table 1. Criteria for Composite Surveillance Index, 1999-2001

Fig.3. The likelihood of indigenous wild poliovirus circulation in the European Region, 1999-2001.

Very low

6. IMPORTATIONS OF WILD POLIOVIRUS (AND SUBSEQUENT ACTIONS TAKEN FOLLOWING RECENT IMPORTATIONS)

- Imported wild poliovirus is defined as poliovirus with genomic sequencing data to indicate introduction from poliovirus reservoirs/endemic areas.
- Critical virological surveillance data and outbreak response information were collected to assess whether poliovirus circulation occurred over an extensive geographic area and/or over time (i.e., over 6 or more months)
- Information was collected from WHO technical missions, country updates and supplemental documentation requested from countries with recent importations (Bulgaria and Georgia).

7. ASSESSMENT OF POTENTIAL RISK FOR POLIOVIRUS SPREAD FOLLOWING AN IMPORTATION

- The potential risk for spread of poliovirus following an importation was determined through analysis of the strength of the surveillance system, including AFP surveillance performance indicators, the population immunity based on routine and/or supplemental immunization coverage, the presence of sizable vulnerable or high-risk populations and level of sanitation.
- Risk is assessed as LOW, MEDIUM or HIGH.
- The potential risk is LOW in vast majority countries (Figure 5). Countries in medium risk are: Azerbaijan, Georgia, Greece and Uzbekistan. There are only few countries/areas, which are considered

Fig. 4 European Region – Last indigenous wild poliovirus case by epidemiological zone

as high risk for spreading wild poliovirus in case of importation: Bosnia & Herzegovina, Netherlands, Northern Caucasian Region of Russian Federation, Tajikistan and South-Eastern Regions of Turkey.

8. CONTAINMENT STATUS

- The containment status was collected from progress reports from national containment coordinators as of 19 June 2002 or final reports received as of 19 June 2002 and signed by a representative of the Ministry of Health.
- Data are presented for those countries in which the laboratory survey indicated wild poliovirus stocks were held and whether they are handled in biosafety level 2 (BSL-2) equipped facilities.

9. SUSTAINABILITY OF POLIO-FREE STATUS

- Based on comprehensive plans of action submitted by 19 June 2002 and signed by representatives of the ministries of health following recommendations of the 14th meeting of the Regional Certification Commission or on statements of intent, submitted by country authorities in January 2002 or subsequently.

10. CONCLUSION

- All of the above surveillance and immunization data were reviewed, country by country, and included particular attention to sub-national data and consideration of vulnerable population subgroups.

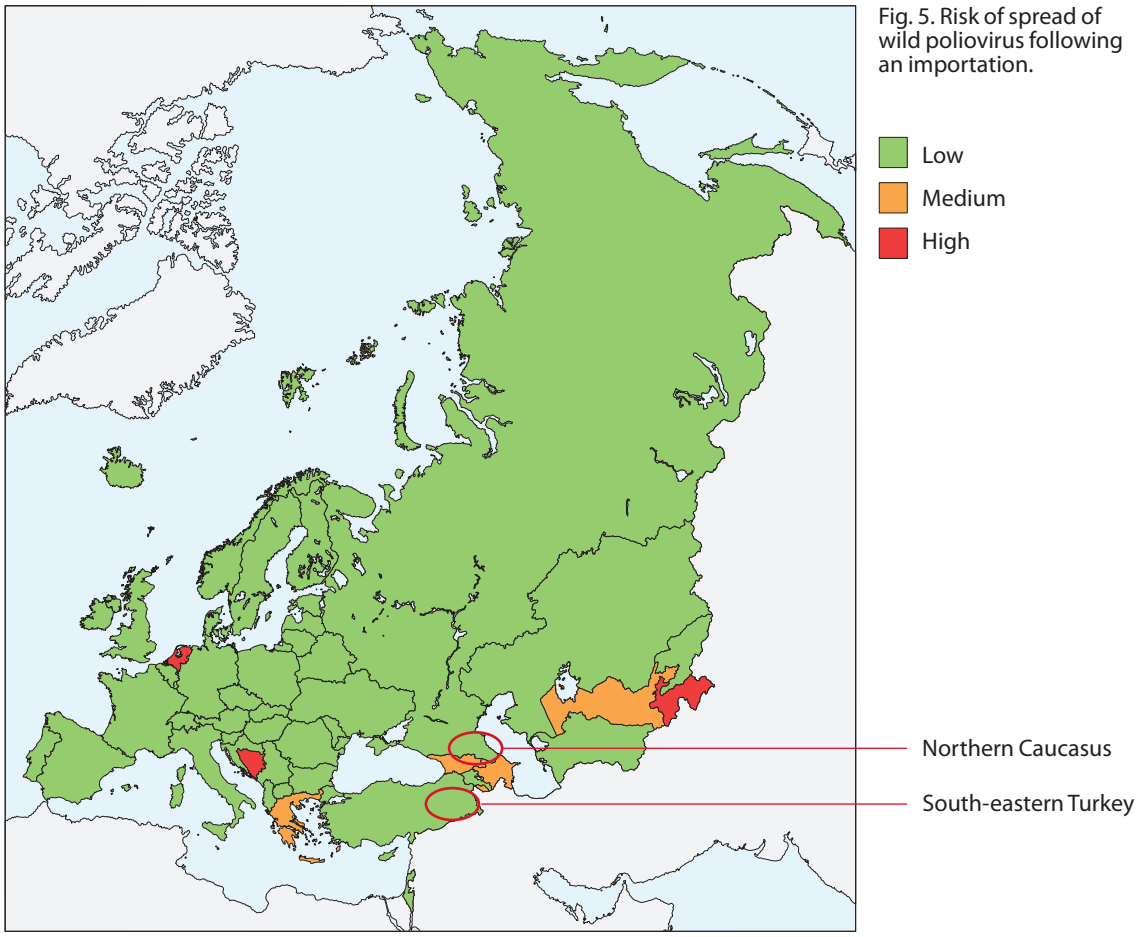


Fig. 5. Risk of spread of wild poliovirus following an importation.

- The three-year period following the last confirmed case of poliomyelitis due to indigenous wild poliovirus has been a guideline from the Global Certification Commission to ensure that "silent" circulation of wild poliovirus would be excluded. They also provided guidelines on the length of time following introduction of wild poliovirus from endemic areas to assess whether poliovirus circulation was re-established, indicating that outbreaks controlled within 6 months and observed for approximately one year following the last virus isolation were indicative that poliovirus circulation was not re-established.
- The likelihood of undetected indigenous wild poliovirus circulation in countries of the European Region from 1999 to present is assessed as VERY LOW.
- The potential risk for wild poliovirus spread following an importation is LOW in vast majority countries; there are only few countries/areas, which may be considered as high or medium risk.
- The conclusions presented are the judgment of the WHO Regional Office for Europe.

NORDIC/BALTIC EUROPEAN SUB-REGIONAL ZONE

1. OVERVIEW OF HEALTH SERVICES

Country	Infant mortality rate reported to WHO	Infant mortality rate estimated by UNICEF	Mortality rate <5 years of age estimated by UNICEF	MD per 100,000 population	Health system status
Denmark	-	4	5	283	Very good
Estonia	9[1]	17	21	322	Good
Finland	4[1]	4	5	307	Very good
Iceland	-	4	4	336	Very good
Latvia	10	17	21	320	Satisfactory
Lithuania	9	17	21	380	Good
Norway	-	4	4	470	Very good
Sweden	-	3	4	-	Very good

[1] 1999 data (otherwise 2000 data is presented).

Comments

Health Care Reform is progressing in the countries of this sub-regional zone. Health services are good or very good. The population has good access to immunization services. In summary, these health systems can detect paralytic cases and could diagnose those cases in a timely manner.

2. POLIOVIRUS VACCINES USED AND ROUTINE IMMUNIZATION COVERAGE

Country	Poliovirus vaccine policy	Percent of children immunized with third dose of poliovirus vaccine at one year of age			
		1998	1999	2000	2001
Denmark	IPV/OPV Phasing to all IPV	99	88	88	97
Estonia	OPV	88	91	93	94
Finland	IPV historically used	99	98	-	95
Iceland	IPV historically used	100	100	95	91
Latvia	IPV/OPV	74	95	96	97
Lithuania	IPV/OPV	97	97	92	97
Norway	IPV historically used	91	89	96	95
Sweden	IPV historically used	-	98	99	99

Comments

Routine immunization coverage is very good. Data provided in certification documentation suggests that there are no under-vaccinated populations of any significant size.

3. VACCINE-ASSOCIATED PARALYTIC POLIOMYELITIS, 1999 THROUGH 2001

The countries of this sub-region have reported no VAPP cases for at least the past three years.

Comments

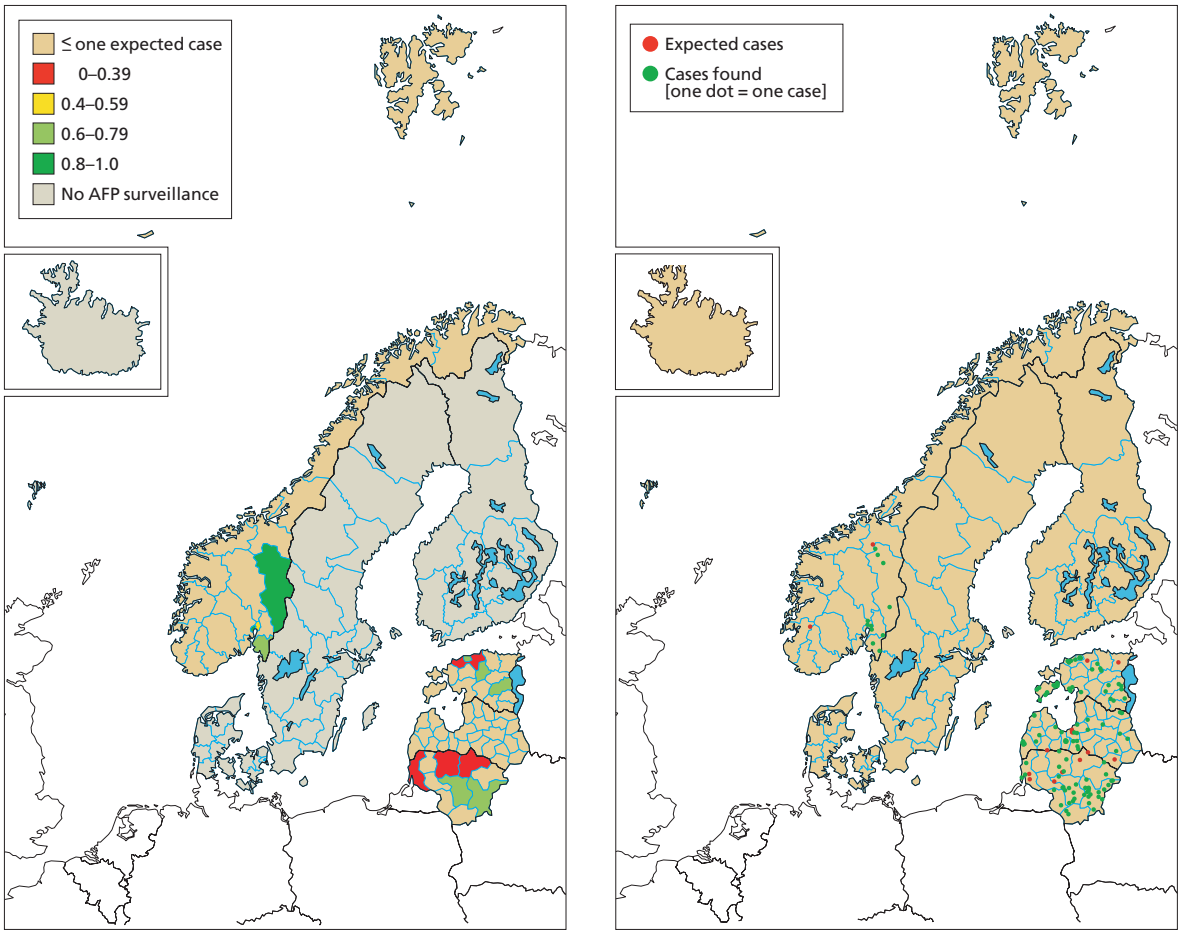
Only Estonia (total population 1,377,000) utilizes a solely OPV schedule.

4. DETECTION OF POLIOVIRUS CIRCULATION: SURVEILLANCE AND SUPPLEMENTARY INFORMATION

4.1 AFP Surveillance

Country	AFP surveillance index 1999	2000	2001	2002[1]
Denmark	-	-	-	-
Estonia	0.77	1.00	1.00	0.00
Finland	-	-	-	-
Iceland	-	-	-	-
Latvia	0.83	1.00	0.83	0.00
Lithuania	-	1.00	1.00	1.00
Norway	-	-	0.64	0.50
Sweden	-	-	-	-

[1] 2002 AFP Index is annualised, based on data as of 7 June 2002.



Comments

Estonia, Latvia and Lithuania have good quality AFP surveillance systems. For Estonia and Latvia, very few AFP cases are expected each year and as such, data for 2002 to date may be misrepresentative.

4.2 Supplementary Surveillance Information

Country	Enterovirus surveillance 1999-2001				Environmental surveillance 1999-2001		
	No. sampled	No. NPEV (%)	No. PV (%)	Ratio pop sampled per year (%)	No. sampled	No. NPEV (%)	No. PV (%)
Denmark	1712	120 (7.0%)	7 (0.4%)	1: 9326	-	-	-
Estonia	393	41 (10.4%)	7 (1.8%)	1: 2132	133	11 (8.3%)	7 (5.3%)
Finland	2520	100 (3.9%)	6 (0.2%)	1: 6157	189	11 (58.7%)	0
Iceland[1]	394	35 (8.9%)	1 (0.2%)	1: 1418	-	-	-
Latvia	1706	130 (7.6%)	26 (1.5%)	1: 4257	799	63 (7.9%)	56 (7.0%)
Lithuania	-	-	-		-	-	-
Norway [1]	725	151 (20.8%)	0	1:12328	-	-	-
	268[2]	95 (35.5%)	0		-	-	-
Sweden	3610	47 (1.3%)	1 (0.03%)	1: 7348			
	1224[3]	47 (3.8%)	1 (0.08%)	1: 2941			

[1] Data for 1999 and 2000 only.
[2] EV Surveillance of patients with meningitis by National Institute of Public Health, 1999-2001.
[3] EV surveillance specific to Stockholm only, 1999-2000.

Comments

The data above are for faecal specimens sampled from the total population from 1999 – 2001, unless otherwise specified. Among countries conducting supplementary surveillance, laboratory quality control systems have been implemented in Denmark, Estonia, Finland, Iceland, Latvia, and Sweden.

Denmark began systematic collection of clinical laboratory surveillance data for enteroviruses among the total population in 1998, and enhanced the system in 2001.

Estonia's EV system investigates stool samples from children <15 years of age with neurological symptoms. The environmental system covers three cities with a total population of 528,000 (including 92,000 <15-year-olds).

Finland's EV surveillance covers the total population (faecal specimens from routine viral diagnostics) and the environmental system covers 25% of the population.

Iceland has one laboratory with virus diagnostic capacity that receives samples nationally, and therefore represents data for the total population.

Latvia's EV system annually samples 500 healthy children aged <7 years and monitors clinical samples. The ratio presented above is for the total population, though the young are over-sampled. The environmental system attempts to match sampling to population density.

Norway's EV system includes clinical samples from aseptic meningitis cases nationally as well as other clinical samples tested at the six virology laboratories. A WHO-standard quality assurance system is not in place in all laboratories.

Sweden has two systems of EV surveillance. The national system covers the total population and the second serves to supplement incomplete data obtained through the national system using Stockholm County's two university hospital-affiliated laboratories to cover the population of Stockholm County (1.8 million). Environmental sampling continues to be improved, and covers the country's major cities.

5. LAST POLIOMYELITIS CASES AND/OR ISOLATION OF WILD POLIOVIRUS

Country	Last indigenous/outbreak case	Last imported case	Last wild virus isolated
Denmark	1976	1983	1983
Estonia	1961		1961
Finland	1985	1985	1985
Iceland	1960	1963	1963
Latvia	1962		1962
Lithuania	1972		1971
Norway	1969	1992	1992
Sweden	1977	1992	1992

Comments

No wild poliovirus circulation has been detected in this sub-region since the last importation into Finland in 1985. Single importated cases were detected in 1992 by Sweden and Norway.

6. IMPORTATIONS (AND SUBSEQUENT ACTIONS TAKEN FOLLOWING RECENT IMPORTATIONS)

This sub-region has not had a case linked to wild poliovirus for over nine years.

7. ASSESSMENT OF POTENTIAL RISK FOR POLIOVIRUS SPREAD FOLLOWING AN IMPORTATION

All countries of the sub-regional zone are judged to be at LOW risk based on the population's immunity profile, high polio immunization coverage especially of high-risk sub-groups, the relatively small size of high-risk populations (such as immigrants and mobile populations), surveillance quality, the strength of the epidemiology/public health services, and the cold climate.

8. CONTAINMENT STATUS

Country	National survey: percent of laboratories responded	Number of laboratories storing wild poliovirus	
		Total no.	No. at BSL-2
Denmark	>83	3 (to date)	3
Estonia	100	0	-
Finland	97 – 100	2	2
Iceland	100	0	-
Latvia	100	0	-
Lithuania	100	1	1
Norway	100	1	1
Sweden	41	5 (to date)	5

9. SUSTAINABILITY OF POLIO-FREE STATUS

The WHO Regional Office for Europe has received good commitment from all countries that they will maintain high quality immunization programmes, surveillance systems, and containment activities. Detailed plans of action have been received from Denmark, Estonia, Finland, Latvia, Lithuania, Norway and Sweden.

10. CONCLUSION

The likelihood of indigenous wild poliovirus circulation from 1999 to present is judged VERY LOW because of well-established health systems with the capacity to detect imported polio cases, good routine immunization coverage, and good surveillance (AFP and/or supplementary).

WESTERN SUB-REGIONAL ZONE

1. OVERVIEW OF HEALTH SERVICES

Country	Infant mortality rate reported to WHO	Infant mortality rate estimated by UNICEF	Mortality rate <5 years of age estimated by UNICEF	MD per 100,000 population	Health system status
Austria	5	5	5	308	Very good
Belgium	-	6	6	414	Very good
France	-	4	5	328	Very good
Germany	5[1]	5	5	358	Very good
Ireland	-	6	6	249	Very good
Luxembourg	3	5	5	249	Very good
Monaco	5[1]	4	5	-	Very good
Netherlands	5[1]	5	5	322	Very good
Switzerland	-	3	4	336[1]	Very good
United Kingdom	6[1]	6	6	-	Very good

[1] 1999 data (otherwise 2000 data is presented).

Comments

Health Care Reform is progressing in the countries of this sub-regional zone. Health services are good or very good in the countries of this zone and the population has good access to health services. In summary, these health systems can detect paralytic cases and could diagnose those cases in a timely manner.

2. POLIOVIRUS VACCINES USED AND ROUTINE IMMUNIZATION COVERAGE

Country	Poliovirus vaccine policy	Percent of children immunized with third dose of poliovirus vaccine at one year of age			
		1998	1999	2000	2001
Austria	All IPV since 2001	-	-	71	83
Belgium	All IPV since 1/2001	-	96	-	-
France	All IPV since 1983	97	-	98	-
Germany	All IPV since 1998	-	-	-	-
Ireland	All IPV since 7/2001	84	86	86	84
Luxembourg	All IPV since 1999	-	-	-	-
Monaco	IPV	-	-	-	-
Netherlands	IPV historically used	97	-	-	-
Switzerland	All IPV since 9/2001	92	-	-	92
United Kingdom	OPV	93	92	93	94

Comments

Although data collection of routine immunization levels and/or data reporting is not standard, routine immunization systems are generally strong in the countries of this sub-regional zone.

Immunization surveys indicate that 93-94% of children entering schools in Germany have been fully immunized against polio, and documentation submitted by the national certification committees support the available data for the Netherlands and Switzerland.

A vulnerable sub-population of approximately 300,000 individuals who refuse vaccination for religious reasons exists in the Netherlands, a country with a total population of 15,929,000.

3. VACCINE-ASSOCIATED PARALYTIC POLIOMYELITIS, 1999 THROUGH 2001

Country	Number of reported cases	Rate per 1,000,000 surviving infants per year
Germany	1	0.46

Comments

Germany reported one VAPP case in 2000, an individual with an antibody deficiency syndrome. OPV was not the recommended vaccine in 1999–2001.

Belgium detected one case with onset in 1999 that was determined to be 'probable' VAPP through retrospective, hospital discharge-data study.

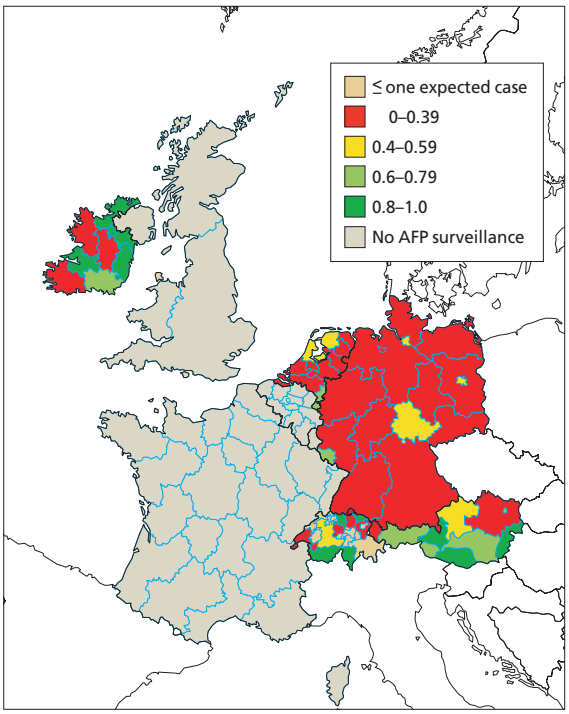
The United Kingdom had routinely detected VAPP cases in the years prior to 1999.

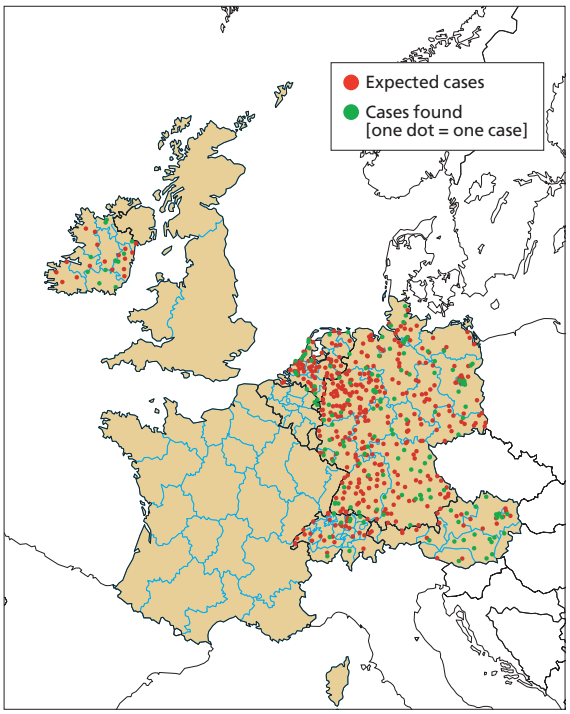
4. DETECTION OF POLIOVIRUS CIRCULATION: SURVEILLANCE AND SUPPLEMENTARY INFORMATION

4.1 AFP Surveillance

Country	AFP surveillance index			
	1999	2000	2001	2002[1]
Austria	0.42	0.80	0.58	0.66
Belgium	-	-	-	-
France	-	-	-	-
Germany	0.23	0.23	0.23	0.40
Ireland	0.13	0.56	0.56	0.25
Luxembourg	-	-	-	-
Monaco	-	-	-	-
Netherlands	0.20	0.17	0.28	0.00
Switzerland	0.08	0.47	0.16	0.00
United Kingdom	-	-	-	-

[1] 2002 AFP Index is annualised, based on data as of 7 June 2002.





Comments

In many countries of the sub-regional zone there is good detection of non-polio AFP cases, however there are problems with timely collection of stool specimens, which lowers the overall AFP index.

Belgium is in the early stages of implementation of a laboratory-based surveillance system. National data are not presented, as the system is just being introduced.

France and the United Kingdom do not have AFP surveillance systems, instead relying on data from enterovirus surveillance networks, discussed further in section 4.2, and reporting of any suspect cases of paralysis (including a report early in 2001 of paralysis in an Afghan refugee child).

4.2 Supplementary Surveillance Information

Country	Enterovirus surveillance 1999-2001				Environmental surveillance 1999-2001		
	No. sampled	No. NPEV (%)	No. PV (%)	Ratio pop sampled per year (%)	No. sampled	No. NPEV (%)	No. PV (%)
Austria	10549	708 (6.7%)	3 (0.03%)	1: 2288	-	-	-
Belgium[1]	-	234	2	-	-	-	-
France	12027	1349 (11.2%)	0	1:14776	311	131 (42.1%)	3 (1.0%)
Germany[2]	18670	272 (1.5%)	2 (0.01%)	1: 6589	-	-	-
	-	463	4	-	-	-	-
Ireland	3033	195 (6.4%)	75 (2.5%)	1: 3762	-	-	-
Luxembourg	-	-	-	-	-	-	-
Monaco	-	-	-	-	209	99 (47.4%)	0
Netherlands[3]	10020	900 (8.9%)	12 (0.1%)	1: 3166	-	-	-
Switzerland	-	-	-	-	-	-	-
United Kingdom	28237	2567 (9%)	593 (2.1%)	1: 6312			

[1] Mixed faecal, CSF and urine specimens for 2000-2001 from one university laboratory. Total number of specimens not available.
[2] Data is from non-systematic collection of clinical specimens (all types) submitted voluntarily to the German Association against Virus Diseases (DVV). Complete data presented for 4th quarter 1999 through 1st quarter 2001; isolate data available for full 1999-2001 period. Second set of data represents identification of isolates sent to the Robert Koch Institute.
[3] Data for 2000-2001.

Comments

The data above are for faecal specimens sampled from the total population from 1999 - 2001 unless otherwise specified. The majority of the countries in this sub-region that collect supplementary surveillance data have implemented laboratory quality control systems.

Belgium is at the initial stage of implementation of laboratory-based surveillance. As such the data presented are not complete.

Austria monitors clinical samples for enteroviruses nationally.

France's national EV system covers the entire country, though somewhat under-sampling from the south-west region by population size. The environmental system covers Paris (which is 20% of the country's population), and identified wild poliovirus prior to 1997. The laboratory network provided the above data.

Germany has two types of supplementary EV data. The first source is a loose national network of about 18 laboratories that is not geographically representative. The second consists of approximately 20 laboratories that send isolates to the Robert Koch Institute for identification and characterization.

Ireland's national system primarily analyses clinical samples from individuals aged < 15 years. A ratio of population per specimen tested presented in the above table uses the total population because the number of samples obtained from the < 15 year age group was not noted.

The Netherlands's EV system includes 19 laboratories linked to academic hospitals or regional public health centres. Environmental sampling is performed at 15 locations; nine are near schools with a large percentage of children unvaccinated due to religious reasons.

The United Kingdom's EV laboratory surveillance network is national and primarily laboratories based in major hospitals.

5. LAST POLIOMYELITIS CASES AND/OR ISOLATION OF WILD POLIOVIRUS

Country	Last indigenous/outbreak case	Last imported case	Last wild virus isolated
Austria	1980		1980
Belgium	1979	1989	1989
France	1989	1995	1996
Germany	1990	1992	1992
Ireland	1982		1982
Luxembourg	1963		Data not available
Monaco	1964		Data not available
Netherlands	1993	1993	1993
Switzerland	1982		1982
United Kingdom	1982	1993	1982

Comments

No wild poliovirus circulation has been detected in this sub-regional zone since wild poliovirus was imported into the Netherlands and caused an outbreak in 1992-1993, which resulted in 71 cases among an un-immunized population.

Wild poliovirus type 3 was detected in sewage water in France by environmental sampling in 1996.

6. IMPORTATIONS (AND SUBSEQUENT ACTIONS TAKEN FOLLOWING RECENT IMPORTATIONS)

This sub-regional zone has not had a case linked to wild poliovirus since 1993, except for the isolated imported case diagnosed in France in 1995.

7. ASSESSMENT OF POTENTIAL RISK FOR POLIOVIRUS SPREAD FOLLOWING AN IMPORTATION

HIGH Risk

- Netherlands, because of the continued presence of a sizeable sub-group which refuse vaccination.

All other countries are judged to be at LOW risk based on the population's immunization profile, high polio immunization coverage with particular attention to high-risk sub-groups, surveillance quality, and the strength of the epidemiology/public health services.

8. CONTAINMENT STATUS

Country	National survey: percent of laboratories responded	Number of laboratories storing wild poliovirus	
		Total no.	No. at BSL-2
Austria	100	3	3
Belgium	34	3 (to date)	3
France	34	-	-
Germany	97.5	39 (to date)	25
Ireland	84	0	-
Luxembourg	100	0	-
Monaco	100	0	-
Netherlands	100	2	2
Switzerland	In progress	-	-
United Kingdom	79	-	-

9. SUSTAINABILITY OF POLIO-FREE STATUS

The WHO Regional Office for Europe has received good commitment from all countries that they will maintain high quality immunization programmes, surveillance systems, and containment activities. Detailed plans of action have been received from Belgium, Germany and the United Kingdom. A draft plan has been received from France and is pending ministry clearance.

10. CONCLUSION

The likelihood of circulation of imported wild poliovirus in the sub-region from 1999 to present is judged VERY LOW because of well-established health systems that can detect poliomyelitis cases, AFP and supplementary poliovirus surveillance and overall good routine immunization coverage, including of high-risk populations.

The small populations of Monaco (30,000) and Luxembourg (437,000) are highly unlikely to support ongoing poliovirus transmission, and their very good quality health care systems would likely detect poliovirus cases.

The last indigenous circulation of wild poliovirus (originating outside the country) detected in this subregion was in the Netherlands in 1993 and was related to an outbreak among persons refusing immunization on religious grounds. Since that time, an imported case was detected in France in 1995 and wild poliovirus was detected in sewage in France in 1996 demonstrating the capacity to detect cases and viruses.

CENTRAL SUB-REGIONAL ZONE

1. OVERVIEW OF HEALTH SERVICES

Country	Infant mortality rate reported to WHO	Infant mortality rate estimated by UNICEF	Mortality rate <5 years of age estimated by UNICEF	MD per 100,000 population	Health system status
Belarus	11[1]	17	20	458[1]	Good
Bulgaria	13	15	16	337	Satisfactory
Czech Republic	4	5	5	337	Very good
Hungary	9	8	9	361	Good
Poland	8	9	10	226	Good
Slovakia	9	8	9	323	Good
Slovenia	5[1]	5	5	215[1]	Very good

[1] 1999 data (otherwise 2000 data is presented).

Comments

Health Care Reform is progressing in the countries of this sub-regional zone, although Belarus has not yet begun the process. Health services are good or very good. The population has good access to immunization services. In summary, these health systems can detect paralytic cases and could diagnose those cases in a timely manner.

2. POLIOVIRUS VACCINES USED AND ROUTINE IMMUNIZATION COVERAGE

Country	Poliovirus vaccine policy	Percent of children immunized with third dose of poliovirus vaccine at one year of age			
		1998	1999	2000	2001
Belarus	IPV/OPV since 2000	98	99	99	99
Bulgaria	OPV	97	97	98	94
Czech Republic	OPV	97	98	97	97
Hungary	IPV/OPV	100	100	100	100
Poland	IPV/OPV since 2001	98	98	98	98
Slovakia	OPV	99	99	98	99
Slovenia	OPV	90	93	-	-

Comments

Routine immunization coverage is very good in the countries of this sub-regional zone.

After importation of wild poliovirus in 2001, extensive supplementary immunization activities were conducted in Bulgaria as detailed below. In addition, both Hungary and Slovakia provided supplemental immunizations to high-risk groups.

Immunological surveys are regularly conducted in some of these countries and confirm high levels of protection against poliovirus in various age groups in Belarus and the Czech Republic and in children less than 9-years-old in Hungary.

3. VACCINE-ASSOCIATED PARALYTIC POLIOMYELITIS, 1999 THROUGH 2001

Country	Number of reported cases	Rate per 1,000,000 surviving infants per year
Belarus[1]	4	14.8
Bulgaria	1	5.5
Poland	2	1.8

[1] Belarus reported one additional case that did not meet the WHO criteria for VAPP.

Comments

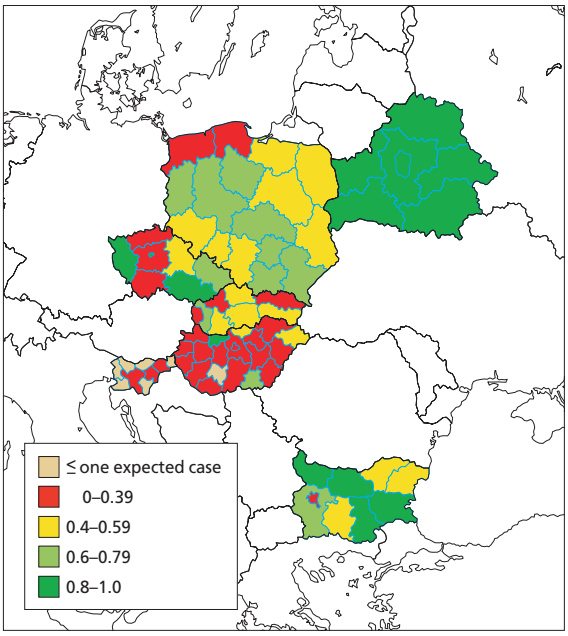
The rate is calculated based on cases classified according to WHO criteria.

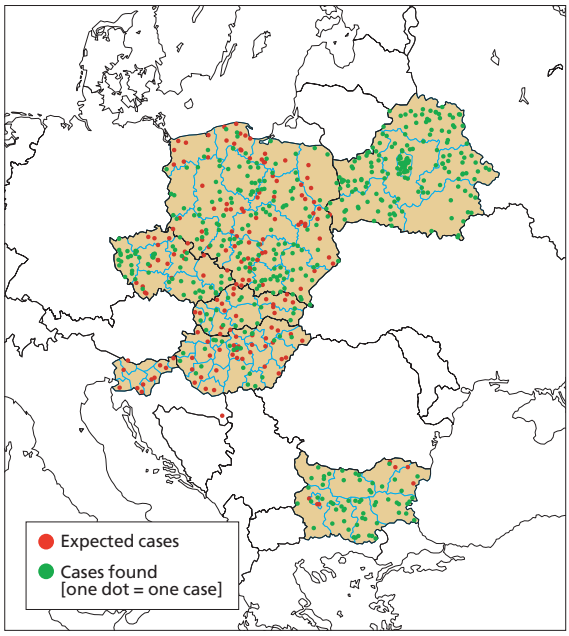
4. DETECTION OF POLIOVIRUS CIRCULATION: SURVEILLANCE AND SUPPLEMENTARY INFORMATION

4.1 AFP Surveillance

Country	AFP surveillance index 1999	2000	2001	2002[1]
Belarus	0.88	0.96	0.91	1.00
Bulgaria	0.77	0.53	0.98	1.00
Czech Republic	0.82	0.91	0.83	0.60
Hungary	0.29	0.46	0.51	0.67
Poland	0.66	0.45	0.85	0.76
Slovakia	0.45	0.34	0.69	0.57
Slovenia	-	-	-	-

[1] 2002 AFP Index is annualised, based on data as of 7 June 2002.





Comments

AFP surveillance is well established in the sub-regional zone with good AFP indices for Belarus, Bulgaria and Czech Republic.

4.2 Supplementary Surveillance Information

Country	Enterovirus surveillance 1999-2001 No. sampled	No. NPEV (%)	No. PV (%)	Ratio pop sampled per year (%)	Environmental surveillance 1999-2001 No. sampled	No. NPEV (%)	No. PV (%)
Belarus	-	-	-	-	-	-	-
Bulgaria[1]	1 370	148 (10.8%)	25 (1.8%)	1:11 605	-	-	-
Czech Republic	16 670	150 (0.9%)	25 (0.2%)	1: 1 849	1091	82 (7.5%)	32 (2.9%)
Hungary[2]	308	19 (6.2%)	2 (0.6%)	1: 32 362	-	-	-
Poland	2 301	101 (4.4%)	14 (0.6%)	1:20 707	-	-	-
Slovakia [2, 3]	139	20 (14.4%)	0	1: 7 477	234	7 (3.0%)	17 (7.3%)
Slovenia[1]	164	66 (40.2%)	1 (0.6%)	1:24 240	-	-	-

[1] Data for 2000-2001, includes supplementary stool surveys conducted in 2001.
[2] Data for 2001 representing results of surveys conducted in response to importation of wild poliovirus into Bulgaria and includes high-risk populations.
[3] NPEV data is only available for the high-risk survey and is not representative of the overall enterovirus laboratory network.

Comments

The data above are for faecal specimens sampled from the total population from 1999 - 2001 unless otherwise specified and complement AFP surveillance data.

The Czech Republic and Slovakia have well-established systems of EV and environmental surveillance with appropriate quality assurances. The surveillance systems cover the total population. Data reported by Slovakia do not include results from this network.

Data on supplementary surveillance from Bulgaria, Hungary and Slovenia come from the national laboratories and laboratories with established quality assurance.

EV surveillance in Poland is operational. However, the system is sub-optimal as no quality assurance data are available and not all poliovirus isolates were forwarded to the polio national laboratory for confirmation and subsequent intra-typic differentiation.

Bulgaria data reflects the work of extensive stool surveys conducted after wild poliovirus importation in 2001.

EV surveillance was conducted in 2001 after importation of poliovirus in Bulgaria in Hungary, Slovakia and Slovenia and covered high-risk populations.

5. LAST POLIOMYELITIS CASES AND/OR ISOLATION OF WILD POLIOVIRUS

Country	Last indigenous/outbreak case	Last imported case	Last wild virus isolated
Belarus	1964	1986	1986
Bulgaria[1]	1991	2001	2001
Czech Republic	1960		1960
Hungary	1969	1972	1972
Poland	1984		1984
Slovakia	1960		1960
Slovenia	1978		Data not available

[1] imported wild poliovirus by genomic sequence analysis with limited local transmission in 2001.

Comments

The last polio case in the sub-region occurred during 2001, associated with an importation of type 1 poliovirus from the Indian subcontinent (98.3% homology) into Bulgaria. Previously, the last poliovirus case was reported in 1991. Three polio cases were documented in two adjacent districts in southeast Bulgaria in March-May, with the last virus isolated in Sophia in May 2001. (See point 6)

Poliovirus was not detected in any other countries of the sub-regional zone since 1986.

6. IMPORTATIONS (AND SUBSEQUENT ACTIONS TAKEN FOLLOWING RECENT IMPORTATIONS)

Bulgaria's and the regional system's response to the 2001 wild poliovirus importation was prompt and effective. Intra-typic differentiation (ITD) was available within 10 days from the initial isolation of the poliovirus. Bulgaria's AFP surveillance system was enhanced; NIDs were implemented 30 days after the ITD results. Bulgaria also undertook mopping up vaccinations among high-risk groups in the fall of 2001. All countries of this zone took prompt action following the importation to enhance surveillance and identify/vaccinate high-risk groups as needed.

Particularly given the extensive control activities undertaken in response to the importation, all evidence indicates that ongoing indigenous transmission was not established.

7. ASSESSMENT OF POTENTIAL RISK FOR POLIOVIRUS SPREAD FOLLOWING AN IMPORTATION

All countries are judged to be at LOW risk based on the population's immunization profile, polio immunization coverage, surveillance quality, and strength of the epidemiology/public health service. However, there are an uncertain number of children among high-risk groups that are under-vaccinated in this sub-region.

8. CONTAINMENT STATUS

Country	National survey: percent of laboratories responded	Number of laboratories storing wild poliovirus	
		Total no.	No. at BSL-2
Belarus	100	1	1
Bulgaria	100	0	-
Czech Republic	100	0	-
Hungary	100	3	3
Poland	100	0	-
Slovakia	100	1	1
Slovenia	100	2	2

9. SUSTAINABILITY OF POLIO-FREE STATUS

The WHO Regional Office for Europe has received good commitment from all countries that they will maintain good quality immunization programmes, surveillance systems, and containment activities. Detailed plans of action have been submitted by all countries of the central European sub-regional zone.

10. CONCLUSION

The likelihood of indigenous wild poliovirus circulation from 1999 to present is judged VERY LOW because of well-established health systems that can detect cases of poliomyelitis, including one VAPP, good routine immunization coverage, and overall high quality surveillance activities. Additionally, there is no evidence to suggest poliovirus transmission in countries neighbouring Bulgaria following the importation.

All evidence indicates that there is no indigenous transmission of wild poliovirus in the countries of this sub-regional zone and that the successful immunization campaigns prevented any extended transmission of poliovirus.

SOUTHERN SUB-REGIONAL ZONE

1. OVERVIEW OF HEALTH SERVICES

Country	Infant mortality rate reported to WHO	Infant mortality rate estimated by UNICEF	Mortality rate <5 years of age estimated by UNICEF	MD per 100,000 population	Health system status
Andorra	-	6	7	255	Very good
Croatia	-	8	9	238	Very good
Greece	-	5	6	434[1]	Very good
Israel	-	6	6	377	Very good
Italy	-	6	6	567[1]	Very good
Malta	7	5	6	263	Very good
Portugal	6	6	6	317[1]	Very good
San Marino	6[1]	6	6	-	Very good
Spain	-	5	5	329	Very good

[1] 1999 data (otherwise 2000 data is presented).

Comments

Health Care Reform is progressing and health services are good or very good in the countries of the sub-regional zone and the population has good access to immunization services. In summary, these health systems can detect paralytic cases and could diagnose those cases in a timely manner.

2. POLIOVIRUS VACCINES USED AND ROUTINE IMMUNIZATION COVERAGE

Country	Poliovirus vaccine policy	Percent of children immunized with third dose of poliovirus vaccine at one year of age			
		1998	1999	2000	2001
Andorra	IPV/OPV	89	-	-	-
Croatia	OPV	93	93	94	94
Greece	OPV	-	-	98	93
Israel	IPV/OPV since 1990	92	92	91	92
Italy	IPV/OPV since 1999	98	97	96	-
Malta	OPV	92	95	91	>95
Portugal	OPV	97	97	96	-
San Marino	IPV or IPV/OPV	100	100	98	-
Spain	OPV	95	95	95	-

Comments

Routine immunization coverage in the countries of this sub-region is very good, including in high-risk subpopulations in most countries.

3. VACCINE-ASSOCIATED PARALYTIC POLIOMYELITIS, 1999 THROUGH 2001

Country	Number of reported cases	Rate per 1,000,000 surviving infants per year
Greece	1	3.4
Italy	2	1.3
Spain	2	1.9

Comments

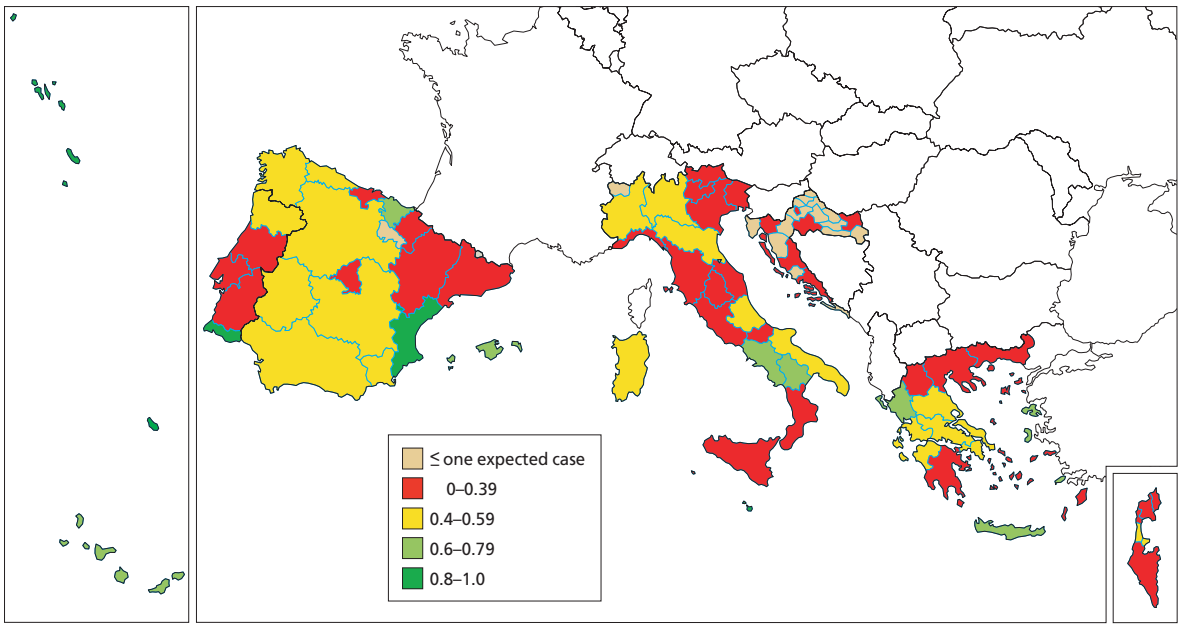
Greece, Italy, and Spain, all countries with good health care systems, identified VAPP cases. Greece and Spain both administer OPV only. One of the two Italian cases occurred in 1999, prior to the switch in policy to an IPV/OPV schedule.

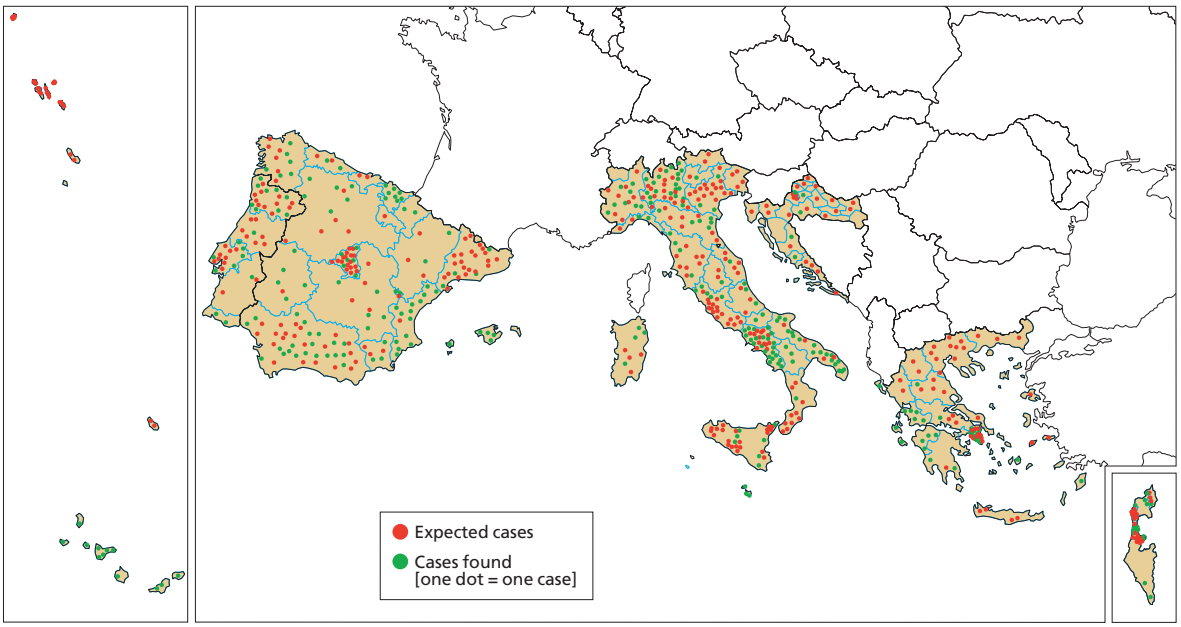
4. DETECTION OF POLIOVIRUS CIRCULATION: SURVEILLANCE AND SUPPLEMENTARY INFORMATION

4.1 AFP Surveillance

Country	AFP surveillance index			
	1999	2000	2001	2002[1]
Andorra	-	-	-	-
Croatia	0.25	0.11	0.22	0.00
Greece	0.67	0.49	0.49	0.33
Israel	0.52	0.34	0.56	0.35
Italy	0.39	0.42	0.54	0.43
Malta	1.00	1.00	1.00	0.00
Portugal	0.12	0.54	0.47	0.27
San Marino	-	-	-	-
Spain	0.53	0.58	0.58	0.46

[1] 2002 AFP Index is annualised, based on data as of 7 June 2002.





Comments

Six countries supplement AFP surveillance with EV surveillance of good quality to detect both NPEV and polioviruses: Croatia, Israel, Italy, Spain, Portugal and Greece. With the exception of Portugal and Greece, all have implemented laboratory quality control systems.

4.2 Supplementary Surveillance Information

Country	Enterovirus surveillance 1999-2001				Environmental surveillance 1999-2001		
	No. sampled	No. NPEV (%)	No. PV (%)	Ratio pop sampled per year (%)	No. sampled	No. NPEV (%)	No. PV (%)
Andorra	-	-	-	-	-	-	-
Croatia	579	104 (17.8%)	9 (1.5%)	1:24 113	65	2 (3.1%)	0
Greece	376	79 (21%)	5 (1.3%)	1:84 654	-	-	-
Israel	1 562	214 (13.7%)	13 (0.8%)	1:11 601	770	Not reported	39 (5.1%)
Italy[1]	5 714	411 (7.2%)	91 (1.6%)	1: 1 476	233	144 (61.8%)	14 (6.0%)
Malta	-	-	-	-	-	-	-
Portugal[2]	467	98 (21%)	4 (0.9%)	1:42 893	-	-	-
San Marino	-	-	-	-	-	-	-
Spain[3]	3 548	1 017 (28.6%)	33 (0.9%)	1: 5 514	-	-	-

[1] Stool survey of children < 15 years old conducted in 2000. Ratio shown is per population < 15.
[2] Data presented is for 2000-2001.
[3] Surveillance targeted to population < 15 years old, ratio shown for this population.

Comments

The data above are for faecal specimens sampled from the total population from 1999 - 2001 unless otherwise specified.

Croatia conducts faecal specimen surveys during each August/September, collecting about 75 samples in outpatient clinics and in-patient infectious disease wards regardless of diagnosis. An additional survey was done in 2001, collecting faceal specimens from children <5-years-old. Results of enterovirus testing at the national polio laboratory are also monitored. Environmental sampling focuses on five major cities, though the population covered is not provided.

Greece provided supplementary data indicated in the table through the laboratory network.

Israel's EV surveillance network consists of 5 laboratories, including the national laboratory, and covers 2.4 million persons (about one-third of the population). Environmental surveillance conducted by the national laboratory covers Israeli (about 2 million population from 16 sites) and Palestinian self-ruled territories (about 1 million population from 14 sites.)

Italy's EV data represents a year 2000 stool survey of healthy children aged <15-years-old. Environmental sampling was performed in most areas of the country in 2000.

Portugal did not provide information on the scope of the EV system.

Spain's EV system primarily reflects samples from patients <15 years of age admitted to hospital with respiratory and neurological syndromes (principally aseptic meningitis). Nine laboratories participate in the network.

5. LAST POLIOMYELITIS CASES AND/OR ISOLATION OF WILD POLIOVIRUS

Country	Last indigenous/outbreak case	Last imported case	Last wild virus isolated
Andorra	1959		Data not available
Croatia	1989		1990
Greece	1996		1996
Israel	1988		1988
Italy	1982	1988	1988
Malta	1964		1964
Portugal	1986		1986
San Marino	1963		Data not available
Spain	1988	1989	1989

Comments

No wild poliovirus circulation has been detected in the sub-regional zone following the five cases associated with the 1996 outbreak in the Roma community in Greece related to the outbreak in Albania.

6. IMPORTATIONS (AND SUBSEQUENT ACTIONS TAKEN FOLLOWING RECENT IMPORTATIONS)

This sub-regional zone has not had cases due to importation for over five years.

7. ASSESSMENT OF POTENTIAL RISK FOR POLIOVIRUS SPREAD FOLLOWING AN IMPORTATION

MEDIUM Risk

- Greece, because of the presence of a relatively large minority and immigrant population and insufficient data to show that these groups are adequately immunized.

All other countries are judged at LOW risk based on the population's immunization profile, polio immunization coverage especially of high-risk sub-groups, surveillance quality, and strength of the epidemiology/public health services.

8. CONTAINMENT STATUS

Country	National survey: percent of laboratories responded	Number of laboratories storing wild poliovirus	
		Total no.	No. at BSL-2
Andorra	100	0	-
Croatia	100	1	1
Greece	100	2	2
Israel	100	1	1
Italy	95	62 (to date)	Data not available
Malta	100	0	-
Portugal	11	2 (to date)	Data not available
San Marino	No laboratory	-	-
Spain	100	2-5	2

Comments

Implementation of the national laboratory survey has been very slow in Portugal.

9. SUSTAINABILITY OF POLIO-FREE STATUS

The WHO Regional Office for Europe has received good commitment from all countries that they will maintain good quality immunization programmes, surveillance systems, and containment activities. Detailed plans of action have been submitted by Andorra, Croatia, Israel, Italy, Malta, Portugal and Spain.

10. CONCLUSION

The likelihood of indigenous wild poliovirus circulation from 1999 to present is judged VERY LOW in this sub-region because of well-established health systems that can detect cases of poliomyelitis and VAPP, good surveillance/supplementary surveys, and good routine immunization coverage.

Andorra (population 64,000) and San Marino (population 26,000) have not provided surveillance data; however, their small populations would not support ongoing poliovirus transmission. Their quality health care systems would likely be able to detect clinical poliomyelitis cases.

CENTRAL/EASTERN SUB-REGIONAL ZONE

1. OVERVIEW OF HEALTH SERVICES

Country	Infant mortality rate reported to WHO	Infant mortality rate estimated by UNICEF	Mortality rate <5 years of age estimated by UNICEF	MD per 100,000 population	Health system status
Albania	-	27	31	133	Good
Bosnia and Herzegovina	15[1]	15	18	142	Good
The former Yugoslav Republic of Macedonia	12	22	26	220	Good
Republic of Moldova	18	27	33	318	Satisfactory
Romania	19	19	22	189	Good
Ukraine	12	17	21	300	Good
Yugoslavia	20[1]	17	20	213	Satisfactory

[1] 1999 data (otherwise 2000 data is presented).

Comments

Health Care Reform is in a transitional stage in this sub-regional zone. Health services are satisfactory to good, with the population having good access to health services and to immunization services. These health systems could detect and diagnose paralysis cases.

2. POLIOVIRUS VACCINES USED AND ROUTINE IMMUNIZATION COVERAGE

Country	Poliovirus vaccine policy	Percent of children immunized with third dose of poliovirus vaccine at one year of age			
		1998	1999	2000	2001
Albania	OPV	97	97	97	97
Bosnia and Herzegovina	OPV	91	95	87	-
The former Yugoslav Republic of Macedonia	OPV	93	95	96	91
Republic of Moldova	OPV	98	98	92	93
Romania	OPV	100	97	-	99
Ukraine	OPV	99	95	98	99
Yugoslavia	OPV	89	97	97	93

Note: Bosnia and Herzegovina conducted SNIDs in 1997–1998 and 2000; Kosovo area of Yugoslavia conducted SNIDs in 1996–1998, 2000 and 2001.

Comments

Routine coverage as reported is very good. However, un/under-vaccinated sub-groups may exist in Yugoslavia and particularly in Bosnia and Herzegovina because of the size of the displaced population. A coverage survey in the Kosovo area of Yugoslavia during February 2001 found an 88% OPV3 coverage rate. Subsequent supplementary immunization activities in Kosovo covered 92% and 88% of targeted children during the first and second rounds, respectively.

Documentation submitted by the national certification committee reports that vaccination coverage is as high as 91% in Bosnia and Herzegovina in 2001.

3. VACCINE-ASSOCIATED PARALYTIC POLIOMYELITIS, 1999 THROUGH 2001

Country	Number of reported cases	Rate per 1,000,000 surviving infants per year
Romania	4	5.9
Ukraine[1]	14	11.4
Yugoslavia	2	5.4

[1] Ukraine reported one additional case that did not meet the WHO criteria for VAPP.

Comments

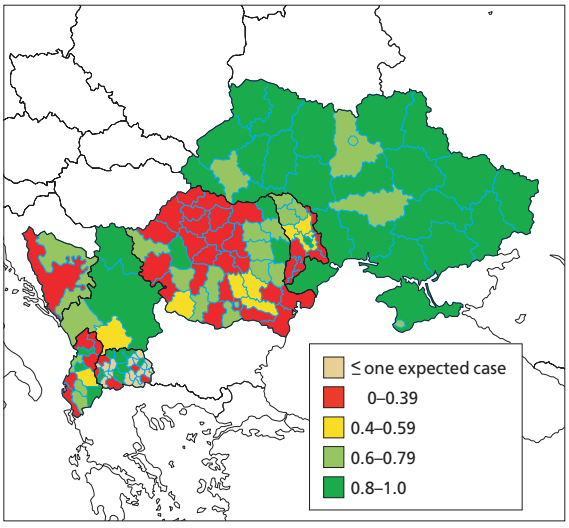
Romania had reported higher rates of VAPP prior to a policy providing IPV before OPV in institutionalized children. The rate is calculated based on cases classified according to WHO criteria.

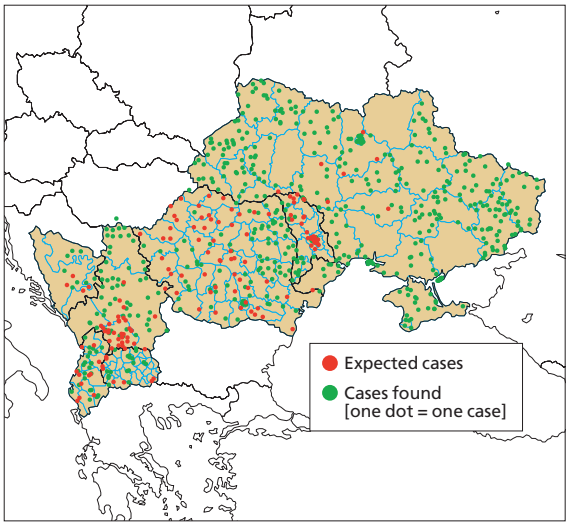
4. DETECTION OF POLIOVIRUS CIRCULATION: SURVEILLANCE AND SUPPLEMENTARY INFORMATION

4.1 AFP Surveillance

Country	AFP surveillance index			
	1999	2000	2001	2002[1]
Albania	0.58	0.77	0.92	1.00
Bosnia and Herzegovina	0.49	0.24	0.24	0.55
The former Yugoslav Republic of Macedonia	0.86	1.00	1.00	0.83
Republic of Moldova	0.58	0.75	0.65	0.80
Romania	0.68	0.77	0.77	0.92
Ukraine	0.94	0.94	0.96	0.97
Yugoslavia	0.81	0.67	0.56	0.80

[1] 2002 AFP Index is annualised, based on data as of 7 June 2002.





Comments

All countries have good surveillance with the exception of Bosnia and Herzegovina; however, as special efforts have been made to enhance surveillance, significant improvement can already be seen in 2002. During 2000 and 2001, Bosnia and Herzegovina undertook extensive record reviews covering major hospitals that found no polio cases but did identify unreported AFP cases.

Due to the transition in administration of the Kosovo area of Yugoslavia during this period, additional efforts were made at the end of 2001 to enhance active surveillance through specialized staff training.

4.2 Supplementary Surveillance Information

Country	Enterovirus surveillance 1999-2001				Environmental surveillance 1999-2001		
	No. sampled	No. NPEV (%)	No. PV (%)	Ratio pop sampled per year (%)	No. sampled	No. NPEV (%)	No. PV (%)
Albania	-	-	-	-	-	-	-
Bosnia and Herzegovina	-	-	-	-	-	-	-
The former Yugoslav Republic of Macedonia	-	-	-	-	-	-	-
Republic of Moldova[1]	314	7 (2.2%)	7 (2.2%)	1: 27360	250	34 (13.6%)	64 (25.6%)
Romania	-	-	-	-	-	-	-
Ukraine	-	-	-	-	-	-	-
Yugoslavia	202	39 (19.3%)	5 (2.5%)	1:156719	-	-	-

[1] Data reported for 2000-2001; data include all clinical specimens (faecal and other).

Comments

The data above are for faecal specimens sampled from the total population from 1999 - 2001 unless otherwise specified.

Albania conducts stool surveys annually sampling healthy children <15 years of age as well as children with diarrhoea. No poliovirus was found among 440 faecal specimens during 2000 and 2001.

Republic of Moldova conducted a faecal specimen survey collecting 52 specimens from health children during 2001, and surveyed additional clinical samples from meningitis patients during 2000-2001. Environmental samples were obtained from sewage pipelines serving high-risk hospitals, orphanages, and preschool institutions.

Albania and Republic of Moldova collect supplementary surveillance information via national laboratories with quality control procedures.

Yugoslavia monitors the outcome of EV testing for clinical reasons, although the network does not meet WHO standards.

Ukraine has an extensive network of enterovirus surveillance laboratories; however, laboratory procedures do not follow WHO standards. During this period, Ukraine tested 26539 samples and detected 202 (0.8%) polioviruses. All viruses were confirmed as Sabine-like by the WHO Regional Reference Laboratory.

5. LAST POLIOMYELITIS CASES AND/OR ISOLATION OF WILD POLIOVIRUS

Country	Last indigenous/outbreak case	Last imported case	Last wild virus isolated
Albania	1996		1996
Bosnia and Herzegovina	1974		1974
The former Yugoslav Republic of Macedonia	1987		1987
Republic of Moldova	1991		1991
Romania	1992		1992
Ukraine	1996		1993
Yugoslavia	1996		1996

Comments

No wild poliovirus circulation has been detected in this sub-regional zone since the 1996 outbreak that occured in Albania and the Kosovo area of Yugoslavia following importation of wild poliovirus.

6. IMPORTATIONS (AND SUBSEQUENT ACTIONS TAKEN FOLLOWING RECENT IMPORTATIONS)

This sub-regional zone has not had a case linked to wild poliovirus since 1996. Following the 2001 importation into Bulgaria, both Romania and Yugoslavia (the Federal Republic exclusive of Kosovo, as well as the Kosovo area) surveyed high-risk territories, defined at high-risk groups, and conducted extensive supplementary vaccination activities.

7. ASSESSMENT OF POTENTIAL RISK FOR POLIOVIRUS SPREAD FOLLOWING AN IMPORTATION

HIGH Risk

- Bosnia and Herzegovina, primarily because of sub-optimal AFP surveillance and delays in specimen shipment, compounded by sub-national areas with low immunization coverage, the likely presence of un/under-vaccinated sub-groups, and epidemiology/public health services under stress.

All other countries are judged at LOW risk based on the population's immunization profile, polio immunization coverage especially of high-risk sub-groups, surveillance quality, and the strength of the epidemiology/public health services.

8. CONTAINMENT STATUS

Country	National survey: percent of laboratories responded	Number of laboratories storing wild poliovirus	
		Total no.	No. at BSL-2
Albania	100	1	1
Bosnia and Herzegovina	100	0	-
The former Yugoslav Republic of Macedonia	100	0	-
Republic of Moldova	100	0	-
Romania	100	1	1
Ukraine	100	0	-
Yugoslavia	100	1	1

9. SUSTAINABILITY OF POLIO-FREE STATUS

The WHO Regional Office for Europe has received commitment from all countries that they will strive to maintain good quality immunization programmes, surveillance systems, and containment activities. Detailed plans of action have been submitted by all countries of the central/eastern European sub-regional zone.

10. CONCLUSION

The likelihood of indigenous wild poliovirus circulation from 1999 to present is judged VERY LOW in this sub-regional zone because of relatively good health systems that can detect cases of polio and VAPP, good routine immunization coverage, and good overall surveillance.

MECACAR COUNTRIES, RUSSIAN FEDERATION

1. OVERVIEW OF HEALTH SERVICES

Country	Infant mortality rate reported to WHO	Infant mortality rate estimated by UNICEF	Mortality rate <5 years of age estimated by UNICEF	MD per 100,000 population	Health System Status
Armenia	16	25	30	299	Satisfactory
Azerbaijan	13	74	105	361	Satisfactory
Georgia	12	24	29	473	Satisfactory
Kazakhstan	19	60	75	329	Good
Kyrgyzstan	23	53	63	282	Satisfactory
Russia	15	18	22	419	Satisfactory
Tajikistan	18	54	73	210	Satisfactory
Turkey	40[1]	38	45	127[1]	Good
Turkmenistan	-	52	70	-	Satisfactory
Uzbekistan	-	51	67	298	Satisfactory

[1] 1999 data (otherwise 2000 data is presented).

Comments

Health Care Reform is in a transitional stage in this sub-regional zone. Health services are generally satisfactory and immunization and epidemiological acess are adequate overall in the majority of countries.

2. POLIOVIRUS VACCINES USED, ROUTINE IMMUNIZATION COVERAGE, AND SUPPLEMENTARY IMMUNIZATION ACTIVITIES

Country	Vaccine Used	Polio Vaccine 3 Coverage (%) 1998	1999	2000	2001	Supplementary Immunization Activities (SIAs)
Armenia[1]	OPV	96	97	96	97	NIDs: 1999 • SNIDs: 1999-2000, 2002
Azerbaijan[1, 2]	OPV	96	100	99	97	NIDs: 1999-2000, 2002 • SNIDs: 1999-2000
Georgia[1, 2]	OPV	95	91	78	81	NIDS: 2002 • SNIDs:1999-2000
Kazakhstan	OPV	100	100	97	97	SNIDs: 1999
Kyrgyzstan	OPV	97	99	99	99	SNIDs: 1999-2000
Russian Federation	OPV	99	99	97	97	NIDs: 1999 • SNIDs: 1999-2002
Tajikistan[2, 3]	OPV	97	96	96	97	NIDs: 1999-2002 • SNIDs: 1999-2002
Turkey[3]	OPV	81	79	85	82	NIDs: 1999-2000 • SIDS/MU: 1999-2002
Turkmenistan[3]	OPV	100	98	98	94	NIDs: 1999-2002 • SNIDs: 1999-2002
Uzbekistan[3]	OPV	99	100	95	99	NIDs: 1999-2002 • SNIDs: 1999-2002

NIDs: National Immunization Days; SNIDs: Sub-national Immunization Days; MU: Mopping-up.

[1] In response to wild poliovirus found in Georgia in 2001, NIDs were implemented in Azerbaijan and Georgia; Armenia implemented SNIDs.
[2] Data cited in national applications to receive immunization systems strengthening support from the vaccine fund (GAVI) suggest lower than reported coverage for Azerbaijan, Georgia and Tajikistan for 1999.
[3] Rounds of SNIDs and NIDs continued into 2002 for Tajikistan, Turkmenistan, Uzbekistan; Turkey continued four intensive rounds of SNIDs into 2002.

Comments

All countries have conducted supplementary immunization activities coordinated through Operation MECACAR, particularly to ensure good immunity among high-risk groups.

Data available from surveys cited in applications to the Vaccine Fund (GAVI) suggest areas with low percentage of children with age-appropriate immunization coverage in Azerbaijan, Georgia, Tajikistan and Uzbekistan.

Eastern and southeastern Turkey, and some republics of the northern Caucasus area of the Russian Federation continue to have low reported routine immunization coverage.

In Georgia, general practitioners delay delivery of OPV due to misunderstandings of contra-indication policy for DTP.

3. VACCINE-ASSOCIATED PARALYTIC POLIOMYELITIS, 1999 THROUGH 2001

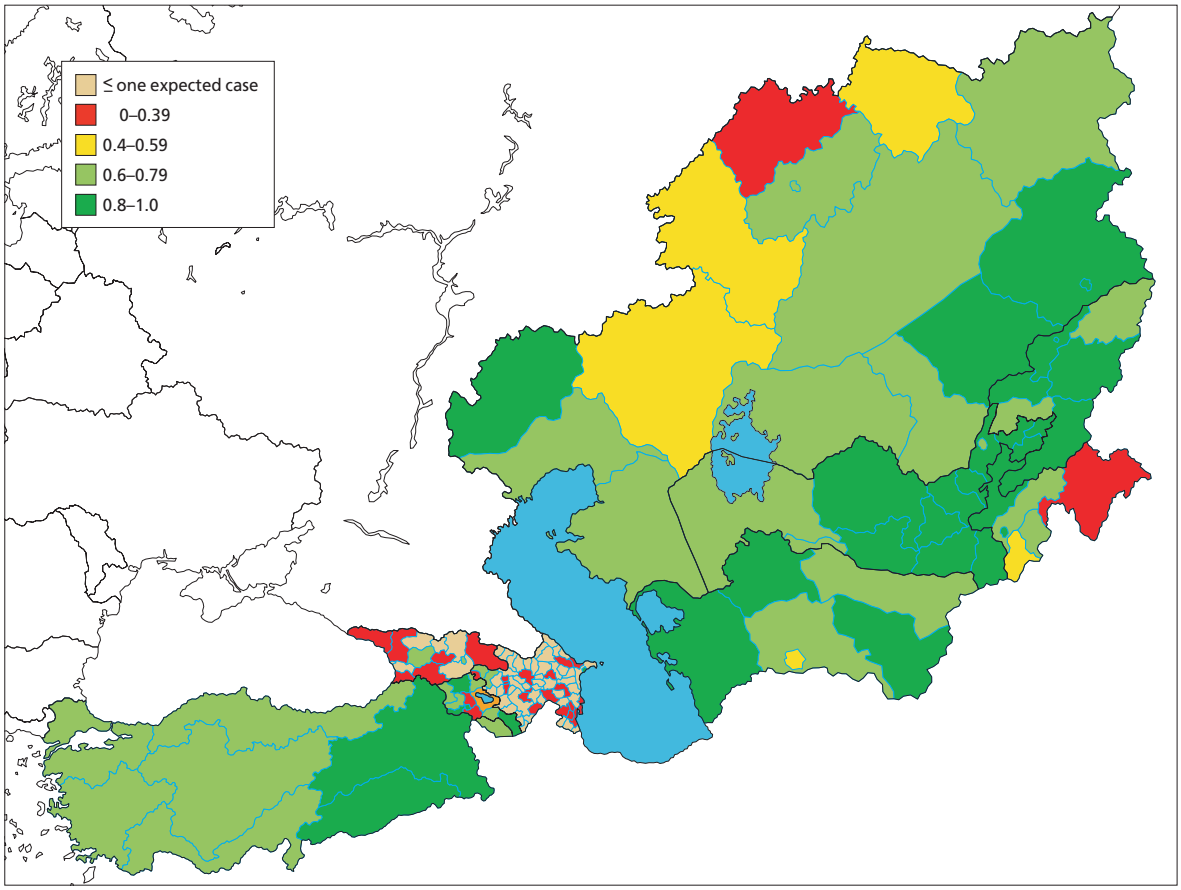
Country	Number of reported cases	Rate per 1,000,000 surviving infants per year
Azerbaijan	2	6.1
Kazakhstan	1	1.3
Russia	25	6.8
Turkey	4	0.94
Turkmenistan	1	2.7
Uzbekistan	1	0.63

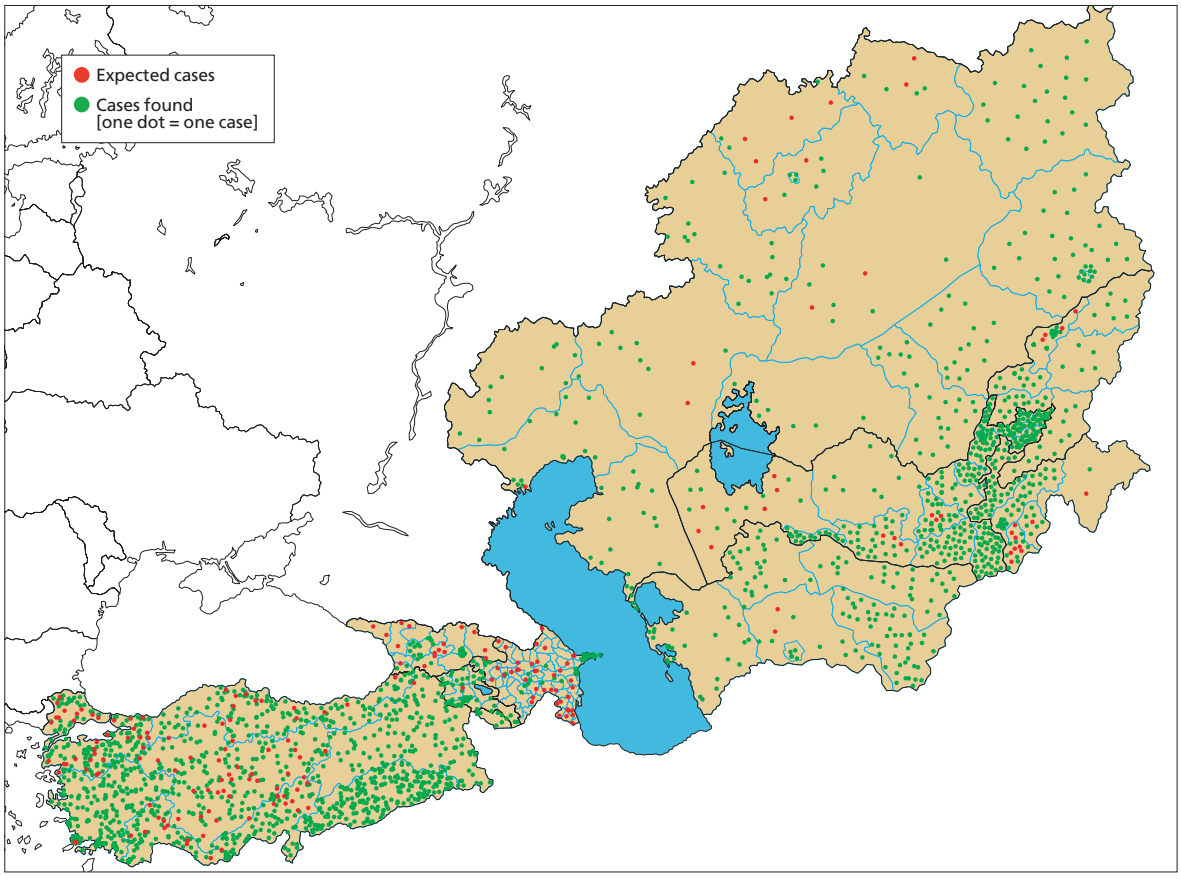
4. DETECTION OF POLIOVIRUS CIRCULATION: SURVEILLANCE AND SUPPLEMENTARY INFORMATION

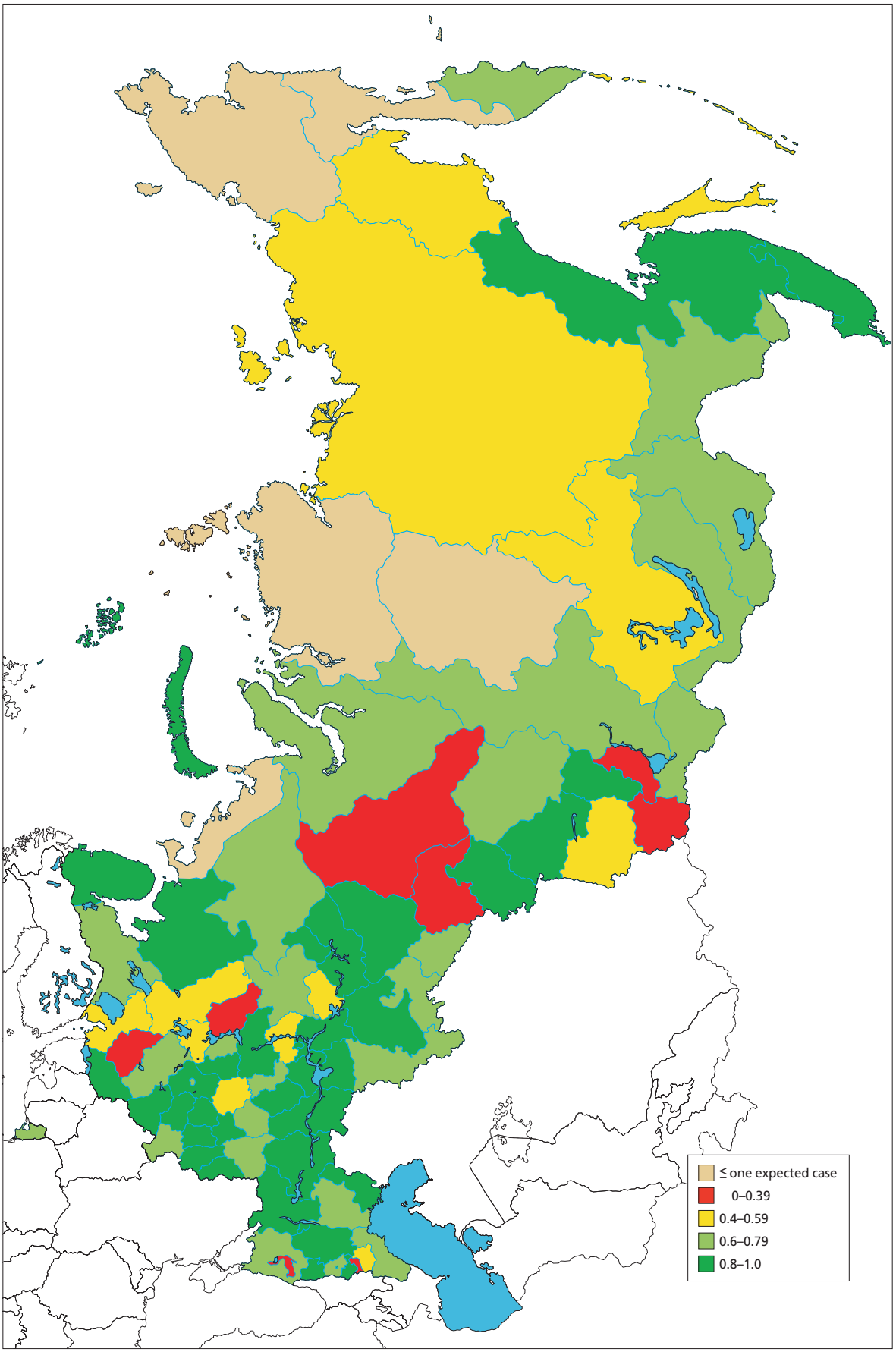
4.1 AFP Surveillance

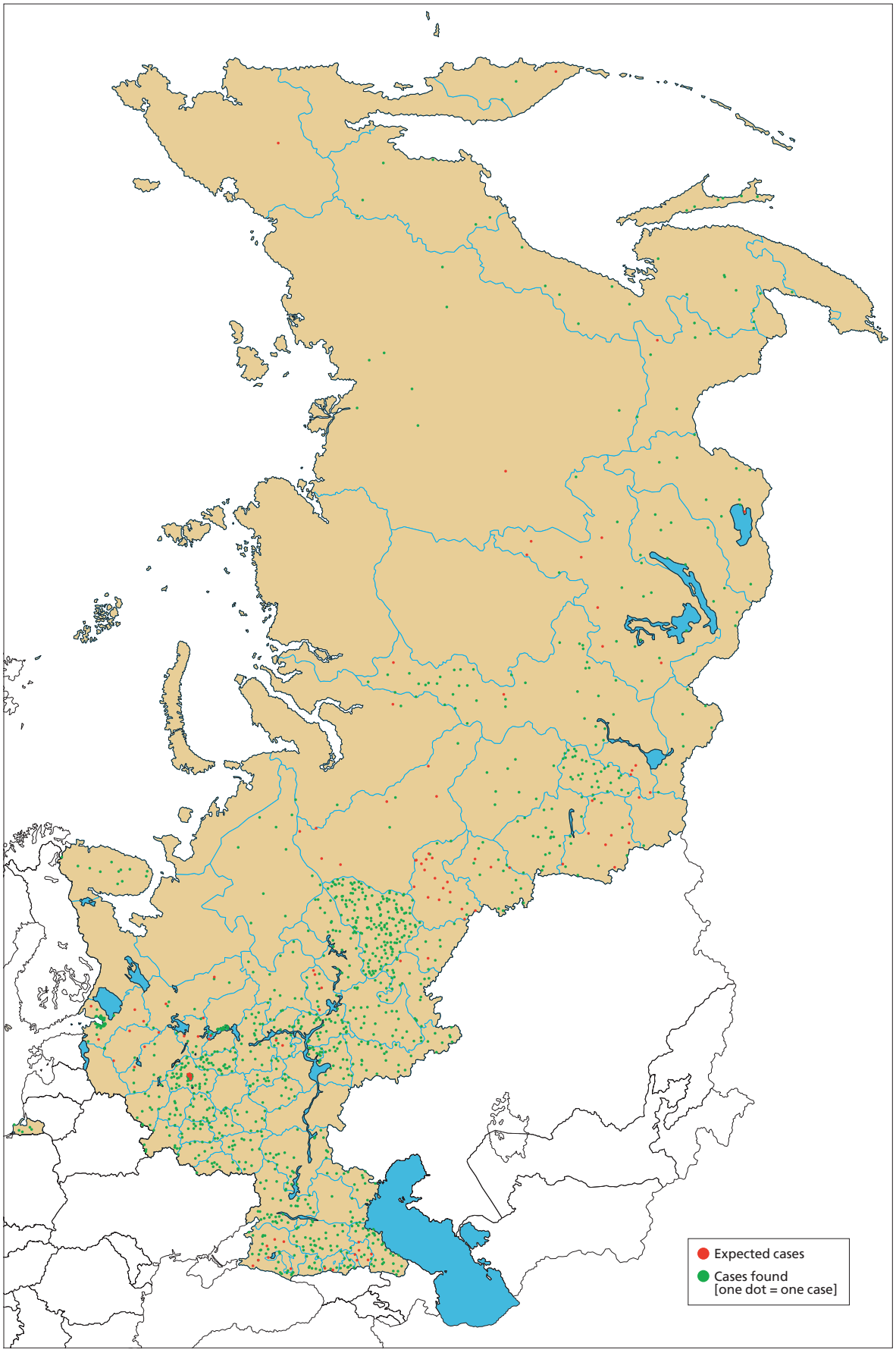
Country	AFP surveillance index			
	1999	2000	2001	2002[1]
Armenia	0.91	0.85	0.95	0.83
Azerbaijan	0.77	0.72	0.88	0.58
Georgia	0.57	0.89	0.81	1.00
Kazakhstan	0.84	0.85	0.89	0.94
Kyrgyzstan	0.79	0.87	0.97	1.00
Russian Federation	0.79	0.87	0.88	0.94
Tajikistan	0.87	0.83	0.91	0.88
Turkey	0.79	0.83	0.88	0.79
Turkmenistan	0.78	0.97	0.97	1.00
Uzbekistan	0.90	0.89	0.96	0.98

[1] 2002 AFP Index is annualised, based on data as of 7 June 2002.


≤ one expected case
0–0.39
0.4–0.59
0.6–0.79
0.8–1.0


Expected cases
Cases found
[one dot = one case]


≤ one expected case
0–0.39
0.4–0.59
0.6–0.79
0.8–1.0


Expected cases
Cases found
[one dot = one case]

Comments

MECACAR countries utilize AFP surveillance for poliomyelitis certification purposes. However, as the identification of wild poliovirus in Georgia demonstrates, important supplementary information is provided through testing of some clinical samples as well as environmental samples.

During 1999 through 2001, 22919 supplementary surveillance samples were investigated among the countries of this sub-region and poliovirus was isolated in 656 (2.9%). All these isolates were tested at the Regional Reference Laboratory (RRL) in Moscow, and proven Sabin-like.

Azerbaijan and Georgia enhanced environmental surveillance in 2001. In Azerbaijan, 96 samples were tested with 26 (27%) NPEVs and 6 (6%) Sabin-like polioviruses isolated. In Georgia, 153 samples were tested with 36 (24%) NPEVs and 11 (7%) Sabin-like polioviruses isolated.

5. LAST POLIOMYELITIS CASES AND/OR ISOLATION OF WILD POLIOVIRUS

Country	Last indigenous/outbreak case	Last imported case	Last wild virus isolated
Armenia	1995		1995
Azerbaijan	1995		1995
Georgia[1]	1991	2001	2001
Kazakhstan	1995		1980
Kyrgyzstan	1992		1993
Russian Federation	1996		1995
Tajikistan	1997		1994
Turkey	1998		1998
Turkmenistan	1996		1996
Uzbekistan	1995		1995

[1] Isolated virologically confirmed non-paralytic poliomyelitis case caused by virus originating from the Indian subcontinent in 2001.

Comments

The last polio case in the sub-region occurred during 2001, associated with an importation of poliovirus from the Indian subcontinent (97.2% homology) into Georgia. The last indigenous virus in this sub-regional zone was isolated from a case in Turkey during November 1998 (type 1).

6. IMPORTATIONS AND SUBSEQUENT ACTIONS TAKEN

During September 2001 in Georgia, a child developed fever, weakness, and tonic convulsion. Wild poliovirus type 1 was isolated from the stool samples collected from the child on 3 October. During December, supplementary immunization activities were conducted in the child's area of residence. Active surveillance was enhanced. NIDs were conducted; the first round was held 25–28 February and achieved 93% coverage and the second round was held 25–28 March and achieved 95% coverage. Georgia is planning to conduct SNIDs targeting high-risk areas in the in the fall of 2002. Armenia conducted SNIDs in March/April covering 7 bordering districts, and achieved high coverage. Azerbaijan conducted two rounds of NIDs in March and April, achieving coverage of 97% and 99%, respectively.

Georgia conducted a national stool survey, testing 740 specimens, and continues to conduct environmental surveys. No evidence of circulation of wild poliovirus was obtained by the surveys. All countries in the sub-regional zone were requested to enhance surveillance following the importation. Azerbaijan will begin environmental surveillance according to WHO recommended guidelines in 2002.

7. ASSESSMENT OF POTENTIAL RISK FOR POLIOVIRUS SPREAD FOLLOWING AN IMPORTATION

HIGH Risk

- North Caucasus region of Russia, because of significant populations of internally displaced persons/refugees and a lack of strong evidence of adequate vaccination of high-risk populations, a relatively weak health system, and epidemiology/public health services under stress.
- Tajikistan, because of significant populations of internally displaced persons/refugees and a lack of strong evidence of adequate vaccination of high-risk populations, a relatively weak health system, and epidemiology/public health services under stress.
- Southeast region of Turkey, because of low routine immunization coverage.

MEDIUM Risk

- Azerbaijan, because of significant populations of internally displaced persons/refugees and a lack of strong evidence of adequate vaccination of high-risk populations, potential delays in age-appropriate immunization, and epidemiology/public health services under stress.
- Georgia, because of significant populations of internally displaced persons/refugees and a lack of strong evidence of adequate vaccination of high-risk populations, delays in age-appropriate immunization, a suboptional health system, and epidemiology/public health services under stress.
- Uzbekistan, because of a suboptional health system, potential delays in age-appropriate immunization, and epidemiology/public health services under stress.

The other countries of the sub-regional zone and the remaining areas of Turkey/Russian Federation are judged at LOW risk based on the population's immunization coverage especially of high-risk sub-groups, size of high-risk populations, surveillance quality, and strength of the epidemiology/public health services.

8. CONTAINMENT STATUS

Country	National survey: percent of laboratories responded	Number of laboratories storing wild poliovirus	
		Total no.	No. at BSL-2
Armenia	100	1	1
Azerbaijan	100	0	-
Georgia	99	0	-
Kazakhstan	100	0	-
Kyrgyzstan	100	0	-
Russian Federation	100	8	Data not available
Tajikistan	100	0	-
Turkey	100	1	1
Turkmenistan	100	0	-
Uzbekistan	100	0	-

9. SUSTAINABILITY OF POLIO-FREE STATUS

The WHO Regional Office for Europe has received commitment from all countries that they will strive to maintain good quality immunization programmes, surveillance systems, and containment activities. Detailed plans of action have been submitted from all countries of the sub-region.

10. CONCLUSION

The likelihood of indigenous wild poliovirus circulation from 1999 to present is judged VERY LOW. Population immunity is high due to routine and supplementary immunization activities. AFP surveillance has been of high quality including sub-national sensitivity, and has led to ready detection of VAPP cases. Additional virological testing is also performed in some countries and detected wild poliovirus in Georgia, as well as

Sabin-like poliovirus in enterovirus surveillance and environmental testing (albeit not presented here, since without rigid quality assurrance protocols). These supplementary methods of faecal specimen surveys and environmental surveillance also supported the absence of subsequent circulation of wild poliovirus in Georgia following detection of imported virus.

Press releases

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Media Advisory
17 June 2002

Europe on track to be certified polio-free on 21 June 2002
Event would mark historic public health milestone

COPENHAGEN – The World Health Organization (WHO) European Region, comprising 873 million people in 51 countries*, is on track to achieve polio-free certification on 21 June. The European Regional Commission for Certification of Poliomyelitis Eradication, an independent body of international public health experts, will meet in Copenhagen, Denmark on June 20 and 21 to determine whether the European Region has won the battle against poliomyelitis. With no indigenous cases of polio in the past three years, Europe would join the Americas and the Western Pacific in achieving this historic certification. The goal to eradicate polio globally by 2005 remains within reach.

WHAT: Polio experts to announce decision on European polio-free certification and outline remaining challenges to global polio eradication .

WHERE: International Press Centre
2, Vestergade
DK-1456 Copenhagen

WHO: Dr Marc Danzon, Regional Director for Europe, World Health Organization
Sir Joe Smith, Chairman, European Regional Commission for Certification of Poliomyelitis Eradication
Dr. David Fleming, Acting Director, US Centers for Disease Control and Prevention
Rudolf Hörndler, Chairman, European Regional PolioPlus Committee, Rotary International
Phillip O'Brien, UNICEF Regional Director, Central and Eastern Europe

WHEN: 10:00 a.m., Friday, 21 June

For further information, please contact:
Liuba Negru, WHO, Copenhagen +45 3917-1344, mobile +45 20 45 92 74, **lne@who.dk**
Claudia Drake, WHO, Geneva +41 22 791-3832, mobile +41 79 475 5471, **drakec@who.int**
Christine McNab, WHO, Geneva +41 22 791-4688, **mcnabc@who.int**
Jo Bailey, UNICEF, New York +1 212 326-7566, **jbailey@unicef.org**
Vivian Fiore, Rotary International, Chicago +1 847 866-3234, **fiorev@rotaryintl.org**

For broadcasters: Video **B-roll can be ordered from Christine McNab at WHO. B-roll will also be broadcast on Thursday, 20 June 2002 on the European Broadcasting Union feed at 1405 Central European Time (1205 GMT). For more information about the Global Polio Eradication Initiative, see **www.polioeradication.org** and **www.endofpolio.org**.

*** Member States of the WHO European Region:** Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia Herzegovina, Bulgaria, Croatia, Czech R, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Israel, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malta, Moldova, Monaco, Netherlands, Norway, Poland, Portugal, Romania, Russia, San Marino, Slovak R, Slovenia, Spain, Sweden, Switzerland, T.F.Y.R. Macedonia, Tajikistan, Turkey, Turkmenistan, Ukraine, United Kingdom, Uzbekistan, Yugoslavia.

Press releases

WORLD HEALTH ORGANIZATION EUROPE

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Пресс-релиз
17 июня, 2002

Европа получает статус региона, свободного от полиомиелита 21 июня 2002
Историческая веха в развитии общественного здравоохранения

КОПЕНГАГЕН – Европейский регион ВОЗ, включающий 51 страну с населением 873 миллиона человек* - на пороге получения статуса региона, свободного от полиомиелита 21 июня. Европейская региональная комиссия по сертификации ликвидации полиомиелита - независимый орган, объединяющий международных экспертов в области здравоохранения на заседании в г. Копенгаген, Дания 20 и 21 июня должна принять решение о ликвидации полиомиелита в Европейском регионе. За последние три года в Европе не было зарегистрировано ни одного местного случая полиомиелита, а это означает, что Европа, наряду с Северной и Южной Америкой и странами западного тихоокеанского бассейна, будет сертифицирована как регион, свободный от полиомиелита. Поставленная цель глобальной ликвидации полиомиелита в 2005г. - близка к осуществлению.

ПРЕДМЕТ: Эксперты по полиомиелиту объявят о решении сертифицировать Европу как регион, свободный от полиомиелита и поставят дальнейшие задачи по ликвидации полиомиелита во всем мире.

МЕСТО: Международный Пресс Центр
2, Вестергаде
Дания-1456 Копенгаген

СОСТАВ: Д-р Марк Данзон, Региональный директор, Европейское бюро ВОЗ
Сэр Джозеф Смит, Председатель, Европейская региональная комиссия по сертификации ликвидации полиомиелита
Д-р Дэвид Флеминг, И.о. директора, Центры по борьбе с болезнями и их профилактике (США)
Рудолф Хорндлер, Председатель, Европейский региональный комитет ПолиоПлюс, «Ротари Интернэшнл»
Филипп О'Брайен, Региональный директор ЮНИСЕФ, Центральная и Восточная Европа

ВРЕМЯ: 10:00, Пятница, 21 июня

Для получения более подробной информации обращайтесь:
Лиюба Негру, ВОЗ, Копенгаген (45) 3917-1344, lne@who.dk
Клаудия Дрейк, ВОЗ, Женева (41-22) 791-3832, drakec@who.int
Кристина МакНаб, ВОЗ, Женева (41-22) 791-4688, mcnabc@who.int
Джо Бэйли, ЮНИСЕФ, Нью-Йорк (1-212) 326-7566, jbailey@unicef.org
Вивиан Фиоре, «Ротари Интернэшнл», Чикаго (1 847) 866-3234, fiorev@rotaryintl.org

Для вещателей: Видео **ролик можно заказать у Кристины МакНаб в ВОЗ. Этот ролик будет транслироваться в четверг, 20 июня 2002 по каналу Европейского теле- и радиовещательного союза в 14.05 по центральноиу европейскому времени (12.05 по Гринвичу). Для более подробной информации о Инициативе по глобальной ликвидации полиомиелита посетите сайты www.polioeradication.org и www.endofpolio.org.

*** Государства-члены ВОЗ европейского региона:** Австрия, Азербайджан, Албания, Андорра, Армения, Беларусь, Бельгия, Болгария, Босния Герцеговина, Великобритания, Венгрия, Германия, Греция, Грузия, Дания, Израиль, Ирландия, Исландия, Испания, Италия, Казахстан, Кыргызстан, Латвия, Литва, Люксембург, Македония, Мальта, Молдова, Монако, Нидерланды, Норвегия, Польша, Португалия, Россия, Румыния, Сан-Марино, Республика Словакия, Словения, Таджикистан, Туркменистан, Турция, Швейцария, Швеция, Узбекистан, Украина, Финляндия, Франция, Хорватия, Республика Чехия, Югославия, Эстония.

Press releases

WORLD HEALTH ORGANIZATION EUROPE

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Avis à la presse
17 juin 2002

L'Europe devrait être certifiée indemne de poliomyélite le 21 juin 2002
Cela représenterait un jalon historique dans le domaine de la santé publique

COPENHAGUE – La Région européenne de l'Organisation mondiale de la santé (OMS), qui compte 873 millions d'habitants vivant dans 51 pays*, devrait être certifiée indemne de poliomyélite le 21 juin. La Commission régionale européenne pour la certification de l'éradication de la poliomyélite, qui est un organe international indépendant composé d'experts de la santé publique, se réunira à Copenhague (Danemark) les 20 et 21 juin pour déterminer si la Région européenne a remporté la lutte contre la poliomyélite. Il n'y a pas eu de cas autochtone de cette maladie au cours des trois dernières années et la Région européenne devrait rejoindre la Région des Amériques et celle du Pacifique occidentale, qui ont déjà obtenu cette certification historique. L'objectif d'éradication mondiale de la poliomyélite d'ici 2005 peut être atteint.

QUOI : Des experts de la poliomyélite devraient annoncer une décision concernant la certification de l'Europe en tant que région indemne de poliomyélite et décrire les étapes à parcourir pour parvenir à l'éradication mondiale de cette maladie.

OÙ : International Press Centre
2, Vestergade
DK-1456 Copenhague

QUI : Dr Marc Danzon, Directeur régional pour l'Europe de l'Organisation mondiale de la santé
Sir Joe Smith, Président de la Commission régionale européenne pour la certification de l'éradication de la poliomyélite
Dr David Fleming, Directeur par intérim des Centers for Disease Control and Prevention (États-Unis)
Rudolf Hörndler, Président du European Regional PolioPlus Committee, Rotary International
Phillip O'Brien, Directeur régional de l'UNICEF pour l'Europe centrale et orientale

QUAND : Vendredi 21 juin à 10 heures

Pour de plus amples renseignements, veuillez contacter :
Liuba Negru, OMS, Copenhague : (45) 3917-1344, mobile +45 20 45 92 74 lne@who.dk
Claudia Drake, OMS, Genève : (41-22) 791-3832, mobile +41 79 475 5471 drakec@who.int
Christine McNab, OMS, Genève : (41-22) 791-4688, mobile +41 22 791 4688 mcnabc@who.int
Jo Bailey, UNICEF, New York : (1-212) 326-7566, jbailey@unicef.org
Vivian Fiore, Rotary International, Chicago : (1 847) 866-3234, fiorev@rotaryintl.org

À l'intention des organismes de télévision : Vous pouvez obtenir des **images illustratives sur ce thème en les commandant auprès de Christine McNab, de l'OMS. Ces images seront également diffusées le jeudi 20 juin 2002 par l'Union européenne de radio-télévision à 14h05, heure de Paris (12h05 TU).** Pour obtenir plus d'informations sur l'Initiative mondiale d'éradication de la poliomyélite, voir les sites www.polioeradication.org et www.endofpolio.org.

* **États membres de la Région européenne de l'OMS :** Albanie, Allemagne, Andorre, Arménie, Autriche, Azerbaïdjan, Bélarus, Belgique, Bosnie Herzégovine, Bulgarie, Croatie, Danemark, Espagne, Estonie, ex-République yougoslave de Macédoine, Finlande, France, Géorgie, Grèce, Hongrie, Irlande, Islande, Italie, Israël, Kazakhstan, Kyrgyzistan, Lettonie, Lituanie, Luxembourg, Malte, Moldova, Monaco, Norvège, Ouzbékistan, Pologne, Pays-Bas, Portugal, République tchèque, Roumanie, Royaume-Uni, Russie, Saint-Marin, Slovaquie, Slovénie, Suède, Suisse, Tadjikistan, Turkménistan, Turquie, Ukraine, Yougoslavie.

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Pressenotiz EURO/03/02
Kopenhagen, 14. Juni 2002

Die Europäische Regionale Zertifizierungskommission tagt: Die Europäische Region der WHO wird voraussichtlich am 21. Juni 2002 für poliofrei erklärt

Am 20. und 21. Juni hält die Europäische Regionale Zertifizierungskommission im WHO-Regionalbüro für Europa ihre 15. Tagung ab, bei der darüber entschieden werden soll, ob die Poliomyelitis in der Europäischen Region wirklich ausgerottet ist. Zu der Tagung werden 177 Gesundheitsexperten erwartet. Die Kommission wird die Faktenlage in den 51 Mitgliedstaaten der Region überprüfen um bestätigen zu können, dass die Übertragung von Polio-Wildviren unterbrochen wurde und die Region ausreichend dafür gerüstet ist, das Virus aufzuspüren und zu kontrollieren.

Die Kommission setzt sich aus herausragenden Public-Health-Experten zusammen. Seit 1996 tagt sie regelmäßig und überzeugt sich bei Länderbesuchen vor Ort von den Fortschritten, die in der Region bei der Umsetzung von Programmen für die Ausrottung der Poliomyelitis erzielt wurden. Die Tagung im Juni 2002 wird zeigen, was man mit den ungeheuren Anstrengungen erreicht hat, die unternommen wurden, seit 1988 von der Weltgesundheitsversammlung der Aufruf zur weltweiten Ausrottung der Poliomyelitis erging. Die Kommission wird sich mit den Bekämpfungsmaßnahmen befassen, die ergriffen wurden, nachdem 2001 Polio-Wildviren in die Region eingeschleppt worden waren, und sie wird sich ansehen, inwieweit die Hochsicherheitslabors mittlerweile imstande sind, eine sachgerechte Lagerung von Polioviren sicherzustellen. Danach wird die Kommission entscheiden, ob die Europäische Region für poliofrei erklärt werden kann.

Der Kommissionsbeschluss bildet den Höhepunkt von sechs Jahren erfolgreicher Zusammenarbeit im Rahmen der globalen Partnerschaft für die Eradikation der Poliomyelitis. Die führenden Partner der WHO sind dabei: Rotary International, die Centers for Disease Control and Prevention (CDC) in den Vereinigten Staaten und das Kinderhilfswerk der Vereinten Nationen (UNICEF).

Für alle 51 Mitgliedstaaten der Europäischen Region der WHO gilt, dass drei Jahre lang keine endemischen Poliofälle mehr gemeldet wurden. Die letzte nachweisliche Übertragung der endemischen Poliomyelitis fand 1998 in der Türkei statt.

Der Beschluss der Kommission wird am Freitag, d. 21. Juni 2002 um 10.00 Uhr (MEZ) auf einer im Internationalen Pressezentrum von Kopenhagen anberaumten Pressekonferenz bekannt gegeben. Außerdem finden in Ankara, Brüssel, Genf, Moskau und Rom Informationssitzungen für Vertreter der Massenmedien statt, und über das Netz der Union der Europäischen Rundfunkorganisationen werden Videonachrichten ausgestrahlt.

WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR EUROPE

WELTGESUNDHEITSORGANISATION
REGIONALBÜRO FÜR EUROPA

ORGANISATION MONDIALE DE LA SANTÉ
BUREAU RÉGIONAL DE L'EUROPE

ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ
ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

Fifteenth Meeting of the Regional Commission for the Certification of Poliomyelitis Eradication
Copenhagen, Denmark, 19 - 21 June 2002

5037088/5

List of participants

REGIONAL CERTIFICATION COMMISSION

REGIONAL CERTIFICATION COMMISSION

Prof Margareta Böttiger
Gransäter
S-132 36 Saltsjö-Boo
Sweden
Tel. No.: +46 8 570 300 46
Fax No.: +46 8 570 00 145
Email: bottiger@swipnet.se

Prof István Dömök
Scientific Adviser
Czobor St. 41/b
H-1147 Budapest
Hungary
Tel./Fax No.: +36 1 252 9530
Email: domokis@axelero.hu

Dr Walter Dowdle
Director of Programs
The Task Force for Child Survival and Development
750 Commerce Drive
Suite 400
Decatur, Georgia 30030
United States of America
Tel. No.: +1 404 687 5608
Fax No.: +1 404 37 1 1087
Email: wdowdle@taskforce.org

Dr George F. Drejer
Paediatrician
c/o Kilimanjaro Christian Medical Centre
(KCMC) P.O. Box 3010
Moshi
United Rep. of Tanzania
Tel. No.: +255(0)27 2752040
Email: g.drejer@eoltz.com

Prof Sergey G. Drozdov
Director
M. P. Chumakov Institute of Poliomyelitis and Viral Encephalitis
Russian Academy of Medical Sciences (RAMS)
Kievskoe Shosse 27
142782 Moscow
Russian Federation
Tel. No.: +7 095 439 90 07
Fax No.: +7 095 549 67 60

Dr Donato Greco
Director
Laboratory of Epidem. & Biostatistics
Istituto Superiore di Sanità
WHO Collaborating Centre for Communicable Diseases Surveillance
Viale Regina Elena, 299
I-00161 Rome
Italy
Tel. No.: +39 06 4990 3390
Fax No.: +39 06 4990 3172
Email: greco@iss.it

Sir Joseph Smith
Chairman
EURO Commission for Certification of Polio Eradication
95 Lofting Road
Islington, London N1 1JF
United Kingdom
Tel. No.: +44 20 7607 9413
Email: joseph.smith1@btinternet.com

Prof Burghard Stück
Schulenburgring 126
D-12101 Berlin
Germany
Tel. No.: +49 30 785 9008
Email: Drstueck@snafu.de

PARTICIPANTS

Albania

Dr Bujar Brahimaj
Epidemiologist
Institute of Public Health
Virology Laboratory
Tirana
Tel. No.: +355 42 63 553
Fax No.: +355 42 70059
Email: iphealth@sanx.net

Dr Eduard Kakarriqi
Institute of Public Health
EPI Programme
Rruga 'Aleksander Moisiu' 80
Tirana
Email: iphealth@sanx.net

Dr Petrit Vasili
Vice Minister of Health
Ministry of Health
Blv. 'Bajram Curri'
Tirana - Shqiperi
Tel. No.: +355 436 4 622
Fax No.: +355 436 2554
Email: petritvasili@moh.gov.al

Andorra

Dr Margarita Coll Armangué
Chef
Service de surveillance épidémiologique
Ministère de la Santé et du Bien-être
Av. Princep Benlloch, 30, 4ème
Andorre la Vielle
Tel. No.: +376 860 345
Fax No.: +376 861 933
Email: min.sanitat@andora.ad

Dr Josep Vidal Tort
Information and Sanitary Studies Service
Ministry of Health and Welfare
Hospital de Clínic de Barcelona
c/o Dra Margarita Coll Armangué
Av. Princep Benlloch num. 30
Andorra La Vella
Tel. No.: +376 86 03 45 ex.229
Fax No.: +376 86 19 33

Armenia

Dr Sirak Sukiasyan
EPI Manager, Deputy Director of the Centre of Hygienic and Anti-Epidemic Surveillance
Republican Centre for Hygienic and Epidemic Surveillance
D Malian Str. 37
Yerevan 375096
Tel. No.: +347 1 613369
Email: wholo@armhealth.am

Austria

Prof Ingomar Mutz
A.ö. Landeskrankenhaus Leoben
Vorstand der Abteilung für Kinder und Jugendliche
Vordernberger Strasse 42
A-8700 Leoben
Tel. No.: +43 3842 401 2330
Fax No.: +43 3842 401 2738
Email: ingomar.mutz@lkh-leoben.at

Azerbaijan

Prof Dilara Gasimova
Head, National Certification Commission
Medical Prevention Institute
Hadjibekov Street, 38 Fl. 39
370065 Baku
Tel. No.: +994 12 98 62 73
Fax No.: +994 12 93 76 38

Dr Firudin Huseynov
Director General
Azerbaijan Republican Centre for Epidemiology and Hygiene
J. Cabbarli kuc., 34
370065 Baku
Tel. No.: +994 12 94 70 12
Fax No.: +994 12 94 84 31
Email: FMA@who.baku.az

Dr Abbas Valibayov
Deputy Minister of Health
Ministry of Health of Azerbaijan
4, Kicik Deniz kuc.,
370014 Baku
Tel. No.: +994 12936055
Fax No.: +994 12987260

Belarus

Dr Vladimir Golub
Head
National Center of Hygiene and Epidemiology
Ministry of Health
50 Kazintca str.
220099 Minsk
Tel. No.: +375 172 784369
Fax No.: +375 172 784207
Email: hygiene@rcge.belpak.minsk.by

Dr Alexander S. Petkevich
Deputy Director
Belarussian Research Institute for Epidemiology and Microbiology (BRIEM)
4, K. Zetkin Str.
220050 Minsk
Tel. No.: +375 172 26 58 61
Fax No.: +375 172 26 52 67
Email: asp@briem.ac.by

Dr Elena Olegovna Samoilovich
Chief, Immunoprophylaxis Laboratory
Belarus Research Inst. for Epidemiology and Microbiology
4, K. Zetkin Str.
220050 Minsk
Tel. No.: +375 172 20 93 05
Fax No.: +375 172 26 52 67
Email: poliobel@gtp.by

Belgium

Prof Jan Desmyter
Catholic University of Leuven
Dept. of Virology and Epidemiology
REGA Institute
Minderbroedersstraat 10
B-3000 Leuven
Tel. No.: +32 16 33 21 60
Fax No.: +32 16 33 21 31
Email: jan.desmyter@uz.kuleuven.ac.be

Dr Tinne Lernout
Scientific Institute of Public Health
Epidemiology Section
14, J.Wytsmanstraat
B-1050 Brussels
Tel. No.: +32 2 642 5747
Fax No.: +32 642 5410
Email: tinne.lernout@iph.fgov.be

Bosnia & Herzegovina

Dr Srboljub Golubovic
Head
Clinic for Infectious Diseases
Clinical Center Banja Luka
Zdrave Korde
78000 Banja Luka
Bosnia & Herzegovina
Tel. No.: +387 51 309 993
Fax No.: +387 71 310 530

Prof Zlatko Puvacic
EPI Coordinator for B&H
Federal Public Health Institute
Chief Federal Epidemiologist
Titova 7
33000 Sarajevo
Bosnia & Herzegovina
Tel. No.: +387 33 208 815
Fax No.: +387 33 456 855
Email: puvacici@bih.net.ba

Bulgaria

Prof Ivan Dikov
Military Medical Academy
Georgui Sofijski str. 3
Sofia
Office +359 2 917 29 88
Fax +359 2 958 73 90
E-mail wholobg@who.bg

Dr Snejana Gyurova
Head
National Enterovirus Laboratory
NCIPD
Blvd. Stoletov 44A
1233 Sofia
Tel. No.: +359 23 10042
Fax No.: +359 29 433075
Email: polionl@infotel.bg

Dr Mira Kojuharova
National Expert
National Centre of Infectious and Parasitic Diseases
Departmnt of Epidemiology
Yanko Sakazov Blvd. 26
BG-1504 Sofia
Bulgaria
Tel. No.: +359 2 46 55 17
Fax No.: +359 2 46 55 17
Email: j.levi@techno-link.com

Dr Angel Kunchev
Head
Department for Communicable Diseases Control
Ministry of Health
5, Sveta Nedelja Square
Sofia 1000
Tel. No.: +359 2 93 01 251
Fax No.: +359 2 98 83 414
Email: epimngr@aster.net

Croatia

Dr Bernard Kaic
National EPI Programme Manager
Croatian National Institute of Public Health
Department of Epidemiology of Infectious Diseases
Rockefellerova 7
HR-10000 Zagreb
Tel. No.: +385 1 468 3005
Fax No.: +385 1 468 3004
Email: bernard.kaic@zg.hinet.hr

Prof Ivan Vodopija
President
Croatian National Health Council
Zagreb City Institute of Public Health
Mirogojska ul. 16
HR-10000 Zagreb
Tel. No.: +385 1 46 96 151
Fax No.: +385 1 46 78 002

Czech Republic

Dr Jitka Castkova
National Institute of Public Health
Centre of Epidemiology
Srobarova 48
100 42 Prague 10
Tel. No.: +420 2 67 08 24 86
Fax No.: +420 2 72 74 14 33
Email: epidem@szu.cz

Dr Gustav Walter
Senior Officer & EPI manager
Department of Epidemiology and Microbiology
Ministry of Health
Palackého nam. 4
128 01 Prague 2
Tel. No.: +420 2 249 72184
Fax No.: +420 2 249 15996
Email: gustav.walter@mzcr.cz

Denmark

Dr Peter Skinhøj
Chief Physician
Rigshospitalet
Dept. of Infectious Diseases
Tagensvej 20
DK-2200 Copenhagen
Tel. No.: +45 35 45 7741
Fax No.: +45 35 45 6648
Email: skinhoej@rh.dk

Estonia

Dr Silver R. Joks
Head
Central Laboratory of Virology
Health Protection Inspectorate
Kotka st. 2
111315 Tallinn
Tel. No.: +372 6 943 632
Fax No.: +372 6 943 601
Email: virlab@hot.ee

France

Dr Denise Antona
Institut de Veille Sanitaire
12, rue du Val d'Osne
94415 Saint Maurice Cedex
Tel. No.: +33 1 41 79 67 24 /
Fax No.: +33 1 41 79 67 66 /
Email: d.antona@invs.sante.fr

Dr Thierry M. Comolet
Containment Coordinator
Ministère de l'Emploi et de la Solidarité
Direction Générale de la Santé
Bureau des Maladies Transmissibles
8, avenue de Ségur
F-75007 Paris
Tel. No.: +33 1 40 56 50 87
Fax No.: +33 1 40 56 78 00
Email: Thierry.comolet@sante.gouv.fr

Ms Caroline Delarue
Member, Poliovirus Containment Taskforce
Ministry of Health
General Directorate of Health
8, avenue Ségur
Paris 75530 07 SP
Tel. No.: +33 1 4056 5213
Fax No.: +33 1 4056 7800
Email: caroline.delarue@sante.gouv.fr

Georgia

Dr Levan Baidoshvili
Coordinator of Immunization Programme
National Centre for Disease Control
Asatiani Str. 9
380077 Tbilisi
Tel. No.: +995 32 39 59 04
Fax No.: +995 32 94 04 85
Email: ncdc@ncdc.ge
Lbaido @ncdc.ge

Dr Tamar Kutateladze
Head, Polio National Laboratory
National Centre for Disease Control
9, Asatiani Ave.
380077 Tbilisi
Tel. No.: +995 32 398 946
Fax No.: +995 32 940 485
Email: polionlge@wanex.net

Prof Irakli V. Pavlenishvili
Deputy Rector
State Medical Academy
Chavchavadze Ave 29
380030 Tbilisi
Tel. No.: +995 32 23 42 03
Fax No.: +995 32 23 03 91
Email: irakli797@yahoo.com

Germany

Dr Fabian Feil
Secretary of the National Committee
Niedersächsisches Landesgesundheitsamt
Polio Eradication
Roesebeckstr. 4-6
30449 Hannover
Tel. No.: +49 511 4505 136
Fax No.: +49 511 4505 140

Dr Gernot Rasch
Robert Koch Institut
Epidemiology and Prevention of Infectious Diseases
Seestr. 10
D-13353 Berlin
Tel. No.: +49 30 4547 34 10
Fax No.: +49 30 4547 35 11
Email: raschg@rki.de

Prof Dr Adolf Windorfer
Landesgesundheitsamt
Niedersächsisches
Roesebeckstr. 4-6
D-30449 Hanover
Tel. No.: +49 511 4505 500
Fax No.: +49 511 4505 502
Email: Adolf.Windorfer@NLGA.niedersachsen.de

Greece

Prof Christos Kattamis
Professor of Paediatrics
AGIA SOFIA
University of Athens
Children's Hospital
Thivon and Livadias
Goudi, TK 11527
Tel. No.: +30 10 7467467
Fax No.: +30 10 7795762
Email: ckatamis@cc.uoa.gr

Prof Jenny Kourea-Kremastinou
Dean
National School of Public Health
196, Alexandras Avenue
GR-Athens 11521
Tel. No.: +30 10 646 5982
Fax No.: +30 10 643 2258
Email: jkrem@otenet.gr

Hungary

Dr Katalin Rapi
Director
Szent Laszlo Hospital
Gyali ut 5-7
1097 Budapest
Hungary
Fax No.: +36 1 2156501

Dr Adam Vass
Head, Division of Epidemiology
Office of the Chief Medical Officer
Gyali ut 2-6
H-1097 Budapest,
Hungary
Tel. No.: +36 1 215 53 31
Fax No.: +36 1 215 53 11
Email: vassadam.oth@antsz.hu

Iceland

Dr Haraldur Briem
State Epidemiologist
Directorate of Health
Section for Infectious Disease Control
Laugavegur 116, 2nd floor
IS-150 Reykjavik
Iceland
Tel. No.: +354 510 1900
Fax No.: +354 510 1920
Email: hbriem@landlaeknir.is

Ireland

Mr Brian Mullen
Principal Officer
Hawkins House
Department of Health and Children
Dublin 2
Ireland
Tel. No.: +353 1 635 4310
Fax No.: +353 1 6771695
Email: Brian_Mullen@health.irlgov.ie

Israel

Prof Tiberio-Alex Swartz
Chairman for Vaccines and Biologicals
Sackler School of Medicine
Tel Aviv University
Department of Epidemiology and Preventive Medicine
Ramat Aviv, P.O.B. 39040
Tel Aviv 69978
Israel
Tel. No.: +972 3 642 7581
Fax No.: +972 3 640 9868
Email: tswartz@post.tau.ac.il

Italy

Dr Dina De Stefano Caraffa
Director
Dipartimento della Prevenzione, Uffi III
Ministero della Sanita
Communicable Diseases Unit
Via della Sierra Nevada 60
I-00144 Rome
Italy
Tel. No.: +39 06 5994 4211
Fax No.: +39 06 5994 4242
Email: dm.caraffa@sanita.it

Prof Gaetano Maria Fara
Director, Inst. Hygiene
University 'La Sapienza'
Piazzale Aldo Moro 5
I-00185 Rome
Italy
Tel. No.: +39 335 636 0860
Fax No.: +39 06 4456371
Email: gaetanomaira.fara@uniroma1.it

Kazakhstan

Dr Anatoly Alex. Belonog
Vice-Minister, Chief Sanitary Doctor
Ministry of Health
66, Moskovskaya str.
473000 Astana
Tel. No.: +7 3172 31 79 59
Fax/Phone +7 3172 31 78 07
E-mail Vaccina@zdrav@ketner.kz

Dr Raisa Bondareva
National Reference Laboratory
ul. Ayezova 84
480008 Almaty
Kazakhstan
Tel. No.: +7 3272 43 15 33
Fax No.: +7 3272 43 26 55
Email: 8528127@public.asdc.kz

Dr Gulnur Madigoz. Kembabanova
Chief specialist
Ministry of Health
Epidemiology Control Division
66, Moskovskaya str.
473000 Astana
Kazakhstan
Tel. No.: +7 3172 31 78 07
Fax No.: +7 3172 31 79 59
Email: vaccina@kepter.kz

Prof Auken M. Mashkeev
Director Assistant
Scientific Centre of Paediatrics and Child Surgery
pr. Alfarabe 146
480090 Almaty
Kazakhstan
Tel. No.: +7 3272 48 81 21
Fax No.: +7 3272 93 28 76
Email: ioparty@mail.online.kz

Kyrgyzstan

Prof Duishe K. Kudayarov
Director
Research Institute for Obstetrics and Pediatrics
Togolok Leoldo str. 1
720021 Bishkek
Kyrgyzstan
Tel. No.: +996 312 22 44 23
Fax No.: +996 312 22 67 19

Dr Ljudmila Steinke
Consultant
Ministry of Health
Frunze Str. 535
720021 Bishkek
Kyrgyzstan
Tel. No.: +996 312 66 11 07
Fax No.: +996 312 66 06 62

Latvia

Dr Aija Griskevica
Deputy Head
State Agency - Public Health Agency
Department of Epidemiological Surveillance of Infectious Diseases
7 Klijanua str.
LV-1012 Riga
Tel. No.: +371 737 4921
Fax No.: +371 737 5940
Email: griskevica@sva.lv

Prof Ludmila Viksna
Chief
Traditional Infectology, Tuberculosis and AIDS chair
Latvian Medical Academy
3 Linezera Str.
LV-1006 Riga
Latvia
Tel. No.: +371 701 4500
Fax No.: +371 701 4568
Email: LIC.birojs@infectology.lv

Lithuania

Dr Vytautas Bakasenas
EPI Manager
Centre for Communicable Diseases
Prevention and Control under the Ministry of Health of the Republic of Lithuania
Kalvariju str. 153,
LT-2042 Vilnius
Lithuania
Tel. No.: +370 27790 51
Fax No.: +370 2 77 8761
Email: ULPKC@takas.lt

Prof Vytautas Usonis
Vilnius University Lithuania
Centre of Pediatrics
4 Santariskiu str., P.O. Box 2561
LT-2600 Vilnius
Lithuania
Tel. No.: +370 98 30779
Fax No.: +370 2 209001
Email: usonis@ktl.mii.lt

Malta

Prof H.M. Gilles
Professor of Public Health
Liverpool School of Tropical Medicine
Pembroke Place
GB-Liverpool L3 5QA
United Kingdom
Tel. No.: +44 151 708 9393
Fax No.: +44 151 708 8733
Email: jhowley@liv.ac.uk

Dr Jackie Maistre Melillo
Medical Officer
Department of Public Health
Disease Surveillance Unit
37-39 Rue D'Argens
Msida MSD 05
Malta
Tel. No.: +356 2132 4086/5
Fax No.: +356 2131 9243

Monaco

Not represented

Netherlands

Mrs Anita A. Warris-Versteegen
Inspector for Infectious Diseases
Inspectorate for Health Care
P.O. Box 16119
NL-2500 BC The Hague
Netherlands
Tel. No.: +31 703 405 979
Fax No.: +31 703 405 394
Email: aa.warris@igz.nl

Norway

Prof Miklos Degre
Institute of Microbiology
Rikshospitalet
N-0027 Oslo
Norway
Tel. No.: +47 23 07 11 63
Fax No.: +47 23 07 11 10
Email: degre@labmed.uio.no

Dr Ivar Oerstavik
Director, Department of Virology
National Institute of Public Health
Geitmyrsvn. 75 - Postboks 4404,
Torshov
N-0403 Oslo
Norway
Tel. No.: +47 2 204 2285
Fax No.: +47 2 204 2447

Poland

Prof Wieslaw Magdzik
Director
Department of Epidemiology
National Institute of Hygiene
ul. Chocimska 24
PL-00791 Warsaw
Poland
Tel. No.: +48 22 849 0431
Fax No.: +48 22 849 74 84
Email: wmagdzik@pzh.gov.pl

Portugal

Dr Francisco George
Subdirector-Geral da Saúde
Ministry of Health
Alameda D. Afonso Henriques, 45
1049-005 Lisbon
Portugal
Tel. No.: +351 96237 7737
Fax No.: +351 218430 655
Email: george@dgsaude.min-saude.pt

Prof Antonio Guilherme Goncalves
Adjunto do Coordenador
do Centro Regional de Saude
Publica do Norte
Rua Latino Coelnho 260
4049-032 Porto
Portugal
Tel. No.: +351 22 510 5537x133
Fax No.: +351 22 5105591/1618
Email: guilherme.casa@mail.telepac.pt

Republic of Moldova

Dr Mihail Magdei
General Director
National Scientific
and Practical Centre
for Preventive Medicine
67 A, Gh. Asachi Str.
MD-2028 Chisinau
Republic of Moldova
Tel. No.: +373 2 72 96 47
Fax No.: +373 2 72 97 25
Email: mmagdei@mednet.md

Prof Nicolae I. Opopol
Scientific Director
National Centre of Preventive
Medicine
67A, G. Asachi Str.
Chisinau MD 2028
Republic of Moldova
Tel. No.: +373 273 58 22
Fax No.: +373 272 97 25
Email: nopopol@mednet.md

Romania

Dr Mariana Combiescu
Head, National Polio Laboratory
Cantacuzino Institute
PO Box I-525
Splaiul Independentei 103
70100 Bucharest
Romania
Tel. No.: +40 1 411 2159/3800
Fax No.: +40 1 411 5672
Email: polerad@cantacuzino.ro

Prof André Aubert Combiescu
Director
Cantacuzino Institute
Splaiul Independentei 103
P.O.B. 1-525 Ro 70.
100 Bucharest 35
Romania
Tel. No.: +40 1 411 21 59
Fax No.: +40 1 411 56 72
Email: aacombi@cantacuzino.ro

Dr Daniela Pitigoi
Counselor, EPI Manager
Ministry of Health and Family
General Department for Public
Health
Ministerului Street, nr. 1-3,
sector 1
70109 Bucharest
Romania
Tel. No.: +40 1 310 39 19
Fax No.: +40 1 313 66 60
Email: dpitigoi@ms.ro

Russian Federation

Dr Serguei I. Ivanov
Head of the Department
for State Sanepid Surveillance
Ministry of Health of the Russian
Federation
Vadkovsky per. 18/20
101479, Moscow
Russian Federation
Tel. No.: +7 095 973 26 66
Fax No.: +7 095 973 26 94
Email: ivanov@dmigug.ru

Dr Vladimir Petr. Sergiev
Director
E.I. Martsinovsky Institute
of Medical Parasitology
and Tropical Medicine
M. Pirogovskaya 20
GSP-3 Moscow
Russian Federation
Tel. No.: +7 095 246 8049
Fax No.: +7095 246 9047
Email: sergiev@stk.mmtel.ru

Dr Arkady Yassinsky
Deputy Director
Ministry of Health
Federal Centre for State
SanEpid Surveillance
Warshavskoje shosse 19a
113105 Moscow
Russian Federation
Tel. No.: +7 095 954 13 86
Fax No.: +7 095 954 03 10
Email: yasinsky@fcgsen.ru

San Marino

Not represented

Slovakia

Dr Eva Maderova
Director, Section of Epidemiology
National Public Health Institute
Trnavska 52
82645 Bratislava
Slovakia
Tel. No.: +421 444 55 177
Fax No.: +421 443 72 641
Email: maderova@szusr.sk

Dr Viktor Prikazsky
President, National Committee
for Certification
of Eradication of Poliomyelitis
Partizanska 3261/18
05801 Poprad
Slovakia
Tel/Fax +421 52 7721358
E-mail viktorprikazsky@alfanet.sk
E-mail viktor.prikazsky@utanet.at

Slovenia

Dr Alenka Kraigher
Head
Communicable Diseases Center
National Institute of Public Health
Trubarjeva 2
1000 Ljubljana
Slovenia
Tel. No.: +386 1 244 1410
Fax No.: +386 1 244 1471
Email: alenka.kraigher@ivz-rs.si

Dr Dunja Piskur Kosmac
Director
National Chemical Bureau
Ministry of Health
Breg 14
1000 Ljubljana
Slovenia
Tel. No.: +386 1 478 62 50
Fax No.: +386 1 478 62 66
Email: urad.kemikalije@gov.si

Spain

Dr Juan Fernando Martinez
Navarro
National Centre of Epidemiology
Epidemiologic Surveillance Area
Sinesio Delgado 6
E-28029 Madrid
Spain
Tel. No.: +34 91 387 7822
Fax No.: +34 91 387 7815/6
Email: fmartinz@isciii.es

Dr Begoña Merino Merino
Chief
Section of Vaccine-preventable
Diseases
National Centre of Epidemiology
Sinesio Delgado 6
Ministry of Health and Consumer
Affairs
Paseo del Prado 18-20
E-Madrid 28071
Spain
Tel. No.: +34 91 596 4276
Fax No.: +34 91 596 4195
Email: bmerino@msc.es

Dr Isabel Pachon
Adviser to Dr Martinez-Navarro
E-28029 Madrid
Spain
Tel. No.: +34 91 387 7802
Fax No.: +34 91 387 7815
Email: ipachon@isciii.es

Dr Pilar Perez Brena
Chief Virology Service
Centro Nacional de Microgiologia
Virologia e Immunologia
Sanitarias
Carretera de Majadohonda-
Pozuelo
Pozuelo, km2
E-28220 Majadahonda (Madrid)
Tel. No.: +34 91 50 97 971
Fax No.: +34 91 50 97 966
Email: pperez@isciii.es

Sweden

Dr Patrick Olin
EPI Programme Manager
Swedish Institute for Infectious
Disease Control
Department of Vaccine Research
Nobelvagen 18
SE-171 82 Solna
Sweden
Tel. No.: +46 8 457 2533
Fax No.: +46 8 30 39 60
Email: patrick.olin@smi.ki.se

Tajikistan

Dr Shamsidin Jabirov
General Director
Republican Centre for
Immunoprophilaxis
8, Chapaev str.
734025 Dushanbe
Tajikistan
Tel. No.: +992 372 27 62 94
Email: immun@rci.tajik.net

Prof Abdumadjid Pulatov
Chairman
National Certification Committee
on Poliomyelitis
Ministry of Health
Boukhoro str, apt 39
Dushanbe 734025
Tajikistan
Tel. No.: +992 372 21 48 71
Fax No.: +992 372 2148 71
Email: lotjk.who@tajnet.com

The Former Yugoslav Republic of Macedonia

Dr Borislav Josifovski
Head
Department for Preventive and Primary Health Care
Ministry of Health
50 Divizija b.b.,
1000 Skopje
The Former Yugoslav Rep. of Macedonia
Tel. No.: +389 2 220163/126206
Fax No.: +389 2 113014

Dr Nikola Sofijanov
Professor of Paediatrics
Chairman of the National Certification Committee
Lesnovska 23
Skopje 1000
The Former Yugoslav Rep. of Macedonia
Tel. No.: +389 2 176 669
Fax No.: 389 91 12 11 42

Turkey

Dr Yildirim Bayazit
Chief
EPI and Vaccine Preventable Disease Unit
General Directorate of Primary Health Care
Ministry of Health
06434 Sihhiye-Ankara
Turkey
Tel. No.: +90 312 435 3215
Fax No.: +90 312 432 2994
Email: ybayazit@saglik.gov.tr

Prof Ufuk Beyazova
Chairman
National Certification Committee
Gazi University Medical Faculty
Department of Pediatrics
Besevler
Ankara
Turkey
Tel. No.: +90 312 2141000
Fax No.: +90 312 2150143
Email: beyazova@tr.net

Dr Etem Ozkaya
Head
Tissue Culture & Enterovirus Lab and Viral Vaccine Control Unit
Central Institute of Hygiene
Laboratory of Virology
Cemal-Gursel Cad.No.16
Sihhiye-Ankara
Turkey
Tel. No.: +90 312 431 2882
Fax No.: +90 312 435 8470
Email: Poliolab@superonline.com

Turkmenistan

Dr Jumaguly Akmamedov
Head of Research
Anti-plague Station
Head of Certification Commission
Mahtumkuli pr 90
744000 Ashgabat GSP-19
Turkmenistan
Tel. No.: +993 12 34 28 23
Fax No.: +993 12 39 57 07
Email: ybm@online.tm

Dr Sofia Alieva
Head
Epidemiological Inspection
Ministry of Health
Epidemiological Control and Parasitology, State Sanitary
Mahtumkuli 90
744000 Ashgabat
Turkmenistan
Tel. No.: +993 12 35 33 77
Fax No.: +993 12 35 02 48
Email: ybm@online.tm

Ukraine

Dr Sergey Berezhnov
Head
Main Sanitary Epidemiological Department
Ministry of Health of Ukraine
7 Hrushevsky str.
01021 Kiev
Ukraine
Tel. No.: +380 44 253 94 17
Fax No.: +380 44 293 94 84

Dr Eleonora Armin. Laugen
Chief, Sector for Prevention of Dangerous and Infectious Diseases
Main Sanitary Epidemiological Department
Ministry of Health
7, Hrushevsky Str.
01021 Kiev
Ukraine
Fax +380 44 253 52 03
Office +380 44 253 17 84
Fax +380 44 293 6975

Prof V.P. Shirobokov
Head
Department of Microbiology, Immunology and Virology
Ukranian State Medical University
13 Shevchenko Boulevard
Kiev 01601
Ukraine
Tel. No.: +380 44 235 3854
Fax No.: +380 44 224 4062

United Kingdom

Prof Alex Campbell
Emeritus Professor of Child Health
Chairman, UK Certification and Containment Committies
34 Woodburn Crescent
Aberdeen AB15 8JX
United Kingdom
Email: ACamp55052@aol.com

Uzbekistan

Dr Dilbar I. Makhmudova
Director
Scientific Research Institute of Pediatrics
Ministry of Health
3,Talant torkochasi,
2 Chimboy str.
700179 Tashkent
Uzbekistan
Tel. No.: +998 712 29 3873
Fax No.: +998 712 29 38 74
Email: gaviuzb@sarkor.uz

Dr Galina G. Osipchuk
Head, Virology Laboratory
Ministry of Health of Uzbekistan
Navoi 12
700011 Tashkent
Uzbekistan
Tel. No.: +998 71 173 16 06
Fax No.: +998 712 766696
Email: polio@online.ru

Dr Dilorom Tursunova
Senior Specialist
Sanitary and Epidemiology Department
Ministry of Health
12, Navoi str.
Tashkent 700011
Uzbekistan
Tel. No.: +998 712 144 1603
Fax No.: +998 712 41 18 02
Email: MOH@online.ru

Yugoslavia

Dr Isme Humolli
EPI Manager
Institute of Public Health
Instituti Kombetar i Shendetesise Publik
rr, Nena Tereze
Pristina, Kosovo
Yugoslavia
Tel. No.: +377 44 155 279
Fax No.: +381 38 550 585
Email: ismeh@hotmail.com

Dr Sasa Jankovic
Torlak Insitute of Immunology and Virology
Yugoslav National Laboratory of Poliomyelitis, Enterovirus Laboratory
Vojvode Stepe 458
11221 Kumodraz, Belgrade
Yugoslavia
Tel. No.: +381 11 472911
Fax No.: +381 11 469654
Email: evlabtyu@EUnet.yu

Dr Mila Jankovic-Vucic
Senior Epidemiologist
Institute of Public Health of Serbia
National EPI Management
5 Dr Subotica Str.
YU-11000 Belgrade
Yugoslavia
Tel. No.: +381 11 684 566 x132
Fax No.: 381 11 685 735
Email: vakcine@batut.org.yu

Dr Goranka Loncarevic
AFP Coordinator
Institute of Public Health of Serbia
Dr Subotica 5
11000 Belgrade
Yugoslavia
Tel. No.: +381 11 684 140
Fax No.: 381 11 684 140
Email: atp@batut.org.yu

Dr Gordana Mijovic
Microbiologist, Chief
Virusology Department
Institute of Public Health
Llubljanska b.b.
81000 Podgorica, Montenegro
Yugoslavia
Tel. No.: +381 69 070 192
Fax No.: +381 81 224 267
Email: EPID.IPH.MN@cg.yu

TEMPORARY ADVISERS

Dr Rafi Aslanian
Polio Coordinator
2 Mariena rosha 12, flat 12
Moscow
Russian Federation
Tel. No.: +7 095 971 28 19
Email: raf@ztel.ru

Prof Michèle Aymard
Directeur
Laboratoire de Virologie du C.H.U. Lyon
Université Claude Bernard - Lyon 1
Centre Nationale de Référence des Enterovirus
8, avenue Rockefeller
F-69373 Lyon Cedex 08
France
Tel. No.: +33 478 77 70 29
Fax No.: +33 478 0148 87
Email: virochu@iniv-lyon1.fr

Dr Maina Bichourina
Chief, Polio Laboratory
Pasteur Institute
14 Mira Street
St Petersburg 197101
Russian Federation
Tel. No.: +7 812 233 2156
Fax No.: +7 812 232 9217
Email: Poliospb@nr3854.spb.edu

Prof Nikolaj A. Chaika
Chief, Department of Scientific Medical Information
St. Petersburg Pasteur Institute
Mira St. 14
197101 St. Petersburg
Russian Federation
Tel. No.: +7 812 2333420
Fax No.: +7 812 2329217
Email: nchaika@NC9955.spb.edu

Dr Radu Crainic
Chief of Laboratory
Molecular Epidemiology of Enteroviruses
Institut Pasteur
25 rue du Dr Roux
F-75724 Paris Cedex 15
France
Tel. No.: +33 1 4568 8763
Fax No.: +33 1 4568 8780
Email: craira@pasteur.fr

Dr Sabine Diedrich
Robert Koch Institute
National Reference Laboratory for Polio
Nordufer 20, Postfach 330013
D-13353 Berlin
Germany
Tel. No.: +49 30 4547 2378
Fax No.: +49 30 45472617
Email: diedrichs@rki.de

Prof Sieghart Dittmann
International Immunization Consulting
Hatzenporter Weg 19
D-12681 Berlin
Germany
Tel. No.: +49 30 54703539
Fax No.: +49 30 54703538
Email: sd.internat.immun.consult@t-online.de

Dr Lucia Fiore
Director of Enterovirus Unit
Laboratory of Virology
Public Health Institute
Viale Regina Elena 299
I-00161 Rome
Italy
Tel. No.: + 39 06 4990 3256
Fax No.: + 39 06 49902082
Email: fiore@iss.it

Dr Francois-Xavier Hanon
Pharmacist
Statens Serum Institut
Epidemiologisk Forskning
Artillerivej 5
2300 København S
Denmark
Tel. No.: +45 32683018
Fax No.: +45 32683165
Email: fxh@ssi.dk

Dr Ralph Henderson
198 McConnell Drive
30033-3402 Decatur, GA
United States of America
Fax No.: 1 404 329 9235

Dr Olga Eugenyevna Ivanova
Chief
Laboratory of Environmental Virology
Institute of Poliomyelitis and Viral Encephalitis,
Academy of Med. Sciences
Kievskoe Shosse 27
142782 Moscow
Russian Federation
Tel. No.: + 7 095 439 9054
Fax No.: + 7 095 439 9321
Email: poliom@aha.ru

Dr Javier Martin
Senior Scientist
NIBSC
RRL UK
Blanche Lane, South Mimms,
Potters Bar
Hertfordshire EN6 3QG
United Kingdom
Tel. No.: +44 1707 654 753
Fax No.: +44 1707 646730
Email: jmartin@nibsc.ac.uk

Dr Tove Rønne
Embedslægeinstitution for Copenhagen and Frederiksberg Kommunes
Henrik Pontoppidansvej 8
DK-2200 Copenhagen N
Denmark
Tel. No.: +45 72 22 74 85
Fax No.: +45 72 22 74 79
Email: tor@kof.eli.dk

Dr Peet Tüll
Medical Director
Division of Communicable Diseases Control
National Board of Health and Welfare
Rålambsvägen 3
SE-106 30 Stockholm
Sweden
Tel. No.: +46 8 55553423
Fax No.: +46 8 555 535 55
Email: peet.tull@sos.se

Dr Harrie G.A.M. van der Avoort
Senior Scientist, Poliomyelitis
Laboratory of Infectious Diseases and Perinatal Screening
National Institute of Public Health and Environmental Protection (RIVM)
Antonie van Leeuwenhoeklaan 9-PO Box 1
NL-3720 BA Bilthoven
Netherlands
Tel. No.: +31 30 274 2059
Fax No.: +31 30 274 4418
Email: harrie.van.der.avoort@rivm.nl

Observers

Dr Peter Andersen
Statens Seruminstitut
Entervirus Surveillance Project
Artillerivej 5
2300 Copenhagen S
Denmark
Tel. No.: + 45 32 68 32 65
Fax No.: +45 32 68 38 74
Email: pea@ssi.dk

Dr Blenda Böttiger
State Serum Institute
Department of Virology
Artillerivej 5
DK-2300 Copenhagen S
Denmark
Tel. No.: +45 32 68 34 49
Fax No.: +45 32 68 31 48
Email: bbo@ssi.dk

REPRESENTATIVES OF OTHER ORGANIZATIONS

AFRO Certification Commission

Prof Ntutu Andrew Mafojane
Kalafong Hospital
Department of Neurology
Klinikala Building
P. Bag X396
Pretoria 001
South Africa
Tel. No.: +27 12 373 8041/9022
Fax No.: +27 12 373 9031
Email: nmafojan@kalafong.up.ac.za

CDC Atlanta

Dr Stephen L. Cochi
Director
Vaccine Preventable Disease Erad. Div.
National Immunization Program
Centers for Disease Control and Prevention
1600 Clifton Rd., NE
Atlanta, GA 30333
United States of America
Tel. No.: +1404 639 8682
Fax No.: +1 404 638 5408
Email: scochi@cdc.gov

Dr David Fleming
Acting Director
Centers for Disease Control and Prevention
1600 Clifton Road
Atlanta
United States of America
Tel. No.: +1 404 639 7000
Fax No.: +1 404 639 7111
Email: DWF1@cdc.gov

Ms Julie Jenks
Epidemiologist
National Immunization Programme
Centers for Disease Control and Prevention
Corp. Rd. 12, Mailstop E05
Atlanta
United States of America
Tel. No.: +1 404 639 8167
Fax No.: +1 404 639 8573
Email: jkj2@cdc.gov

Dr Patrick Zuber
National Immunization Program
Global Immunization
Center for Desease Control and Prevention (CDC)
Corporate Square Bldg. 12, Mailstop E05
Atlanta, GA 30333
United States of America
Tel. No.: +1 404 639 8120
Fax No.: +1 404 639 8573
Email: puz0@cdc.gov

EMRO Certification Commission

Dr Abdullahi Deria
28 Claudia Place, Augustus Road
London SW19 6ES
United Kingdom
Email: a_deria@hotmail.com

Global Certification Commission

Dr Anthony I. Adams
Professor of Public Health
Australian National Univesity
National Centre for Epidemiology and Population Health
Canberra ACT 0200
Australia
Tel. No.: +61 2 61 25 56 16
Fax No.: +61 2 61 25 07 40
Email: tony.adams@anu.edu.au

Dr Rose Leke
Faculty of Medicine
University of Yaoundé
Department of Immunology and Microbiology
Yaoundé
Cameroon
Tel. No.: +237 223 74 29
Fax No.: +237 223 44 51/74 29
Email: rose.leke@camnet.cm

Rotary

Mr Rudolf Horndler
Chairman, European Regional PolioPlus Committee
Rotary International
Asamstrasse 3
D-92318 Neumarkt
Germany
Tel. No.: +49 9181 290620
Fax No.: +49 9181 290621
Email: hoerndler@aol.com

UNICEF

Mr Alan Court
Director
UNICEF Supply Division
Unicef Plads, Freeport
21 Copenhagen
Denmark
Tel. No.: +45 35273527
Fax No.: +45 35269421
Email: ACourt@unicef.org

Ms Shanelle Hall
Team Leader, Immunization
Unicef Supply Division
UNICEF Plads, Freeport
2100 Copenhagen
Denmark
Tel. No.: +45 35 27 30 84
Fax No.: +45 35 26 94 21
Email: sehall@unicef.org

Mr Philip O' Brien
Regional Director
UNICEF Regional Office for CEE, CIS and Baltics
Palais des Nations
5-7 avenue de la Paix
CH-1211 Geneva 10
Switzerland
Tel. No.: +41 22 909 56 05
Fax No.: +41 22 909 59 9
Email: pobrien@unicef.org

Dr Dragoslav Popovic
UNICEF Regional Officer for CEE/CIS
UNICEF
Palais des Nations
5-7 avenue de la Paix
CH-1211 Geneva 10
Switzerland
Tel. No.: +41 22 909 5626
Fax No.: +41 22 909 5909
Email: dpopovic@unicef.org

USAID

Ms Ellyn Ogden
USAID Worldwide P.E. Coordinator
Office of Health and Nutrition
Ronald Reagan Building
Rm3.07-062
United States Agency for International Development
1300 Pennsylvania Avenue
Washington, DC 20523-3700
United States of America
Tel. No.: +1 2027125891
Fax No.: +1 2022163702
Email: eogden@usaid.gov

WORLD HEALTH ORGANIZATION

Regional Office for Europe

Dr Jo Erik Asvall
Regional Director Emeritus of the World Health Organization
Falkoner Allé 80, 2nd floor
2000 Frederiksberg
Denmark
Tel. No.: +45 35 35 62 40
Email: jas@rct.dk

Prof Anatoly David Altsteyn
Consultant, Containment of wild polioviruses
Institute of Gene Biology
Vavilov str 34/5
Moscow 117334
Russian Federation
Tel. No.: +7 095 135 1029
Fax No.: +7 095 135 4105
Email: ada@mx.ibg.relarn.ru

Dr Roberto Bertollini
Director, Division of Technical Support
Tel. No.: +45 39 171516
Fax No.: + 45 39 17 18 18
Email: BER@who.dk

Dr Marc Danzon
Regional Director
Regional Office for Europe
World Health Organization
Scherfigsvej 8
DK-2100 Copenhagen Ø
Denmark
Tel. No.: +45 39 17 17 17
Fax No.: +45 39 17 18 18
Email: mda@who.dk

Dr Sergei Deshevoi
Med. Off., Immunization Projects/ CARAK
WHO Communicable Diseases Project Office
c/o WHO Liaison Office
M. Makataev St. 13
480002 Almaty
Kazakhstan
Fax/Phone +7 3272 301451
E-mail sed2@online.ru

Dr Nedret Emiroglu
Regional Adviser, Communicable Diseases
Tel. No.: +45 39 17 14 50
Fax No.: + 45 39 17 18 63
Email: nem@who.dk

Dr Eugene Gavrilin
Short-term Professional
Tel. No.: +45 39 17 15 74
Fax No.: + 45 39 17 18 63
Email: ega@who.dk

Dr Dalya Herrera Guris
Medical Officer
WHO Polio Project Office, Turkey
General Directorate of Primary Health
Saglik Bakanligi,Temel Saglik Hizmetleri
Genel Mùdürlùgù, B-Blok, 4. Kat. No. 18
Sihhiye, Ankara
Turkey
Fax +90 312 4414759
Office +90 312 428 4031
Mobile +90 533 464 9951
E-mail whotur@dominet.in.com.tr

Ms Johanna Kehler
Programme Assistant
Tel. No.: +45 39 12 44
Fax No.: + 45 39 17 18 63
Email: jke@who.dk

Dr Helena Kopecka
Short-term Professional, Containment
Dr Helena Kopecka
3, Rue du Harpon
F-92290 Chatenay Malabru
France
Fax/Phone +33 1 46 60 41 27
E-mail hkopecka@pasteur.fr

Dr Galina Lipskaya
Scientist, Coordinator of the EUR Polio
Tel. No.: +45 39 17 14 69
Fax No.: + 45 39 17 18 63
Email: gli@who.dk

Dr Serguei Litvinov
Consultant,Technical Support
Tel. No.: +45 39 17 12 28
Fax No.: +45 39 17 18 18
Email: skl@who.dk

Ms Doreen Mackay
Secretary
Tel. No.: +45 39 17 12 16
Fax No.: + 45 39 17 18 63
Email: dma@who.dk

Ms Tanya Michaelsen
Programme Assistant
Tel. No.: +45 39 17 14 97
Fax No.: + 45 39 17 18 63
Email: tmi@who.dk

Dr George Oblapenko
Medical Officer
Tel. No.: +45 39 17 12 94
Fax No.: + 45 39 17 18 63
Email: postmaster@who.dk

Dr Raymond Sanders
Consultant, Containment
Communicable Diseases Laboratory System
72 Henwick Road
St John's
Worcester WR2 5NT
United Kingdom
Tel. No.: +44 1905 42 67 32
Fax No.: +44 1905 42 71 32
Email: RaySanders@geek.com

Ms Sharon Steele
Secretary
Tel. No.: +45 39 17 15 87
Fax No.: + 45 39 17 18 63
Email: shs@who.dk

Dr Steven Wassilak
Medical Officer, Poliomyelitis
Tel. No.: +45 39 17 12 58
Fax No.: + 45 39 17 18 63
Email: swa@who.dk

Headquarters

Dr Esther de Gourville
Laboratory Coordinator
Tel. No.: +41 22 79 12654
Email: degourvillee@who.int

Dr Roland Sutter
Polio Eradication Initiative
Tel. No.: +41 22 79 14682
Email: sutterr@who.int

Dr Daniel Tarantola
Director
Division of Vaccines & Biologicals
World Health Organization
20 Avenue Appia
CH-1211 Geneva 27
Switzerland
Office +41 22 791 29 81
E-mail tarantolad@ccm.who.ch

Other Regional Offices

Dr Jeffrey McFarland
Medical Officer
Expanded Programme on Immunization
World Health Organization
Western Pacific Regional Office
PO Box 2392
1000 Manila
Philippines
Office +63 2 528 8001
Fax +63 2 521 1036
Direct Dial +63 2 528 9746
E-mail mcfarlandj@wpro.who.int

Interpreters

Mr Vladimir M. Ilyukhin
Simultaneous Interpreter
Tel. No.: +7 095 180 4276/ 912 3801
Email: larisab@orc.ru
Mr. Georgy G. Pignastyy
Conference Interpreter/Translator
Tel. No.: +7 (095) 935-33-04
Email: antonag@orc.ru

The lapel pin, above, was made to commemorate Polio-Free Europe (WHO, 2002).

The cover shows the stele of Roma the Doorkeeper, Egypt, 18th Dynasty, reign of Amenophis III, circa 1403-1365 BCE. The right leg and foot of the Doorkeeper Roma is generally believed to be a depiction of poliomyelitis (photograph courtesy of Ny Carlsberg Glyptotek, Copenhagen, Denmark).

World Health Organization
Regional Office for Europe

Scherfigsvej 8, DK-2100 Copenhagen Ø, Denmark
Tel.: +45 39 17 17 17. Fax: +45 39 17 18 18.
E-mail: postmaster@euro.who.int
Web site: www.euro.who.int

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

Member States

Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Netherlands
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia and Montenegro
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
The former Yugoslav Republic of Macedonia
Turkey
Turkmenistan
Ukraine
United Kingdom
Uzbekistan