FOURTH MEETING OF THE EUROPEAN ADVISORY GROUP ON THE EXPANDED PROGRAMME ON IMMUNIZATION

A report from the programme on Communicable Diseases

WORLD HEALTH ORGANIZATION
Regional Office for Europe
COPENHAGEN

TARGET 5

Eliminating seven specific diseases

By the year 2000, there should be no indigenous measles, poliomyelitis, neonatal tetanus, congenital rubella, diphtheria, congenital syphilis or indigenous malaria in the Region.

Index:

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COMMUNICABLE DISEASE CONTROL - methods
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FOURTH MEETING OF THE EUROPEAN ADVISORY GROUP ON THE EXPANDED PROGRAMME ON IMMUNIZATION

Report on a WHO meeting

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Note

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CONTENTS

Introduction

The fourth meeting of the European Advisory Group (EAG) on the Expanded Programme on Immunization (EPI) was convened to review immunization policies in the Region and to consider:

- the Plan of Action for the Eradication of Poliomyelitis adopted at the thirty-ninth session of the WHO Regional Committee for Europe;

- the introduction of MMR (measles, mumps, rubella) vaccine in the national programmes of Member States;

- the policy for eradicating CRS (congenital rubella syndrome);

- the prospects for the prevention of pertussis, meningococcal meningitis, Haemophilus influenzae B infection, influenza, and so on;

- a draft agenda for the Third European Meeting of National Programme Managers on EPI, to be held in St Vincent, Aosta (Italy) from 22 to 25 May 1990.

The meeting was chaired by Dr J. Hallauer; Dr Colette Roure served as Vice-Chairperson, Dr I. Masar and Dr D. Salisbury acted as Co-Rapporteurs and Dr B. Bytchenko was Secretary.

Poliomyelitis

The EAG noted that the Regional Committee had accepted the Plan of Action for the Eradication of Poliomyelitis from the European Region.

Early indications for 1989 suggest that the reported number of confirmed polio cases in Europe is likely to fall by about 50% as compared to the 1988 figure. Two countries have been responsible for this notable improvement, Turkey and the USSR. (The situation in Turkey was not reported in detail at this meeting.)

In the USSR a plan of action for polio eradication was approved and implemented in 1989. The WHO model for categorization has been adopted in each republic and strategies have been implemented according to the categories. In the past there was concern that the figures notified were less than accurate, but this has now been rectified. The greatest improvements are being reported from the republic with the greatest operational difficulties, Turkmenistan. However, there are still considerable problems in Azerbaizhan.

Surveillance and the cold chain are also being strengthened. Continued efforts will be necessary to achieve the planned regional eradication by 1995, which the USSR has endorsed.

In Romania, where polio vaccination is given in twice-yearly campaigns, no cases of wild poliovirus have been detected since 1982. Two million doses of oral polio vaccine (OPV) are used each year. In 1989 there were nine cases of vaccine-associated poliomyelitis, in five of which type-3 vaccine poliovirus was isolated. This number of cases is clearly in excess of the expected number from this quantity of OPV, and confirms data collected in this country since 1970.

The Group suggested replacing the Romanian vaccine with another from a different manufacturer. At WHO's request, Romanian seed, bulk and clinical isolates have all been made available to the WHO collaborating centre for poliomyelitis - the Pasteur Institute in Paris - to try to find an answer to this problem. The EAG commended the collaborative efforts now being undertaken in Romania.

The epidemiology of the outbreak in Israel in 1987/1988 was described. There was considerable discussion of the mechanism of this outbreak in a country with a highly vaccinated population where both OPV and IPV (inactivated polio vaccine) were being used. It was reported that there had been an increase in the number of wild poliovirus strains not neutralized by monoclonal anti-Mahoney antibodies in the years preceding the outbreak. The possibility that the vaccine strains were not fully protective caused the EAG much concern. Furthermore, vaccine failures may have been a contributory factor. Information was also presented on polio cases observed in the past in OPV-vaccinated individuals. This information concurs with observations made in the present outbreak.

Despite the large population movement between Bulgaria and Turkey, the widespread use of OPV in the former country was considered to protect the population. Nevertheless, one case of wild polio occurred in a child from a gypsy family, as previously seen in such children in France and in Spain, due to the low acceptance of vaccination by this group.

The authorities were urged to try harder to vaccinate highly mobile groups and to increase their coverage and surveillance of the whole population.

A very encouraging report was received of the progress being made in the Americas Region. Since August 1989 no wild poliomyelitis virus has been isolated there, although more than 400 cases of flaccid paralysis have been reported and investigated for poliomyelitis.

There was concern that very few countries in the Americas have a formal reporting system for all cases of flaccid paralysis. It was agreed that every such case should be fully investigated, because the monitoring of flaccid paralysis is a sensitive marker of the quality of surveillance.

A questionnaire was presented for assessing and classifying polio cases, with special regard to vaccine-associated poliomyelitis. The Group decided that the questionnaire should be sent immediately to all EPI Programme Managers so that their replies could be discussed at the meeting in Aosta.

It was questioned whether the certification of eradication had any purpose and value unless a clear benefit from the exercise could be shown. The Global Plan already contains a scheme for categorizing countries according to the prevalence of poliomyelitis (group A, B, and C countries).

A specially set up working group made the following recommendations on this subject.

Criteria for declaring indigenous poliomyelitis eradicated from countries of the European Region

1. To prove that a country is free from indigenous poliomyelitis it must be shown that no confirmed poliomyelitis cases other than imported or vaccine-associated cases have been detected within the last three years.

2. It must also be shown that:

- a well conceived plan of action for poliomyelitis eradication has been implemented, with reliable surveillance;

- all cases which fulfil the WHO definition for suspected poliomyelitis (any case of acute flaccid paralysis, including GBS (Guillain-Barré syndrome), in children under 15, for which no other cause can be immediately identified) have been and continue to be fully investigated (clinically, epidemiologically and virologically);

- an efficient laboratory-supported surveillance system exists, ensuring that each case of confirmed poliomyelitis is assessed and classified by experts as being imported or vaccine-associated, generally on the basis of intratypic differentiation of the causative polioviruses;

- all poliomyelitis vaccines used in the programme meet WHO requirements;

- a minimum immunization coverage rate of 90% (completed polio immunization courses) has been achieved in all target groups and in all districts, using potent and properly stored vaccines;

- maintenance of adequate immunity levels has been monitored in all population groups, until countrywide eradication is achieved.

The EAG suggested that these proposed criteria for declaring indigenous poliomyelitis eradicated should be submitted to EPI for further consideration, and that EPI in turn should develop universally acceptable criteria for the confirmation of global polio eradication.

Meanwhile, the Group would continue to monitor vaccine-associated cases and compare the advantages and disadvantages of both oral and intramuscular polio vaccine.

There should be further study of a laboratory-supported surveillance programme for isolating, typing and characterizing viruses circulating in the population and the environment.

The EAG felt that the WHO Field Guide on Poliomyelitis, adapted for local use, should be available everywhere in all countries.

It noted with concern that in some countries outside the European Region, despite vaccine coverage of over 90%, poliovirus transmission was continuing. This occurrence will need further investigation.

Measles, mumps, rubella (MMR)

MMR vaccine has already been introduced into the national programmes of at least 18 European Member States. The vaccine is becoming more widely available and pressure is mounting on the remaining countries to consider introducing it.

However, the use of MMR vaccine implies a firm policy commitment to control rubella. Every effort should be made to ensure that all girls entering childbearing age are immune to rubella. Information should be available on susceptibility to rubella in pregnancy, rubella infections in pregnancy and cases of CRS. Unless a high uptake of vaccine is achieved in infants, and rubella transmission interrupted, the age-specific infection rate will rise, with the risk of rubella epidemics in young adults, some of whom will be both susceptible and pregnant.

It can also be anticipated that measles and mumps outbreaks will occur increasingly in older individuals, for whom the consequences may be more severe than in children. Endorsing the Programme Managers' recommendations of 1989, the EAG encouraged countries to consider using the two-dose strategies to protect non-immune children and young adults from the two diseases.

There are still very few countries in the Region which have installed a proper surveillance system for congenital rubella syndrome. Countries were urged to set up such systems, using the accepted case definitions for CRS.

The Group considered a report on the availability of MMR vaccine in the Region, and discussed current information on meningoencephalitis cases related to the mumps component of the vaccine. Techniques for the virus-sequencing of isolates from clinical meningoencephalitis cases may make it possible to distinguish vaccine strains from wild strains, and the methodologies for this are being developed. Despite the causes for anxiety, the EAG was unanimous that the benefits gained from preventing mumps outweighed the risks associated with the vaccine.

The EAG felt that cost-benefit analysis might prove helpful in influencing governments to provide adequate funding for the introduction and promotion of MMR and other vaccines.

Diphtheria, pertussis, tetanus

The Group felt that there should be a special meeting to advise on the vulnerability to diphtheria of particular adult age groups and ways of dealing with it.

The development of new pertussis vaccines was discussed and there was concern that the efficacy of any new vaccine should be at least as great as that of the existing whole-cell product. Well conducted phase-3 trials will be crucial. Until an acellular vaccine becomes available, the widespread use of a vaccine containing the whole-cell pertussis components should be continued.

Four countries (Portugal, Spain, Turkey and Yugoslavia) were still reporting neonatal tetanus until recently. Europe was urged to be the first Region to eradicate this disease entirely.

Haemophilus influenzae B vaccine (HIB)

The successful introduction of HIB vaccine in Finland was welcomed by the Group.

Other countries were advised to consider introducing it, after first assessing the epidemiology of Haemophilus and the immunogenicity of the vaccine. HIB vaccine can be successfully integrated into expanded programmes of immunization.

Primary health care

In many countries some immunization services are provided by primary health care workers, for which reason there should be effective collaboration between EPI and primary health care. The Primary Health Care unit at the Regional Office should try to involve national EPI managers when organizing meetings in countries.

The EAG noted the part played by primary health care physicians in HIB surveillance and case-reporting.

General

The Group endorsed a recommendation that the eradication of congenital syphilis and indigenous malaria should be transferred from target 5 to target 4 of the European health for all strategy. WHO might consider recommending that pertussis, mumps, rubella, tetanus and hepatitis B vaccination should be incorporated into the regional EPI objectives.

Influenza

Information was presented on influenza surveillance and vaccination strategies. Influenza epidemics undoubtedly cause excess winter mortality and suitable intervention methods should be explored.

Research

The Group was informed of progress made following meetings in 1989 of representatives of the EEC countries. The application for research funds had been successful. The Group noted the main areas of research proposed, which are:

- quality assurance of coverage assessment;
- outbreak investigation of the epidemiology of vaccine-preventable diseases which are close to being eradicated;
- monitoring of adverse events associated with immunization;
- quality assurance of vaccine distribution systems (cold chain).

The EAG recognized the need for operational research to strengthen the programme and congratulated the proposer on her initiative.

Programme Managers' Meeting in Aosta, 1990

Topics were proposed for discussion at the forthcoming Programme Managers' meeting, including:

- progress reports from group A, B and C countries;
- monitoring of coverage;
- use of poliomyelitis vaccine coverage as a performance indicator;
- review of rubella in the European Region;
- country reports on MMR (Scandinavian countries, Switzerland);
- preconditions for the eradication of CRS;
- mumps, meningoencephalitis and vaccine-associated cases.

Recommendations

Poliomyelitis

1. To avoid vaccine-associated or contact vaccine-associated cases of poliomyelitis occurring, the Romanian polio vaccine should be replaced with a vaccine from a different manufacturer, supplied by UNICEF and certified by the national control authority of the producing country to meet WHO requirements.

2. The health authorities in Bulgaria and Turkey should increase their efforts to vaccinate highly mobile groups.

3. They should also do their best to improve their coverage and surveillance of the whole population.

4. The questionnaire for assessing and classifying polio cases should be sent to all EPI Programme Managers as soon as possible and their replies should be presented at the Aosta meeting in May.

5. The EAG should continue to monitor vaccine-associated polio cases, and to study the advantages and disadvantages of OPV and IPV respectively.

6. There should be further investigation of a laboratory-supported surveillance programme aimed at isolating, typing and characterizing polioviruses circulating in both the population and the environment.

Measles, mumps, rubella

7. The EAG endorses the recommendations concerning CRS made by the EPI Programme Managers at their 1989 meeting. It advises countries to consider using a suitable two-dose strategy to protect non-immune children from measles and mumps.

Diphtheria, pertussis, tetanus

8. The Regional Office should convene an expert group to advise on vulnerability to diphtheria in specific adult age groups, and to develop strategies for tackling this problem.

9. The WHO European Region should make every effort to be the first to achieve total eradication of neonatal tetanus.

Haemophilus influenzae B vaccine (HIB)

10. Countries should consider introducing HIB vaccine, after first assessing the epidemiology of Haemophilus and the vaccine's immunogenicity. HIB vaccine can be successfully integrated in expanded immunization programmes.

Primary health care

11. When the Regional Office's Primary Health Care unit convenes national meetings, it should also try to involve national EPI managers.

Annex 1

WORKING PAPERS AND BACKGROUND MATERIAL[a]

Working papers

ICP/EPI 022/1	List of working papers and background material
ICP/EPI 022/2	Scope and purpose
ICP/EPI 022/3	Provisional agenda
ICP/EPI 022/4	Provisional programme
ICP/EPI 022/5	Provisional list of participants
ICP/EPI 022/6	Adult immunization: an overview, by H. Zoffmann
ICP/EPI 022/7	Global overview. Poliomyelitis Eradication initiative, by N. Ward
ICP/EPI 022/8	MMR vaccine: quality, sources, availability, by J.B. Milstien
ICP/EPI 022/9	Examples of recent outbreaks of measles in Hungary and Czechoslovakia, by I. Masar
ICP/EPI 022/10	Poliomyelitis in Israel in the 80s with special reference to the 1988 outbreak, by T.A. Swartz
ICP/EPI 022/11	MMR vaccine, by D. Salisbury
ICP/EPI 022/12	Immunization against diphtheria, tetanus and pertussis in Europe, by A. Galazka.

[a] Copies are available from the Communicable Diseases unit, WHO Regional Office for Europe, 8 Scherfigsvej, DK-2100 Copenhagen O.

ICP/EPI 022/13	Immunization against Haemophilus influenzae type B HIB and Neisseria meningitidis A and C (MenAC) infections. State of art, by J. Eskola
ICP/EPI 022/14	Target 5 HFA-2000 - problem areas, by B. Bytchenko
ICP/EPI 022/15	Surveillance of vaccine-associated poliomyelitis in the framework of WHO's global poliomyelitis eradication programme, by S. Dittmann
ICP/EPI 022/16	Monitoring of side-effects and adverse events following immunization, by S. Dittmann
ICP/EPI 022/17	Prospective cost-effectiveness analysis: application to vaccinations, by C. Roure
ICP/EPI 022/18	Research in methodologies of immunization programmes management in Europe, by N. Guérin
ICP/EPI 022/19	Situation of poliomyelitis in Romania, 1989, by A. Combiescu
ICP/EPI 022/20	The epidemiological situation of mumps and rubella in Europe, by S. Popova
ICP/EPI 022/21	Primary health care systems as vehicles for the Expanded Programme on Immunization, by W. Hubrich
ICP/EPI 022/22	Tools to monitor the progress of disease elimination programmes in Europe - Evaluation of coverage and disease incidence, by S. Dittmann
ICP/EPI 022/23	Surveillance. Necessity for sentinel systems. Approach to CRS surveillance, by D. Greco
ICP/EPI 022/24	Perspectives for prevention of influenza, by C. Hannoun

Background material

ICP/EPI 001 m01(S)	Immunization policies in Europe (summary report), Karlovy Vary, 10-12 December 1984
ICP/EPI 012	European Advisory Group on the Expanded Programme on Immunization, Report of the first meeting, Copenhagen, 10-12 September 1986
EUR/ICP/EPI 017	European Advisory Group on the Expanded Programme on Immunization, Report of the second meeting, Rome, 9-11 December 1987
EUR/ICP/EPI 018	Meeting of national Programme Managers, Report of the first meeting, Budapest, 26-28 April 1988
EUR/ICP/EPI 020	European Advisory Group on the Expanded Programme on Immunization, Report of the third meeting, Rome, 24-27 January 1989
EUR/ICP/EPI 021	Meeting of National Programme Managers on EPI, Report of the second meeting, Istanbul, 23-26 May 1989
EUR/RC39/9 + /Conf.Doc./7 Rev.1	Eradication of poliomyelitis
EUR/RC39/R5	Eradication of poliomyelitis
	Complications encéphalitiques de la rougeole en France, Rapport 1988 (in French)

Annex 2

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