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ORGANISATION MONDIALE DE LA SANTE
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منظمة الصحة العالمية
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REGIONAL COMMITTEE FOR
THE EASTERN MEDITERRANEAN

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Agenda item 14

POLIOMYELITIS ERADICATION IN THE EASTERN MEDITERRANEAN REGION

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1. INTRODUCTION

World Health Assembly resolution WHA41.28* was adopted unanimously as a vote of confidence that the achieved coverage rates with poliomyelitis vaccines will continue to rise and be sustained, in pursuit of WHA resolution WHA30.53 of 1977 which targets for the provision of vaccination of all children of the world by 1990. It emphasizes that eradication of poliomyelitis should be pursued in ways that strengthen the development of the Expanded Programme on Immunization (EPI) as a whole and, in turn, the development of health infrastructures and primary health care (PHC).

2. SITUATION OF POLIOMYELITIS AND POLIO IMMUNIZATION IN THE REGION

The distribution of cases of poliomyelitis in the Eastern Mediterranean Region (EMR) shows that it is an endemic disease mostly affecting young children.

The number of cases now reported annually is in the range of four to six thousand. There are, however, several indications that these numbers are very considerably underestimated. National lameness surveys carried out during the last few years show that in many countries of the Region the percentage of children with some degree of lameness most probably due to poliomyelitis exceeds one per thousand. When these data are translated into terms of annual incidence, the probable number of cases of poliomyelitis occurring among children of these countries is nearly ten times greater than the reported figures.

It will be noted from Table 1 that six countries have reported zero cases for some years, some have very few cases but most countries are still reporting many cases every year.

Vaccination against poliomyelitis was introduced in many Member States of the EMR in the early 1960s but on a very small and limited scale. Coverage with poliomyelitis vaccines remained very modest in most countries of the Region until the late 1970s, when the Expanded Programme on Immunization was established. The Regional coverage rate for poliomyelitis vaccines was 10% in 1979. It has increased during the last ten years and at present nearly 70% of the children of the Region receive three doses of polio vaccine before they reach the age of one year. As a matter of fact, over 80% of the infants of this Region receive at least one dose of the polio vaccine during their first year of life.

The vaccination coverage rates for the third dose of OPV for individual countries of the Region ranges between almost full coverage to very low coverage rates (less than 20%). There are five countries with exceptionally low rates (less than 30%), namely Republic of Afghanistan, Democratic Yemen, Somalia, Sudan and Yemen. Apart from these countries all Member States are reporting polio immunization rates of 60% or more.

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* See Annex I.

TABLE 1. REPORTED POLIOMYELITIS INCIDENCE AND IMMUNIZATION COVERAGE
(3 doses, <1 year)
Eastern Mediterranean Region - 1 July 1988

Group A: - Zero indigenous cases due to wild virus last three years and
- immunization coverage >80%

Country/area	Zero cases since	% immunization coverage
UNRWA	1985	100
Bahrain	1981	89
Cyprus	<1975	93

Group B: - Less than 10 cases per year for last three years and
- immunization coverage >70%

Country	Reported incidence			% immunization coverage
	1985	1986	1987	
Jordan	1	2	0	89
Kuwait	2	0	0	94
Lebanon	3	2	0	91
Qatar	1	0	0	80
United Arab Emirates	7	6	5	75

Group C: - More than 10 cases per year and
- immunization coverage >60%

Country	Reported incidence			% immunization coverage
	1985	1986	1987	
Djibouti	--	--	--	60
Egypt	416	339	492	81
Iran, Islamic Republic of	53	70	31	74
Iraq	198	80	45	76
Libyan Arab Jamahiriya	0	2	28	62
Morocco	15	12	9	78
Oman	33	24	6	77
Pakistan	747	2660	2203	62
Saudi Arabia	28	12	4	89
Syrian Arab Republic	28	38	41	86
Tunisia	19	11	23	89

Group D: - More than 10 cases per year or
- immunization coverage <30%

Country	Reported incidence			% immunization coverage
	1985	1986	1987	
Afghanistan, Republic of	1981	1843	628	25
Democratic Yemen	26	11	26	25
Somalia	6	1	10	25
Sudan	84	86	--	29
Yemen	310	579	--	14

Considering the number of cases of poliomyelitis and polio immunization coverage together, countries of the EMR can be classified into four groups, as follows:

- Group (A). Zero indigenous cases due to the wild polio virus for the last three years and immunization coverage of >80%. These include Bahrain, Cyprus and the Palestinian population.

- Group (B). Countries reporting less than 10 cases per year for the last three years and immunization coverage of >70%. These include: Jordan, Kuwait, Lebanon, Qatar and United Arab Emirates.

- Group (C). Countries reporting more than 10 cases per year and immunization coverage of more than 60%. These include: Egypt, Islamic Republic of Iran, Iraq, Libyan Arab Jamahiriya, Morocco, Oman, Pakistan, Saudi Arabia, Syrian Arab Republic and Tunisia.

- Group (D). Countries reporting 10 or more cases per year and immunization coverage of less than 30%. These comprise: Republic of Afghanistan, Democratic Yemen, Somalia, Sudan and Yemen.

3. STRATEGIES FOR POLIO ERADICATION

The first priority in polio eradication will be to continue to raise and sustain immunization coverage levels. All countries should attain and maintain immunization levels over 80% with a protective course of polio vaccine. In order to interrupt transmission, these levels of immunization coverage should be attained in each district or equivalent geopolitical unit in the country.

The second priority in polio eradication is to improve surveillance of poliomyelitis. The quality of routine monitoring and surveillance activities needs marked improvement. Reports of cases should be made by geopolitical sub-division. National averages should be avoided.

The third strategy is the rapid and comprehensive response to all cases. In view of the fact that the case:infection ratio is at least 1:100 the appearance of one case of paralytic polio is equivalent to an epidemic of infection. Therefore, every case should be thoroughly investigated and control measures covering the area around it should be instituted.

4. REGIONAL PLAN OF ACTION FOR POLIOMYELITIS ERADICATION

The target of poliomyelitis eradication was conceived to be attainable in the Region as a result of the success in achieving good coverage rates with poliomyelitis vaccination. The implementation of polio eradication activities should, therefore, in no way be an impediment to or made at the expense of any of the elements of EPI or PHC. This initiative is felt to be an added strength to EPI and will also assist in the acceleration of other components of PHC.

In the light of the Regional situation of poliomyelitis, polio immunization and in response to the WHA resolution declaring the commitment of WHO to the goal of the global eradication of poliomyelitis by the year 2000, the Regional Director of the Eastern Mediterranean Region established a Technical Advisory Group on Poliomyelitis Eradication to:

1. review the Regional action plan for polio eradication and recommend necessary amendments;

2. advise on requirements for implementing the Regional plan, including necessary financial support and possible sources of funds;

3. review achievements in polio eradication within the context of EPI in general, study identified constraints facing it and advise on possible corrective actions;

4. review reports of EPI evaluation missions and those related to verification/certification of polio eradication from Member States of the Eastern Mediterranean Region (EMR) and make recommendations as to their endorsement; and

5. review technical documentation prepared for use in the Region and advise on suitability before wide distribution and use.

The Group held its first meeting in Geneva on 18 and 19 July 1988, attended by all its members, a representative of the UNICEF Regional Office for the Middle East and North Africa and WHO Secretariat from both EMRO and Headquarters. The Advisory Committee studied the draft Regional Plan for Poliomyelitis Eradication and endorsed the Plan as described below.

The Regional Plan being part of the Global Plan, some of the activities, particularly those of a global nature, such as the improvement of the quality of polio vaccines, development of new vaccines, improvement in methods of laboratory surveillance of poliomyelitis and preparation of training manuals, will be developed by the Global Programme for the benefit of Regional programmes.

The main elements of the proposed Regional Plan are given below. Some are essentially a national responsibility, others essentially a WHO responsibility and some are of shared responsibility between national authorities, WHO and other parties.

1. Obtaining the necessary political commitment to this goal within the Region. Although some Member States of EMR are among the signatories of the Polio Eradication Declaration made at the time of the WHA in May 1988, it is essential that the Regional Committee for the EMR adopt a resolution in this regard.

Political commitment should be accompanied by financial and social support and by community mobilization and involvement to ensure public demand and hence continued government commitments and inputs.

2. Preparation of national polio eradication plans by all countries of the Region.

2.1. Although all national plans are expected to address the same essential strategies of sustainment of high immunization coverage levels and strengthening of surveillance activities, it is expected that there will be differences in the extent of emphasis between different countries, based essentially on the status of development of the national EPI, the polio immunization coverage rate and the number of cases of poliomyelitis reported annually.

2.2. The basic elements of EPI namely ensuring a good quality vaccine, transported and preserved in such a way that it reaches the target group in good condition, and administration of such vaccine by a trained health worker, need not be re-emphasized.

2.3. Quality assurance and control of all vaccines used should be ensured by a responsible national authority. In countries where non-governmental organizations, private practitioners and pharmacists are providing immunization services or dispense vaccines, attention should be given to ensuring both the quality of vaccines used and the cold chain facilities in such establishments.

The level of effective coverage needed to interrupt transmission of the wild polio virus is not exactly known. It is certainly above the 80% level for infants. The vaccination coverage observed in Member States of this Region which have shown evidence of no cases for the last three years is in the range of 90%. In densely populated areas, particularly those with low standards of sanitation, the effective coverage level to interrupt transmission will be on the higher side.

3. Securing coordinated inputs from various national authorities such as universities and ministries of social affairs and planning as well as international agencies involved, including WHO and UNICEF and other interested agencies, particularly those who are significant contributors to the national immunization programme. This should be ensured at all stages from planning to implementation and evaluation. One of the methods to guarantee such a coordination is to promote the establishment of national advisory committees on which nationally involved groups and international agencies are represented. Consideration should also be given to the inclusion on such a committee of a representative of persons afflicted with poliomyelitis. The identification and designation of a national who would be working within the context of EPI and who would be accountable for these activities is highly recommended.

4. In countries or population groups where the present rate of improvement of vaccination coverage lags behind and many cases of EPI diseases are occurring, it is essential to accelerate EPI services.

Campaigns to promote public awareness about the value of immunization which may take the form of national immunization days or weeks, are proven to be effective tools in making parents seek vaccination for their children.

"Channelling" can also be effective in accelerating the attainment of high coverage in high population density groups. In "channelling" members of the community help to identify susceptible children and "channel" them to receive the needed immunization services.

Immunization campaigns have been adopted by some Member States to achieve rapid increase in coverage with specific vaccines, in many cases OPV. However, experience in the Region has shown that this rapid increase is usually short-lived and is followed by a post-campaign decline in coverage, though not to the same pre-acceleration level. Experience has also shown that sustainability issues are not always given proper attention at the time of planning or implementing such campaigns, particularly those involving the temporary shifting of resources or setting up of temporary vaccination facilities which are soon withdrawn after the end of the campaigns. However, if campaigns are directed toward low coverage sectors of communities they will have a significant role in achieving polio eradication.

Many countries in the Region separate preventive and curative services; usually immunization comes under the preventive services which are usually poor and less developed than the curative. A more permanent acceleration effort could be achieved by promoting the inclusion of curative services in immunization activities; it would be possible thereby to reach more sectors of the population and avoid missed opportunities of immunizing eligible children which is often the case in countries or localities where access to immunization services is limited.

5. Initiatives for production of polio vaccines in the Region should continue to be promoted and supported so as to achieve self-reliance in ensuring the availability of sufficient, potent polio vaccines for all the eligible population. Efforts are needed to ensure quality control of locally produced vaccines to meet international standards. It is essential to ensure that quality control authorities be independent of production authorities.

International agencies should also maintain their role of promoting the production of polio vaccines and also ensuring their availability and quality.

6. National laboratory capabilities should be strengthened to enable the measurement of serum antibodies for various types of polio viruses as well as the isolation, identification and characterization of these viruses.

7. Support should be given to the development of national expertise in the planning, supervision, training, monitoring and evaluation of EPI in general and of polio eradication in particular. This would include: preparation, adaptation and translation of technical guides for various health workers covering different elements relevant to polio eradication, such as the epidemiology of the disease (aetiology, transmission, clinical picture, laboratory diagnosis, methods of collection and transport of specimens, surveillance, outbreak investigation) as well as vaccination procedures and vaccine handling.

8. The establishment of international reference laboratories within the Region should be promoted and supported. These laboratories should be capable of undertaking all relevant virological work including differentiation between the wild polio virus and the vaccine virus. They should be willing to receive specimens from national laboratories for confirmation and to train nationals from other countries of the Region. They should also be easily

accessible. Arrangements have to be made with airlines and national authorities to facilitate transport of samples in the most expeditious and safe way. Efforts will also be made to disseminate kits and guidelines for collection and transport of laboratory specimens.

9. EMRO's technical capabilities should be strengthened, enabling it to respond to national needs and expectations from WHO. This would include the appointment of a Regional Medical Officer whose main responsibility within EPI would be poliomyelitis eradication, as well as the recruitment of short-term consultants.

10. Assistance and support should be provided to national efforts to develop, improve and intensify national systems for surveillance of poliomyelitis to ensure prompt identification and accurate and timely reporting of cases, and control of outbreaks. Most of the elements entered under this heading in the global strategies apply to national and Regional situations in the EMR.

11. National capabilities for rehabilitation of cases of paralytic poliomyelitis should be strengthened. Such efforts, in addition to their humanitarian scope, are felt to be an incentive for communities to seek medical care and hence improve surveillance.

12. Support for and participation in EPI reviews and evaluation should be fostered, to enable documentation of successes and identification of weaknesses, thus facilitating corrective actions.

13. Activities aimed at documenting polio-free zones or national polio eradication should be assisted and supported. The experience of countries which have achieved a polio-free status should be used to develop a system for verification of polio eradication.

14. Polio eradication should be included on the agenda of the annual meeting of national EPI managers to discuss achievements and constraints as well as exchange ideas. These meetings should be coordinated with those of the Technical Advisory Group on polio eradication.

15. Applied research aimed at studying identified problems, and the reasons behind them, should be promoted and supported in order to determine solutions. Such studies may include problems such as missed opportunities or aim at determining sero-conversion rates following vaccination to verify that (a) they are of the desirable levels and (b) that they are due to the vaccine virus.

5. REQUIRED RESOURCES

The cost of fully immunizing the women and children of the Region will amount to some US$140 million annually. Over and above these costs there is need for more financial resources specifically for the polio eradication initiative to cover:

- One long-term medical officer at the Regional Office and the provision of technical services for Member States in the field mentioned in the Plan. This is estimated to be in the order of 20 man/months for 1988-89.

- Development of Regional reference laboratories including provision of consultancy services and some equipment and supplies, particularly standard reagents. Also, selected fellowships will be offered for exchange of visits within the Region and also for visits to developed centres outside the Region.

- Development of training material, translation and support for training courses.

- Grants to support applied research.

The total cost involved until the end of the present biennium amounts to almost US$500 000.

It is hoped that available WHO RB allocations will be supplemented by voluntary funds raised from within the Region or by the Global Programme and also by UNICEF and other international agencies.

6. CONCLUSIONS AND RECOMMENDATIONS

Progress towards achieving full immunization of infants against poliomyelitis in the Eastern Mediterranean Region has been significant. These results reflect not only national determination to achieve the 1990 target but also a high level of commitment by the national staff responsible for immunization.

The target of polio eradication is conceived to be attainable in the Region as a result of this success and the continued national efforts to increase coverage with EPI vaccines and sustain these achievements.

The initiative of poliomyelitis eradication is an additional strength to EPI in general and also will assist in the acceleration of other components of primary health care.

It is recommended that the Regional Committee endorses the Regional plan for polio eradication prepared by EMRO and supported by the Technical Advisory Group on polio eradication.

Annex I

FORTY-FIRST WORLD HEALTH ASSEMBLY WHA41.28

Agenda item 12 13 May 1988

GLOBAL ERADICATION OF POLIOMYELITIS BY THE YEAR 2000

The Forty-first World Health Assembly,

Appreciating the rapid progress being achieved by the Expanded Programme on Immunization, as evidenced by coverage for a third dose of poliomyelitis, or diphtheria/pertussis/tetanus vaccines of over 50% of children under the age of one year in developing countries, as well as by the prevention of the death of more than one million children from measles, neonatal tetanus or pertussis and the prevention of the crippling of nearly 200 000 children through poliomyelitis annually in these countries;

Confident that these coverage rates will continue to rise rapidly and be sustained, in pursuit of the goal endorsed by the Thirtieth World Health Assembly in 1977 (resolution WHA30.53) - the provision of immunization for all children of the world by 1990 - and will lead to further marked reductions in the incidence of most of the target diseases;

Aware that poliomyelitis is the target disease most amenable to global eradication, and that regional eradication goals by or before the year 2000 have already been set in the Regions of the Americas, Europe and the Western Pacific;

Recognizing that the global eradication of poliomyelitis by the year 2000, a goal cited in the Declaration of Talloires,[1] represents both a fitting challenge to be undertaken now, on the Organization's fortieth anniversary, and an appropriate gift, together with the eradication of smallpox, from the twentieth to the twenty-first century;

Noting:

(1) that achievement of the goal will depend on the political will of countries and the investment of adequate human and financial resources;

(2) that this achievement will be facilitated by the continued strengthening of the Expanded Programme on Immunization within the context of primary health care and by improving current poliomyelitis vaccines and clinical and laboratory surveillance;

(3) that efforts to eradicate poliomyelitis serve to strengthen other immunization and health services, especially those for women and children;

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[1] See document A41/10 Add.1: Collaboration within the United Nations System - General Matters: International collaboration for child survival and development.

1. DECLARES the commitment of WHO to the global eradication of poliomyelitis by the year 2000;

2. EMPHASIZES that eradication efforts should be pursued in ways which strengthen the development of the Expanded Programme on Immunization as a whole, fostering its contribution, in turn, to the development of the health infrastructure and of primary health care;

3. INVITES Member States which have covered at least 70% of their target populations with a protective course of poliomyelitis vaccine, and which continue to have cases of poliomyelitis, to formulate plans for the elimination of the indigenous transmission of wild poliomyelitis viruses in ways which strengthen and sustain their national immunization programmes;

4. ENCOURAGES Member States which have not yet attained a 70% coverage rate to accelerate their efforts so as to surpass this level as quickly as possible through means which also improve and sustain the coverage for the other vaccines included within the national immunization programme;

5. REQUESTS Member States which have confirmed the absence of the indigenous transmission of wild poliomyelitis viruses to sustain their success and to offer their technical expertise, their resources and support to countries still working to achieve this goal;

6. URGES all Member States:

(1) to intensify surveillance to ensure prompt identification and investigation of cases of poliomyelitis and control of outbreaks and accurate and timely reporting of cases at national and international levels;

(2) to make all possible efforts to permit the rehabilitation of as many as possible of the children who still become disabled by poliomyelitis;

7. THANKS the many partners already collaborating in the Expanded Programme on Immunization (including the United Nations agencies, multilateral and bilateral development agencies, private and voluntary groups and concerned individuals), especially UNICEF for its overall efforts and Rotary International for its Polio-Plus initiative, and requests them to continue to work together in support of national immunization programmes, including activities aimed at the eradication of poliomyelitis, and to ensure that adequate resources are available to accelerate and sustain these programmes;

8. REQUESTS the Director-General:

(1) to strengthen the technical capacities of WHO in order to be able to respond better to requests from governments for collaboration in:

(a) strengthening planning, training and supervision within national immunization programmes and undertaking country-specific evaluation to facilitate corrective action towards achieving this goal in countries with coverage of less than 70%;

(b) improving programme monitoring and evaluation at national, regional and global levels;

(c) improving national disease surveillance systems to permit the rapid control of outbreaks and the investigation and confirmation of clinical diagnoses of poliomyelitis through serological and virus isolation techniques;

(d) strengthening clinical laboratory services;

(e) improving the quality control and production of vaccines;

(2) to pursue efforts to promote the development and application of new vaccines, other new technologies and knowledge which will help to achieve the eradication goal;

(3) to seek from extrabudgetary contributions the additional resources required to support these activities;

(4) to submit regular plans and reports of progress concerning the poliomyelitis eradication effort through the Executive Board to the Health Assembly in the context of the progress being achieved by the Expanded Programme on Immunization.

Fifteenth plenary meeting, 13 May 1988
A41/VR/15

Annex II

LIST OF PARTICIPANTS

I. MEMBERS OF THE TECHNICAL ADVISORY GROUP

1. Dr A. Al Awadi	Minister of Planning, Kuwait Ministry of Planning, Kuwait
2. Dr M.I. Burney	Adviser to the President of Pakistan National Institute of Health, Islamabad, Pakistan
3. Professor M. Gaber	Professor of Paediatrics, Cairo University and Secretary General, Arab Council for Childhood Development, Cairo, Egypt
4. Dr Imam Z. Imam	Ex-President of the Egyptian Organization for Biological Products and vaccines (VACSERA)

II. WHO SECRETARIAT

1. Dr H. Gezairy	RD/EMRO
2. Dr M.H. Wahdan	Director DPC/EMRO
3. Dr R. Henderson	Director EPI/Geneva
4. Dr J. Keja	Medical Officer EPI/Geneva
5. Dr Y. Guerdon	Senior Virologist, EDS, WHO/Geneva

III. UNICEF

Mr André Roberfroid	Senior Regional Planning Officer UNICEF Regional Office for the Middle East and North Africa, Amman, Jordan.

REGIONAL COMMITTEE FOR THE
THE EASTERN MEDITERRANEAN

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POLIOMYELITIS ERADICATION IN THE EMR
SUMMARY OF RECOMMENDATIONS

Progress towards achieving full immunization of infants against poliomyelitis in the Eastern Mediterranean Region has been significant. These results reflect not only national determination to achieve the 1990 target but also a high level of commitment by the national staff responsible for immunization. The initiative of poliomyelitis eradication is an additional strength to EPI in general and also will assist in the acceleration of other components of primary health care.

The Technical Advisory group for poliomyelitis eradication in the Eastern Mediterranean Region reviewed the situation of poliomyelitis and its vaccination in the Region and agreed that the target of polio eradication is attainable in the Region in the light of the continued national efforts to increase coverage with EPI vaccines and sustain these achievements.

The Technical Advisory group reviewed the draft regional plan and endorsed it. It has made the following main recommendations:

1. The Regional plan be submitted to the RC for its endorsement and support.

2. Strengthen EMRO's technical capabilities to enable it to respond to national needs and expectations from WHO. The group noted with satisfaction the RD decision to appoint a Regional medical officer whose main responsibility within EPI would be poliomyelitis eradication, and recommend further strengthening by recruitment of short-term consultants.

3. Secure funds both from Regular Budget and voluntary funds to support this initiative.

The cost of fully immunizing the women and children of the Region will amount to some US$140 million annually. Over and above these costs there is need for more financial resources specifically for the polio eradication initiative to cover:

- The salaries of the long-term medical officer at the Regional Office and also the provision of technical services for Member States in the fields mentioned in the plan. This is estimated to be in the order of 20 man/months for 1988-89.

- Development of Regional reference laboratories including provision of consultancy services and some equipment and supplies, particularly standard reagents. Also selected fellowships for exchange visits within the Region as well as for visits to developed centres outside the Region.

- Development of training materials, translation and support for training courses.

- Grants to support applied research.

The total cost involved until the end of the present biennium amounts to almost US$500 000.

It is hoped that available WHO RB allocations will be supplemented by voluntary funds raised from within the Region or by the Global Programme and also by UNICEF and other international agencies.

4. Polio eradication should be included in the agenda of the annual meetings of national EPI managers; achievements and constraints should be discussed as well as ideas exchanged. These meetings should be coordinated with those of the Technical Advisory Group on Polio Eradication.

5. Support for the participation in EPI reviews and evaluation should be fostered, to enable documentation of successes and identification of weaknesses, thus facilitating corrective actions.

6. Activities aimed at documenting polio-free zones or national polio eradication should be assisted and supported. The experience of countries which have achieved a polio-free status should be used to develop a system for verification of polio eradication.