SEA-Polio-25
Distribution: General

WHO/SEAR Technical Consultative Group on Polio Eradication

Report of a Special Meeting
Yangon, Myanmar, 29- 31 May 2001

WHO Project: ICP VAB 001

World Health Organization
Regional Office for South-East Asia
New Delhi
July 2001

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Annexes

1. INTRODUCTION

The Special Meeting of WHO/SEAR Technical Consultative Group (TCG) on Polio Eradication was held in Yangon, Myanmar from 29 – 31 May 2001. The purpose of the meeting was to review and advise SEAR countries on:

(1) Progress towards polio eradication;

(2) Quality and sustainability of AFP surveillance;

(3) Quality of supplementary immunization activities in polio-endemic countries;

(4) Use of surveillance data to guide supplementary immunization activities, and

(5) Progress towards strengthening routine immunization service delivery.

The TCG members present were: Dr Prayura Kunasol, Chairperson; Dr R. N. Basu, Vice-Chairperson; Dr Walter Dowdle, Rapporteur; Dr A. Ramalingeswara Rao, and Dr Stephen L. Cochi. Dr Isao Arita was unable to attend. The TCG with deep regrets paid tribute to Dr. Hadi Abednego, ICCPE member from Indonesia, who passed away a few months ago.

The inaugural session was presided over by His Excellency Major-General Ket Sein, Minister for Health, Myanmar. A message from the Regional Director, WHO/South-East Asia Region was delivered by Dr. Palitha Abeykoon, Director, Health Technology and Pharmaceuticals, WHO/South-East Asia Region. Mr. Bertran Mendis, Country Representative, UNICEF, and Dr. Anton Fric, Ag. WHO Representative Myanmar addressed the participants. Dr. Prayura Kunasol, Chairman, SEAR Technical Consultative Group, delivered a vote of thanks. Also in attendance were representatives from USAID, Washington and Bangladesh, Centers for Disease Control, Atlanta, Rotary International, Core NGO Group, JICA Myanmar, and experts from the Region. (See Annexes 1 and 2 for list of participants and agenda.)

2. GENERAL SUMMARY

TCG congratulated SEAR endemic countries on the outstanding results of their accelerated polio eradication activities, reaching almost 183 million children

with more than 800 million immunization episodes in India, Bangladesh, Myanmar and Nepal. Polio cases in the Region declined by 82% in 2000. TCG further commended the SEAR laboratory network for its outstanding proficiency, performance, and timeliness of data, contributing in full partnership to these achievements.

As SEAR nears eradication, TCG reaffirms its previous recommendations that any wild poliovirus isolation in the Region constitutes a public health emergency. The key to timely emergency response is early recognition, requiring prompt and accurate reporting of AFP surveillance and laboratory results. Of similar importance are regular critical analyses of surveillance data at national and sub-national levels to identify possible clusters, high-risk areas, surveillance weaknesses, and areas requiring supplemental immunization.

Maintaining high levels of population immunity in all SEAR countries is crucial to prevent reintroduction of polio through virus importation or through vaccine-derived poliovirus (VDPV), as occurred on the Island of Hispaniola. New and innovative communications and social mobilization activities are needed to maintain required levels of immunity and reach marginalized and under-reached communities. High performance AFP surveillance, fully integrated with the laboratory network, will be required for a number of years, extending into the post-OPV period, to assure absence of poliovirus circulation.

Towards that end, TCG was particularly concerned about the deteriorating situation in Indonesia where AFP rates are falling and immunization coverage decreasing. TCG recognizes the challenges inherent in completing eradication while maintaining high quality surveillance and immunization in polio-free countries. It expressed its satisfaction at the Regional Office working closely with countries and their immunization partners to determine national needs, actions and advocacy to achieve regional goals.

3. ERADICATION OF POLIOMYELITIS

TCG noted with satisfaction that polio cases in the Region declined by 82%, from 3,365 cases in 1999 to 598 cases in 2000. In the same time period, laboratory-confirmed cases declined by 77%, from 1,161 to 272. Of the

latter, India reported 265, Bangladesh 1, Nepal 4, and Myanmar 2. Of the cases in India, Uttar Pradesh reported 179 (P1-106; P3-73), Bihar 50 (P1-11; P3-39), and the remainder of the country 37 (P1-22; P3-15).

Of particular concern was the occurrence of polio cases in north Karnataka and Maharashtra after the mop-ups were conducted, suggesting that the quality of the rounds may have been compromised. The occurrence of a confirmed case in Kerala after a gap of three years with no polio cases reinforced the importance of maintaining high-quality surveillance and OPV coverage levels.

Bangladesh reported one laboratory-confirmed case in 2000, compared with 29 cases in 1999. Despite improved surveillance, Bangladesh had not isolated wild poliovirus since August 2000. Nepal reported four cases (P3) along the Indian border, emphasizing the continuing risk of repeated importation of wild poliovirus into the Terai region. Myanmar reported two cases (P1) in January 2000, representing continuation of the 1999 transmission along the border with Bangladesh. The status of DPR Korea is uncertain because of insufficient surveillance data.

Wild poliovirus circulation in north India continued in 2001. Thirteen wild polioviruses (P1-8; P3-5**)** had been isolated to date, 8 (P1-3; P3-5) in Uttar Pradesh, P1-3 in Bihar, P1-1 in Delhi, and P1-1 in Haryana.

A wild poliovirus P1 was isolated in April 2001from sewage in Mumbai. The isolation of a wild virus from the environment is often difficult to interpret in the absence of information on the human source. Genome characterization of the Mumbai isolate suggests either continued circulation of virus imported from north India five months earlier or reimportation from the same source. Analysis of the sequencing data suggests the former is the most likely. Detection of this wild virus from whatever source calls for prompt programmatic action.

3.1 Acute Flaccid Paralysis and Poliovirus Surveillance

TCG was pleased to note that all countries of the Region applied the virological classification scheme except DPR Korea, which was progressing toward that goal.

Table 1. *Classification of AFP Cases, Comparative Table Week 20, 2000 and 2001*

Classification of AFP cases and key surveillance indicators 2000 and 2001

Country	Week 20 2000 (ending 20 May 2000)										Week 20 2001 (ending 21 May 2001)								
	AFP						Surveillance Indicators				AFP					Surveillance Indicators			
		Case Classification					Annualized AFP Rate[2]		Specimen		Case Classification					Annualized AFP Rates		Specimen	
		Polio[1]																	
	AFP Cases	Total	Wild Poliovirus	Compatible	Discarded (non-polio AFP)	Pending	total AFP rate	non-polio AFP rate	% with 2 spec. w/in 14 days[3]	% with any specimen	AFP Cases	Confirmed Polio[1]	Compatible	Discarded (non-polio AFP)	Pending	Total AFP Rate	Non-Polio AFP Rate[2]	% with 2 spec., 24 hrs apart, w/in 14 days	% with any specimen
Bangladesh	259	66	2	0	17	176	1.33	0.09	67	99	430	0	1	227	202	2.21	1.17	77	99
Bhutan	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0.00	0.00	0	0
DPR Korea	26	0	0	0	0	26	1.05	0.00	0	0	15	(0)	0	0	15	0.61	0.00	0	0
India	2807	74	74	19	2039	675	1.98	1.44	83	98	1922	13	5	1383	521	1.36	0.98	85	98
Indonesia	150	13	0	0	100	37	0.60	0.40	89	98	77	0	0	55	19	0.31	0.22	81	97
Maldives	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0.00	0.00	0	0
Myanmar	53	7	2	0	36	10	0.86	0.58	72	98	73	0	0	56	17	1.18	0.91	88	100
Nepal	74	4	1	0	50	20	2.01	1.36	84	99	62	0	0	38	24	1.68	1.03	82	100
Sri Lanka	28	0	0	0	22	6	1.32	1.03	93	100	40	0	0	29	11	1.88	1.36	80	98
Thailand	72	6	0	0	58	8	1.13	0.91	89	97	78	0	0	74	4	1.22	1.16	94	97
TOTAL	**3469**	**170**	**79**	**19**	**2322**	**958**	**1.67**	**1.12**	**82**	**98**	**2697**	**13**	**6**	**1862**	**813**	**1.30**	**0.90**	**84**	**98**

[1] In 2000 only India and Sri Lanka used virologic classification scheme. As of Januray 2001, all countries are using the virologic classification scheme except DPR Korea. DPR Korea uses the clinical classification scheme ; these clinically confirmed cases are designated in parenthesis

[2] Expected rate is at least 1 case non-polio AFP per 100,000 children aged <15 years.

TCG congratulated SEAR countries on continuing improvement in surveillance quality. In 2000, Bangladesh, Bhutan, and Myanmar joined India, Nepal, Sri Lanka, and Thailand in achieving the target non-polio AFP rate. TCG especially commended DPR Korea for its extraordinary improvement in the total AFP rate in 2000. Regrettably, surveillance indicators reversed in Indonesia, but efforts to improve performance in 2001 were underway with the addition of six surveillance officers and development of a plan for strengthening surveillance through advocacy, training, supervision, and expansion of the number of provincial level surveillance officers to cover all provinces.

AFP surveillance and quality of supplemental immunizations were greatly improved by the recruitment of additional surveillance officers during 2000 in India, Bangladesh and Myanmar. During 2000, Nepal was unable to recruit and deploy additional surveillance officers who are needed to strengthen AFP surveillance in that country. TCG expressed concern that AFP surveillance lagged during periods of intense SIAs in some countries, and noted that solutions would vary with the country. SEAR AFP surveillance reviews were scheduled for 2001 in India (4-12 June), DPR Korea (14-27 July), and Bangladesh (23 July to 3 August). A review of Nepal had been completed. Reviews were planned for 2002 in Indonesia, Myanmar, Sri Lanka, and Thailand.

In the final stages of polio eradication it is critical that the collection, analysis and reporting of AFP surveillance data be accurate and timely at the sub national, national and regional levels. The following table summarizes weekly reporting patterns from the 10 Member countries to the Regional Office for the first 20 weeks of 2001.

Table 2. Timeliness of Weekly Reporting Week 1-20, 2001, SEAR

Country	Weekly reports received
Bangladesh	65%
Bhutan	75%
DPR Korea	60%
India	100%
Indonesia	75%
Maldives	100%
Myanmar	90%
Nepal	50%
Sri Lanka	85%
Thailand	85%

TCG commended the SEAR Laboratory network for its continuous growth and remarkable achievements since the last meeting. With the National Polio Laboratory, Bangladesh, achieving accreditation in May 2001, 16 of the 17 laboratories in the SEAR Polio Laboratory Network were fully accredited. Mumbai was accredited as a Global Specialized Laboratory and Chennai, Lucknow, and Bandung as National Laboratories with ITD capabilities, with the remaining three Regional Reference Laboratories and four National Laboratories re-accredited. The DPR Korea laboratory passed the most recent proficiency test and could undergo accreditation review late in 2001. Specimens and isolates from 2000 and early 2001, and wild poliovirus isolates from 1996, from DPR Korea will be processed in the Beijing Reference Laboratory. Parallel testing of stool samples will continue until the Laboratory is accredited. Poliovirus isolates will however, continue to be confirmed at the Beijing laboratory.

During 2000, the SEAR National Polio Laboratory Network processed 20453 specimens; 93% of the results were reported within 28 days with 16%

isolation of NPEV. During the first 20 weeks of 2001, 5,061 specimens were received; the NPEV isolation rate was 16% and 99% of results were reported within 28 days.

The Regional Reference Laboratories are able to consistently provide intratypic differentiation results within 28 days of confirmation of primary isolation results and most are available within 10 to 14 days. India has shown that it is possible to identify and differentiate wild poliovirus within a median time period of 45 days from the onset of paralysis and Bangladesh within a median time of 49 days in 2000 and 41 days during 2001. TCG noted that all wild poliovirus isolates in the Region were sequenced. See Annex 3 for report and recommendations of the *Tenth Meeting of Virologists of SEAR Polio Laboratory Network*.

As most countries in the Region, and most parts of India become polio-free, TCG reaffirmed its 2000 recommendation that any wild poliovirus isolation constitutes a public health emergency. The key to a timely response to the emergency is early recognition, which in turn is dependent on timely and accurate reporting of AFP surveillance and laboratory results and tracking of pending cases. Regular critical analyses of surveillance data at national and sub-national levels are essential to identify possible clusters, high-risk areas, surveillance weaknesses, and areas requiring supplemental immunization. Rapid programmatic responses are critical to minimize the spread of the virus.

TCG endorsed in principle the draft guidelines prepared WHO headquarters, Geneva that defined suspected polio outbreaks for rapid investigation as either a cluster of AFP cases strongly suggestive of polio before final classification or a cluster of polio compatible cases if either cluster occurred in a limited geographic area or within a two month time period. Distribution of the *Guidelines on response to a suspected outbreak of poliomyelitis was* anticipated in July 2001.

RECOMMENDATIONS

Countries should:

(1) Regularly monitor weekly AFP reporting, including zero reporting, for completeness, timeliness, and geographical and population representation at all levels;

(2) Every month report to the Regional Office on completeness and timeliness of reporting;

(3) Prioritize reporting sites according to population risks and performance indicators, making weekly visits to high priority sites and monthly visits to others;

(4) Analyze surveillance data at least once a month down to the district level, including AFP surveillance indicators of non-polio AFP rates, collection of adequate stools, rates of stool collection, and rates of 60-day follow-up among cases with inadequate stools;

(5) Assign high priority to the investigation of AFP cases with a high index of suspicion (fever at onset, age < 5 yrs, asymmetrical paralysis, unvaccinated, minority group, clustering), promptly transport specimens to the laboratory and flag for priority testing and reporting;

(6) Investigate all AFP cases within 48 hrs of notification and ensure collection of two adequate stool specimens from each case; track cases without adequate specimens for 60-day follow-up (target >80%), and monitor the number and proportion of cases pending final classification after 90 days post paralysis to identify and correct delays;

(7) Reduce delays in AFP case notification by increasing awareness among health care providers, including traditional and unlicensed healers;

(8) Monitor and map all AFP cases, including pending and compatible cases, and analyze for clustering in time and place;

(9) Initiate a full epidemiological and virological investigation and notify the Regional Office within 48 hours of detection of a suspected polio outbreak, as defined in the above *Guidelines,* and confirm or discard as "suspected" within one month;

(10) Ensure intervals between onset of paralysis and receipt of final intratypic differentiation (ITD) results are less than 60 days for >80% of cases. Each step in the process should be monitored to ensure the target is met;

(11) DPR Korea should make special efforts to reduce the time interval from specimen collection to receipt by the laboratory, the target being receipt of 80% of specimens within three days of collection;

(12) Establish a National Expert Review Committee by the end of September 2001, with documented terms of reference, operating procedures, and training to ensure accurate and timely case classification. Committees in

endemic and high-risk countries should meet monthly. Countries without expertise to assemble an Expert Group should seek external technical support through WHO, and

(13) Note that AFP is the only approved method of surveillance for SEAR countries. Environmental sampling may prove useful for supplemental surveillance later in eradication, but at present is a subject of research. Appropriate methodology and criteria for application await pilot study results in this and other regions.

Laboratories should

(1) Always use ELISA as one of the two tests for intratypic differentiation of poliovirus isolates. All isolates with non vaccine-like antigenic properties by ELISA should be forwarded promptly to a global specialized laboratory for further characterization, even if the virus is vaccine-like by probe hybridization.

(2) Report immediately all wild polioviruses confirmed by intratypic differentiation to the national programme, WHO Regional Office, and WHO headquarter, Geneva.

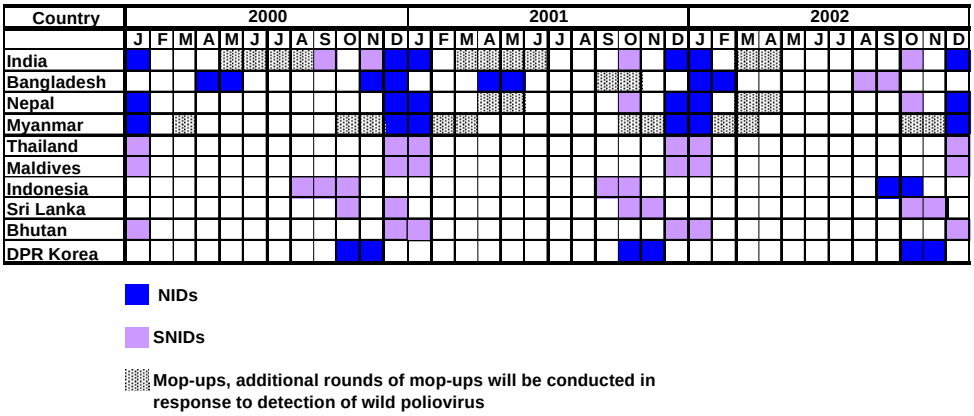
(3) Report immediately any wild virus isolates of extra-AFP origin (e.g., supplementary surveillance or routine diagnostic tests) to the national programme, WHO Regional Office, and WHO headquarter, Geneva and forward the isolate as a matter of urgency to a global specialized laboratory for sequence analysis.

3.2 Supplementary Immunization

TCG congratulated SEAR countries on their responses to the WHA resolution, and the Dhaka and Lucknow TCG recommendations calling for polio-endemic countries to accelerate eradication activities. Supplemental immunization activity has intensified in the past three years, with countries adopting a two-pronged strategy of additional rounds of NIDs/SNIDs to increase immunity levels and house-to-house search and immunization to improve quality. Intensified activities in 2000 reached almost 183 million children, resulting in more than 800 million immunization episodes in India, Bangladesh, Myanmar and Nepal, and 550 million children worldwide. The house-to-house activities were crucial for immunizing millions of previously un-reached children.

The intensified immunization strategy will continue as illustrated in the following table of planned activities for 2001 and 2002.

Table 3. *South-East Asia SIA calendar for 2000-2002*



(1) National and Sub-National Immunization Days

Bangladesh conducted two rounds of intensified NIDs in November and December of 1999, again in April and May 2000, followed by two rounds of NIDs in the fall and winter, and two rounds again in April-May 2001. Bangladesh also conducted multi-antigen SNIDs covering 15% of the highest risk population in September of 1999 and August 2000. India conducted two rounds of SNIDs in the high burden zones of Uttar Pradesh, Bihar, Delhi and West Bengal, one round of SNIDs in the middle burden zones of Madhya Pradesh, Orissa, Punjab, Rajasthan, Assam, Gujarat and Haryana in autumn 2000 and two rounds of NIDs in the winter. Both countries conducted fixed post immunization followed by intensive house-to-house search-and-immunize campaigns, with over 10% of children reached in the latter. India and Nepal synchronized NIDs. DPRK and Myanmar each conducted two rounds of NIDs. Bhutan, Indonesia Maldives, Sri Lanka, and Thailand conducted SNIDs in high-risk areas.

Bangladesh, DPR Korea, Nepal, Myanmar, and the States of Orissa, Assam and UP in India provided vitamin A supplementation during the NIDs to over 35 million children.

Reviews of reports on evaluation and monitoring the NID process revealed that significant improvements have been made in planning and implementation, training of vaccinators and supervisors, and fund flow from the central level to the field. However, the quality of supervision remains

weak in most places, and house-to-house/child-to-child activities do not always reach children living in the border areas, unauthorized settlements, slums and middle and upper class urban dwellings.

TCG expressed concern about SEAR vaccine supplies, which were a critical issue in 2000 and early 2001. Pressure on global vaccine supply is expected to continue into 2002. However, India's blending capacity is adequate to satisfy domestic needs for SIA and routine immunization. It was noted with appreciation that WHO, UNICEF, and the Government of India were collaborating to monitor production of vaccines of assured quality. Indian manufacturers and the National Control Laboratory, India are participants in an annual potency proficiency testing-programme.

Recommendations

(1) All countries should conduct at least two rounds of NIDs or SNIDs during the low virus transmission period of 2001/2002 according to the above calendar and develop plans of action for SIA activities through certification in 2005.

(2) Endemic countries and countries at risk of cross-border polio transmission should continue the fixed post strategy followed by extensive house-to-house/child-to-child immunization. States and districts that exclusively employ house-to-house strategies should continue to do so.

(3) Countries should use at least two of the following criteria for selection of areas to be covered by SNIDs: less than 80% routine immunization coverage, sub-certification levels of AFP surveillance, cluster of polio-compatible cases, densely populated areas with poor sanitation, areas bordering polio-endemic countries, or migrant populations from endemic countries.

(4) Indonesia should expand the SNIDs in high-risk areas during 2001 with special emphasis on improved quality through advanced planning, tight coordination and supervision, and appropriate logistical support. High quality NIDs should be planned in 2002 to restore population immunity, which has declined over the past few years.

(5) Countries should use the proposed operational indicators attached (Annex 4) to monitor SNID planning and implementation at different

levels, with corrective action taken during activities or immediately following the campaign.

(6) Bangladesh, India, Myanmar and Nepal, should, as much as possible, coordinate and synchronize dates of NIDs/SNIDs and mop-ups for border cases, field activities, and development and implementation of joint micro-plans for border areas.

(7) Countries reaching zero transmission should develop communication and social mobilization plans to ensure sustainable polio-free status through high routine immunization and continued SIAs.

(8) In view of limited vaccine availability, countries should strengthen cold chain systems, OPV procurement and distribution mechanisms to reduce vaccine wastage and maintain quality of OPV. Emphasis should also be placed on strengthening stock management at all levels and on training of vaccinators around vaccine wastage issues, including the UNICEF/WHO open vial policy. The status of vaccine supply should be openly communicated among polio partners.

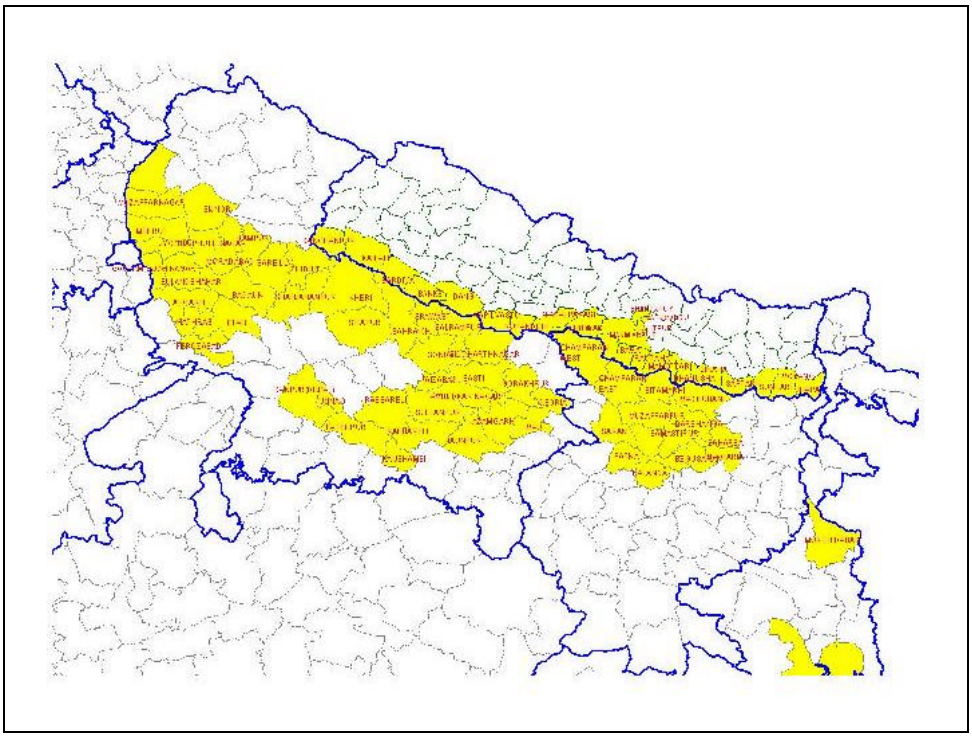
(9) Countries with children with vitamin A deficiencies should use the opportunity provided by NIDs to administer vitamin A to children between 12 and 59 months.

(2) Mopping-Up

Mop-ups are massive, active house-to-house strategies of the highest quality, requiring leadership, detailed planning, and supervision to immunize all under-five children including unreached susceptible populations. Mop-ups are applied as pre-emptive strategies and in response to evidence of poliovirus circulation in the final phase of eradication.

In 2000, India conducted eight large-scale mop-ups with about 22.7 million children aged less than five years immunized with two OPV doses. Pre-emptive mop-ups were conducted during April and May 2001 in the high-risk districts of Uttar Pradesh and Bihar, together with the 20 bordering districts of Nepal and three high-risk districts in Kathmandu Valley, vaccinating about 33 million children (Figure 4).

Figure 1. ***Synchronized Mop-Up Activity in the Highest Risk Districts of India and Bordering Districts of Nepal, 2001***



Mop-ups in the same time period were mounted in Delhi and Haryana (one district) in response to wild poliovirus isolations. North Karnataka, Maharashtra and Kerala performed an additional round of mop-ups in March 2001. Mop-up immunization in response to five wild poliovirus isolates in Maharashtra covered more than four million children. West Bengal (five districts) will conduct mop-ups in May and June. Myanmar conducted its fourth polio mop-ups in February and March 2001 covering 22 townships in high-risk areas in Chin, Sagaing and Kachin bordering with India.

The Group commended India, Nepal and Myanmar on their large-scale mopping-up campaigns and their extensive evaluations, which yielded valuable information on micro-planning, daily work plans, workloads, manpower needs, supervision, and funding. High quality mopping-up operations are crucial to eliminating the last strains of virus transmission in the Region.

Recommendations

Countries should:

(1) Consider detection of wild poliovirus as a public health emergency. Extensive mop-up operations should be initiated within two months of onset of the index case to minimize virus spread. In polio-free areas, documentation of interruption of transmission should be complete within six months.

(2) Be guided by the date of paralysis onset, recent history of transmission, population density and movement, and quality of AFP surveillance when deciding on the scale of mop-up operations. Mop-up responses should be appropriate for the area, but striving for multi-districts, targeting a million or more children, with interstate and intercountry coordination and planning as needed.

(3) Consider clusters of polio-compatible cases to be included in mop-up activities when targeting the last areas for interruption of virus transmission.

(4) Do high quality micro-planning, which is the crucial element in successful mop-up operations. Monitoring and supervision checklists are important to ensure maximum efficiency and timely correction of shortcomings during mop-up operations.

(5) Respond to a wild virus detected between the first and second mop-up round by planning for one additional round. Respond to a virus detected after the second mop-up round by planning for two additional rounds. The decision to mount such additional rounds must be made on its own merits, taking into consideration time of isolation in relation to rounds, surveillance status, history of SIA/surveillance in the neighbouring districts, and quality of rounds.

(6) In keeping with the previous recommendation, plan for mop-ups in response to the isolation of a wild poliovirus from any source (e.g., supplemental surveillance studies and routine diagnostic tests). The size and scope of the mop-up should be guided by an investigation into the circumstances of the isolation (e.g., the April 2001 environmental isolate from Mumbai) quality of previous rounds and surveillance history.

(7) India and Nepal should consider another round of pre-emptive mop-ups in the high-risk districts of UP and Bihar and the Terai region respectively early in 2002, as should Myanmar. The areas to be targeted

should include districts, as well as neighbouring districts, with wild virus cases in 2001.

(8) UNICEF/WHO should provide for a reserve of at least a one million doses of vaccine to respond to emergency mop-up needs.

3.3 Communication Advocacy and Social Mobilization for Polio Eradication

The Group recognizes the achievements in the Region in communication and social mobilization to help reach marginalized and under-reached communities. As the Polio Eradication Programme matures, communication and social mobilization activities need to rapidly address new and challenging situations as they arise. Recognizing that communication strategies should be driven by data collected during all polio eradication activities, the Group recommends the following.:

Recommendations

(1) District-level social mobilization coordinators should be used in the highest risk districts to increase and sustain awareness about polio eradication, AFP surveillance and routine immunization activities. Special efforts should be made to ensure adequate and timely support from private medical practitioners, religious and political leaders and families / communities in high-risk areas.

(2) Strong advocacy activities should help to sustain political commitment at regional, country, state and district levels, as it is critically important for the success of the programme.

(3) Updated programme information including clear explanations of the impact of the recent Hispaniola Outbreak and Wild Poliovirus importation in Bulgaria of the program in the Region should be appropriately disseminated to EPI Managers and Medical Officers in the field. Health reporters and other key media should also be briefed.

(4) A draft Regional Plan of Action for communication, advocacy and social mobilization should be developed and presented at the next meeting of the TCG.

3.4 Sustaining Programme Quality

Maintaining quality surveillance and high immunization coverage is essential until global eradication of wild poliovirus is achieved and the decision is made to stop use of OPV worldwide. Both are required to prevent reintroduction of polio through virus importation or through vaccine-derived poliovirus (VDPV) as occurred on the Island of Hispaniola. Emergence of circulating VDPV is evidence of programme failure. The Hispaniola outbreak has important implications for SEAR countries and demonstrates the need to rapidly achieve global eradication to minimize the opportunity for repetition of such events elsewhere.

TCG is particularly concerned about the deteriorating situation in Indonesia, where AFP rates are rapidly falling and immunization coverage decreasing. Reasons for the alarming reversal of its prior laudable performance appear to be due to economic challenges, health services decentralization, and political uncertainties. The Group is pleased to note that the Regional Office is working closely with Indonesia and its immunization partners to determine national needs, actions and advocacy to assist the country in achieving its surveillance and immunization goals.

Recommendations

(1) WHO should explore opportunities with member countries to incorporate capacity building for high quality AFP surveillance into surveillance programmes for other important vaccine preventable diseases.

(2) Quality of AFP surveillance should be an important component of post eradication decisions on how and when to stop OPV immunization.

(3) WHO should assist countries in designing long-range plans to closely monitor and ensure high vaccine coverage during the post-certification period leading to cessation of immunization in the next 10 years or thereabouts.

4. WILD POLIOVIRUS LABORATORY CONTAINMENT

Laboratory containment activities are lesser priorities in the Region where major energies are being focused, as appropriate, on AFP surveillance and supplemental immunization activities. However, the Group commended the

Region for developing plans in polio-free countries (Indonesia, Maldives, and Sri Lanka) to conduct laboratory surveys and establish national and Regional inventories. Plans of action for Bangladesh, Bhutan, Myanmar, Nepal, and Thailand were scheduled for development in 2001. Although the total number of laboratories in this Region might be fewer than in others, the need for appropriate containment will be greater when all polio immunizations are discontinued.

5. ROUTINE IMMUNIZATION

TCG noted that efforts to strengthen routine immunization had gained momentum since its last meeting in Calcutta. The Regional Working Group on Immunization for South-East Asia was formed in November 2000, with the membership of WHO Regional Office for South-East Asia, UNICEF ROSA, World Bank, Bill and Melinda Gates Children's Vaccine Programme, donor agencies and member countries. The goals of the Group are to revitalize routine EPI and facilitate introduction of new and under-utilized vaccines into immunization programmes of Member Countries. In addition, EPI managers from SEAR participated in a Region-wide workshop on immunization safety in November 2000 in response to the recommendations of the Calcutta TCG.

Bangladesh, DPR Korea, India, Indonesia, Nepal, and Sri-Lanka had completed EPI reviews in preparation for GAVI project proposals. Preparations for EPI reviews in Bhutan and Myanmar were underway. These reviews had shown that administrative reports of routine immunization coverage were substantially higher than survey results. Bangladesh had been conducting annual coverage evaluation surveys since 1991. The surveys revealed the reasons for low immunization coverage and dropouts ranged from poor understanding of the EPI schedule among parents to inaccessibility of immunization sites or dissatisfaction with service.

The Group commended Sri Lanka and Maldives on their sustained high levels of routine immunization since the early 1990s and said that, both could serve as models for other countries in the Region.

The polio eradication initiative demonstrated that health goals were achievable with commitment, strong management, high standards, and attention to quality. Many basic lessons from the initiative were transferable to achieving routine immunization goals in the Region. The Group noted that a separate meeting was scheduled in late 2001 to focus on routine immunization and recent developments in the Region.

Recommendations

(1) All countries should utilize the checklist developed by WHO headquarter, Geneva to ensure that polio eradication activities provided maximum benefit to strengthening EPI.

(2) Countries should work with the WHO to prepare specific plans for strengthening EPI, particularly in low performing districts, for presentation at the 2001 meeting.

6. CERTIFICATION OF POLIO ERADICATION IN SEAR

At its fourth meeting on 21-23 March 2001, the SEAR Regional Commission for Certification of Polio Eradication reviewed country reports from Bhutan, DPR Korea, Sri Lanka, Thailand, and Indonesia. All countries should by now have an operational National Certification Committee (NCC). The Group mentioned the progress report from Thailand, which established a high standard for the Region. The key recommendations of the Commission were as follows:

(1) The role of NCC should be to collect, review and analyze information to its satisfaction and prepare a country report for presentation to ICCPE. These data must contain convincing evidence of interruption of polio transmission in the country. When not convinced, NCC should take the responsibility of asking the national programme to provide convincing data to the satisfaction of the Committee.

(2) NCC should submit a country report in a format based on the Manual of Operations. NCC should supplement the Manual of Operations with its own analysis and assessment of the situation of poliomyelitis eradication in the country and a statement of its opinion on poliovirus circulation in the country in the format recommended in the Plan of Action. Other written material, graphics and tables should be annexed.

(3) The country report should provide a description of the structure of the Ministry of Health and specify the department responsible for polio eradication. A description should be given of the staff with direct responsibility for polio eradication activities, specifically AFP surveillance.

(4) An unusually high non-polio AFP rate, especially a rate more than 3 per 100 000 population aged less than 15 years of age, should trigger an investigation.

(5) To the maximum extent possible, all AFP cases should have a final diagnosis recorded.

(6) At this phase of the eradication initiative, polio compatible AFP cases are of concern because of the uncertainty that these could be polio and should be given the highest priority in their analysis to determine an appropriate response.

7. CROSS-BORDER WORKING GROUP

The Cross-Border Working Group met in a parallel session on 31 May 2001. In SEAR, cross-border meetings have been held between China, Laos and Myanmar, Bangladesh and Myanmar, and India and Nepal. Representatives from endemic countries sharing borders presented their experiences with cross-border coordination activities. Cross-border meetings have proven especially useful at the local level, to exchange information on polio and AFP surveillance, and coordinate supplementary immunization activities. The following recommendations were formulated in context of the TCG recommendations that AFP and SIA data are regularly shared among countries and that coordination meetings take place locally among border district officials.

Recommendations

(1) Central and state official should encourage, facilitate and support border planning meetings. Field coordination meetings should focus on joint micro-planning at district and sub-district levels covering vaccination posts at border crossings; mobile teams; families living in border areas such as Chitmahal; unifying grass root IPC/social mobilization messages.

(2) Central and district levels should immediately disseminate AFP information to border districts, facilitated where applicable, through the WHO network of SMOs.

(3) Cross-border notification of wild poliovirus, compatible and hot AFP cases should be done with neighbouring districts within 48 hours. The information should include all epidemiological data related to the case.

(4) In response to TCG recommendations, the government of India and Bangladesh should convene a cross-border meeting at least one month before the up coming SNID in West Bengal to coordinate increased coverage in border communities including the Chitmahal area.

Annex 1

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Annex 2a

AGENDA OF SPECIAL TCG MEETING

Day 1: Tuesday, 29 May 2001

1400 hrs	Registration	
1430-1530 hrs	Inaugural session	
1545 hrs	Welcome remarks and introductions	HTP
	Updates:	
1600 hrs	Global update	HQ
1630 hrs	SEAR update	SEARO
1645 hrs	SEAR Polio Laboratory Network: Ninth Virologist Meeting Recommendation	SEARO
1730 hrs	Closure	
1800-1900 hrs	Meeting of TCG Members	

Day 2: Wednesday, 30 May 2001

0830-0900 hrs	Country report on progress in polio eradication:	
0830 hrs	Progress and status in India	India
0845 hrs	Discussion	
0900-1500 hrs	Supplementary Immunization (SIA):	
0900 hrs	Impact of high-quality intensified NIDs	Bangladesh
0915 hrs	Discussion	
0930 hrs	SNIDs in a small land-locked country	Bhutan
0945 hrs	SNIDs in a large island/conflict areas	Indonesia
1000 hrs	Discussion	
1045 hrs	Mop-ups: Definition, criteria extent/scale and impact; monitoring	Myanmar
1100 hrs	Monitoring of mop-ups	NPSP/India
1115 hrs	Discussion	
1145 hrs	Proposal on supplemental immunization	SEARO
1200 hrs	Discussion	
1330-1400 hrs	Meeting of TCG Members	
1400 hrs	Update on OPV supply and projections	UNICEF, Copenhagen
1415 hrs	Discussion	

1430 hrs	Update on advocacy/IEC initiatives	SEARO
1445 hrs	Discussion	
1515-1700 hrs	AFP surveillance:	
1515 hrs	Review of AFP surveillance	Nepal
1530 hrs	Quality of AFP surveillance	HQ/SEARO
1545 hrs	Discussion	
1600 hrs	DPRK update	DPRK
1615 hrs	Discussion	
1630 hrs	Sustaining AFP surveillance during NIDs	SEARO
1645 hrs	Discussion	
1700 hrs	National Expert Review Committee (role and lesson learnt)	NPSP/India
1715 hrs	Discussion	
1730 hrs	Close	
1730-1830 hrs	Meeting of TCG Members	
1900 hrs	Social function	

Day 3: Thursday, 31 May 2001

0830-0930 hrs	Certification	
0830 hrs	Caribbean outbreak update and implications on global certification	HQ
0845 hrs	Discussion	
0900 hrs	Update on the certification process	Thailand
0915 hrs	Discussion	
0930 hrs	Implementations of environmental surveillance	ERC, Mumbai
0945 hrs	Discussion	
1000 hrs	4th ICCPE meeting report and timeline to certification	SEARO
1045-1215 hrs	Strengthening delivery of routine EPI vaccines	
1045 hrs	Routine immunization	Sri Lanka
1100 hrs	Routine immunization	Maldives
1115 hrs	Discussion	
1140 hrs	Delivery of routine EPI vaccines: business as unusual	UNICEF
1330-1500 hrs	Meeting of TCG Members	
1330-1500 hrs	Parallel session: Working group on cross-border management	UNICEF/WHO
1530 hrs	Conclusions and recommendations	
1630 hrs	Partner statements	
1700 hrs	Closure	

Annex 2b

AGENDA OF TENTH MEETING OF VIROLOGISTS OF SEAR POLIO LABORATORY NETWORK

Tuesday, 29 May 2001

0800 hrs	Registration	
0815 hrs	Welcome address and introductions	Dr Palitha Abeykoon
0830 hrs	Global Polio Laboratory Network – update	Dr Ray Sanders
0845 hrs	SEAR Polio Laboratory Network status and priorities	Dr Nalini Withana
0900 hrs	Laboratory data management	Ms Nancy Dougherty
0915 hrs	Laboratory cross contamination	Dr Harrie vander Avoort
0930 hrs	Laboratory containment of stocks of wild polioviruses activities in SEAR	Dr Ray Sanders Dr Nalini Withana
0945 hrs	Vaccine derived polioviruses (VDPV- Hispaniola outbreak)	Dr Olen Kew
1030 hrs	Discussion	
1100 hrs	Environmental surveillance	Dr J.M. Deshpande
1115 hrs	Sequencing and molecular epidemiology of wild polioviruses in SEAR	Dr J.M. Deshpande Dr Olen Kew
1145 hrs	Revised Polio Laboratory Manual	Dr Harrie van der Avoort
1245 hrs	Recommendations	

Annex 3

TENTH MEETING OF VIROLOGISTS OF SEAR POLIO LABORATORY NETWORK

Chairman – Dr. Jagadish Deshpande, Enterovirus Research Center, Mumbai

Rapporteur – Dr. T.N. Dhole, Sanjay Gandhi Post Graduate Institute, Lucknow

In his inaugural address, Dr. Palitha Abeykoon, Director HTP, WHO-SEARO highlighted the outstanding performance of the network laboratories in SEAR. The laboratories have made significant progress in molecular epidemiology and laboratory data management and have developed into a technically competent network.

Dr. Ray Sanders reviewed the status of the Global Polio Laboratory Network now consisting of 147 laboratories and discussed the recent changes and developments. This network is the largest public health laboratory network ever established and will serve as a model for other laboratory programmes. Results of >90% of AFP cases are now available within 28 days of receipt of samples in the laboratory for both primary virus isolation and intratypic differentiation (ITD). This is a tremendous achievement. All wild type polioviruses in 2001 will be sequenced and in polio-free regions, supplemental surveillance laboratory activities are being considered.

Dr. Nalini Withana emphasized the achievements made by the SEAR laboratory network. Sixteen laboratories are now fully accredited and these include the Global Specialized Laboratory (GSL) in Mumbai, the three National Polio Laboratories (NPL) doing ITD testing (Lucknow, Chennai and Bandung) and the NPL in Dhaka. The Region has tested 20985 samples. All poliovirus isolates are dispatched for ITD within two weeks of confirmation of virus typing results, ITD results are reported within 28 days, in most cases in less than two weeks, and sequence data on all programmatically important cases are available within 10-14 days of receipt of isolates. Regional workshops, extra-mural and onsite training and laboratory site visits have contributed to the increased efficiency of the network laboratories. WHO is now considering setting up a Measles Laboratory Network in the Region.

Ms Nancy Dougherty presented an update on the polio laboratory information for action (PLIFA) software that was developed by WHO SEARO and HQ to enable the virologists to analyze their data with ease and speed and also to enhance the existing data management system within the SEAR laboratory network. PLIFA has been installed in seven network laboratories outside India.

Dr. Olen Kew presented details of the vaccine-derived polioviruses (VDPV) with special reference to the recent outbreak in Hispaniola. The isolates are unrelated (<85% VP1 sequence identity) to wild type 1 polioviruses and have 97% VP1 sequence similarity to Sabin type 1 OPV strain. Sequence studies of current vaccine-derived isolates from AFP cases from all WHO regions have been initiated

Dr. Deshpande presented the studies on environmental surveillance carried out in carefully selected areas in Mumbai. Wild poliovirus was isolated from sewage samples in the absence of wild virus positive AFP cases and provided evidence of continued silent transmission. Sewage sampling methods will also become useful in evaluating transmission of OPV strains in communities but the methods involved are laborious, expensive and require selection of study areas.

Dr. Deshpande made a comprehensive review of the patterns of wild poliovirus transmission in India. Although multiple lineages of polio 1 circulated in UP, the close similarity of sequences within each lineage indicated that the quality of surveillance was good. Wild poliovirus detected in Kerala was related to virus lineage found in Tamil Nadu in 1999 thus indicating silent transmission. The poliovirus type 1 strains isolated in Karnataka in 2000 had genetic linkage with older strains indicating a reservoir in that state. Two wild poliovirus type 1 strains isolated in Mumbai belonged to the UP lineages, as was also indicated by epidemiological case investigations.

Dr. Harrie van der Avoort highlighted the importance of carrying out laboratory procedures as laid down in the polio laboratory manual. The new manual has been developed with stand-alone sections that can be updated and distributed by e-mail. He discussed in detail the procedures involved in virus isolation typing and intratypic differentiation.

The following recommendations were made:

(1) Regional Laboratory

(1) The national program should review how the data generated by the national laboratories doing ITD testing (Lucknow, Chennai and Bandung) can be incorporated into the data management systems.

(2) All wild poliovirus isolates of the year 2001 should be sequenced within two weeks of availability of ITD results.

(3) Bangladesh should continue to send specimens to CDC for parallel testing for the next six months, through December of 2001.

(4) Specimens from DPR Korea should be sent to Beijing on a regular and frequent basis for confirmation.

(5) Laboratories should maintain equipment and supply inventories.

(6) As recommended in the polio laboratory manual all atypical vaccine-related isolates should be promptly forwarded to a Global Specialized Laboratory within the network.

(2) Lab Data Management

(7) PLIFA (lab data management tool) should be installed and used in all Network Labs in consultation and collaboration with the national AFP surveillance programme.

(8) Any wild poliovirus detected by ITD should be reported immediately to the national AFP surveillance programme, WHO/SEARO and WHO/HQ.

(3) Containment

(9) Funding for regional containment activities should be assessed and budgeted for.

(10) (10) India should plan to start containment activities in the third quarter of 2001.

(11) Serious consideration should be given to disposal of wild-type poliovirus isolates stored in National Polio Laboratories and a plan of action should be developed.

(4) Supplementary surveillance activities

(12) Any poliovirus isolated from supplementary surveillance activities must be sent to a regional reference laboratory for ITD.

(13) All wild virus isolates from supplementary surveillance activities should be reported to the national surveillance programme and the WHO Regional Office immediately, and forwarded for sequence analysis as a matter of urgency.

(14) Mumbai supplementary surveillance activities should continue and be expanded.

(15) Virologists should investigate alternative sample collection and concentration methods.

(5) Polio Lab Manual

(16) All labs should implement procedures described in the new manual, particularly development and use of SOPs.

Annex 4

INDICATORS FOR MONITORING QUALITY OF SIAS

Objective	Indicators	Target	Source of data
Coverage	% of children <5 immunized with OPV	>95%	Reported coverage, Convenience sample survey
	% decline in first time users (zero dose)		Monitors report Process evaluation
Fund Flow	% of district that did not received fund in time	0%(define locally)	SMO, Monitor's report Supervisor's report
	% of states/provinces did not receive in time	0%(define time locally)	SMOs State report
	% of liquidation within 3 months		National reports
	% vaccinators paid for training and NID implementation	100%	Financial report Monitor's & Supervisor's report
Quality of supervision	Average # of posts or teams per supervisor	5	District micro-plan & SMOs
	% of supervisors trained	100%	Monitors report, SMOs
	% of vaccinator teams implementing house to house activity	100%	Process evaluation Monitor's & SMOs report
District level Planning	% of districts with implemented micro-plans	100%	SMOs & Monitor's report
Social Mobilization	% of the families aware of the NIDs	100%	Process evaluation Monitor's report

Objective	Indicators	Target	Source of data
	% of district with implemented social mobilization activities in the micro-plan	100%	SMOs Process evaluation Monitor's report
Training	National orientation and advocacy implemented for senior managers	Yes/No	MO, government's report
	State/province training/orientation of district Officials implemented	Yes/No	RC and SMOs
	% of vaccinators with at least 1/2 day training	100%	Monitor's report Process evaluation
	% of vaccinators with proper knowledge of VVM	100%	Process evaluation Monitor's report
	% of vaccinators filling tally sheet properly	100%	Process evaluation Monitor's & supervisors report
Vaccine distribution and quality	% of district that did not receive vaccines in time	0% (define time locally)	SMOs
	% of immunization Post/teams without adequate quantity of vaccines	0%	Process evaluation Monitor's report
	% of vaccine with VVM stage 2 on the first day of activity	< 10%	Monitors report Process evaluation
Polio status	Wild virus cases	Number	SMOs/DIOs
	Clinically confirmed or compatible cases	Number	SMOs/DIOs