Thematic evaluations in 2001

Eradication of poliomyelitis

Report by the Director-General

1. The Executive Board at its 105th session took cognizance of plans to conduct evaluations of three themes – eradication of poliomyelitis, Integrated Management of Childhood Illness, and WHO’s strategic planning and budgeting process – within the framework of steps towards the integrated plan for monitoring, evaluating and reporting results, requested by the Executive Board in resolution EB103.R6.1

2. The Director-General is pleased to submit herewith for the consideration of the Programme Development Committee of the Executive Board the evaluation of eradication of poliomyelitis.

---

1 See documents EB105/INF.DOC./3 and EB105/2000/REC/2, summary record of the sixth meeting, section 3.
ANNEX

EVALUATION OF WHO’S POLIOMYELITIS ERADICATION INITIATIVE: EXECUTIVE SUMMARY

EVALUATION PROCESS

1. At the request of the Director-General, a wide-ranging review of the Global Polio Eradication Initiative was conducted by an evaluation team which composed members from both outside and within the Organization. All team members participated on a voluntary basis and in their personal capacity.

2. The specific objectives of the evaluation were:

   • to review the achievements to date of the Global Polio Eradication Initiative and its impact;

   • to examine how effectively WHO has contributed to the implementation of the Initiative and to review the effectiveness of technical, managerial, research and administrative support provided by WHO for the Initiative;

   • to assess WHO’s ability to contribute effectively to and/or coordinate global partnerships; and

   • to document lessons learned from the work of the Initiative in order to use them in planning and evaluation of other areas of work.

3. The evaluation was coordinated by WHO. The evaluation team interviewed many individuals who had been influential in the area of eradication of poliomyelitis, in their own right or as representatives of their respective organizations. The team interviewed representatives from the “core partners”, WHO regional offices and Member States. Six meetings were held, five at WHO headquarters and one at PAHO.

4. Other opportunities were used to conduct interviews as appropriate. Members of the evaluation team visited Ethiopia, Pakistan (where they interviewed WHO staff responsible for the eradication of poliomyelitis programme in Afghanistan), Viet Nam and Zimbabwe and met a delegation from Mexico while in Washington DC.

---

1 The full report is available in the meeting room in the language of preparation.
2 Dr Edugie Abebe (Director Public Health, Federal Ministry of Health, Nigeria), Dr Jean-Marc Olivé (Special Project Leader, Vaccines and Biologicals), Mr J.C. Pant (former Secretary of Health, India), Dr David Salisbury CB, Team Leader (Principal Medical Officer, Department of Health, London), Mr William Sergeant (International PolioPlus Committee Chairman, Rotary International, Evanston, Illinois, United States of America), and Dr M. Helmy Wahdan (Special adviser to the Regional Director, Regional Office for the Eastern Mediterranean).
3 Two regional offices were visited, the regional offices for Africa and for the Americas.
ACHIEVEMENTS OF THE GLOBAL POLIO ERADICATION INITIATIVE

5. Considerable progress towards eradication of poliomyelitis has been made since 1988. The number of cases of poliomyelitis has declined since the start of the initiative from an estimated 350,000 cases in 125 countries in 1988, to only 2,880 reported cases in 20 countries at the end of 2000. For 2001, 107 laboratory-confirmed cases of poliomyelitis had been reported as at 28 August.

6. Supplementary immunization in the form of national immunization days have been implemented in all endemic countries. In 2000, a record 550 million children in 82 countries, almost one-tenth of the world’s population, received oral polio vaccine during immunization days. A number of countries have synchronized their immunization days in order to increase their impact and quality.

7. By securing periods of tranquillity, it has been possible to improve vaccine access for children in conflict-affected areas.

8. The addition of “mop-up” activities in response to final cases after immunization days have been successful in interrupting transmission in areas such as the Mekong Delta, the border areas between Iraq, Islamic Republic of Iran, Syrian Arab Republic and Turkey, and the border areas of West African countries.

9. Capacity for disease surveillance has improved through a tremendous emphasis on training and supervision. Since 1988, surveillance that meets certification standard has been achieved in an increasing number of countries. However, some countries have still to achieve a non-polio acute flaccid paralysis rate greater than one per 100,000 children under 15 years of age.

10. The efficiency of surveillance (measured by the percentage of adequate stool specimens) is also increasing and reached 75% in 2000.

11. A global laboratory network of 147 laboratories has been established processing approximately 50,000 stool specimens per year. As of June 2001, 124 (84%) of the laboratories were fully accredited, 12 were provisionally accredited, and 11 had either failed to attain accreditation status or had accreditation pending. All countries have access to WHO-accredited laboratories for testing stool specimens.

WHO’S CONTRIBUTION TO IMPLEMENTATION OF THE GLOBAL POLIO ERADICATION INITIATIVE AND THE EFFECTIVENESS OF TECHNICAL, MANAGERIAL, RESEARCH AND ADMINISTRATIVE SUPPORT PROVIDED BY WHO

12. From the outset until fairly recently, few staff were working on the Initiative. Those employed, mostly professional staff, were part of the Expanded Programme on Immunization or subsequently the Global Programme for Vaccines and Immunization, funded primarily by Rotary International and the Centers for Disease Control and Prevention, Atlanta, Georgia, United States of America. The acceleration of implementation since 1999 has been accompanied by an exponential increase in the number of staff attached to the programme at WHO headquarters, regional offices and especially at country level. Latterly, WHO has made an appropriate investment in management and administrative support for the Initiative. There are now simplified processes for employment of staff, fewer real perceived barriers to mobilizing staff, and the breadth and depth of expertise are far more appropriate...
to the implementation of a global initiative. There is now clarity of leadership, with more appropriate empowerment, that was not apparent for much of the first decade of the programme.

13. Since the start of the Initiative, the direction and management of the eradication of poliomyelitis was manifest through the Technical Consultative Group, the Global Advisory Group (later the Scientific Advisory Group of Experts), the Global Commission for Certification of Eradication, and the Health Assembly. However, none of these bodies actually provided a core of external expertise on scientific and technical concerns and programme implementation that would have given strategic direction to the programme and provided evidence that appropriate expertise was being brought to bear. This is particularly exemplified by the fact that, at this late stage, the scientific basis for terminating immunization is still not resolved. The Technical Consultative Group might have provided such strategic direction, but too often WHO used it for relatively unimportant issues compared with the programme priorities. It met insufficiently frequently and it became progressively larger, increasingly becoming a showcase of the programme, rather than an expert group able to review the strengths and weaknesses of the work.

14. There have been many improvements in both the management of the programme and the delivery of the Initiative. Resource mobilization is still enormously time-consuming and this, along with the other demands on the Coordinator of the Initiative, needs to be reviewed to see whether the tasks can be better managed. The importance of resource mobilization can best be illustrated by the fact that for 2000-2001, 99.7% of the funding for eradication of poliomyelitis came through extrabudgetary channels.

15. The management issues within some regions have mirrored those of headquarters. However, the regions may have been more effective in finding solutions to staffing challenges. In collaboration with headquarters, they have responded to the need for a rapid expansion in the number of consultants and short-term professionals. The regional offices have found different, but appropriate, solutions to the need for expert input into the review of the Initiative’s strategies and activities.

16. For the future, the most important role for headquarters will be achievement of interruption of wild poliovirus transmission in all countries. This will be especially difficult, since those areas that remain endemic are the most difficult ones in which to operate. WHO must also manage the transition from achievement of eradication, to maintenance of eradication, and finally to cessation of immunization.

17. The evaluation team has not reviewed all the basic or operational research conducted since 1988. Such a task would be important to demonstrate the full extent of the gains that have accrued from the Initiative.

Vaccine supply

18. From the start of the Initiative until the mid-1990s, the vaccine industry was able to match the requests for vaccine from both national programmes and UNICEF with little difficulty. However, since the escalation of the programme, particularly with the introduction of national immunization days in large countries such as India, vaccine supply has come under severe pressure. This has led on occasion to the cancellation of immunization days, notably in Nigeria in 2000, after there had been significant investment in training and social mobilization, and expectations of health staff and communities had been raised. Manufacturers were forced to use their reserve stocks to supply campaign needs. This brought into sharp focus the need for accurate and timely forecasting of vaccine requirements, and the need for a closer relationship on supply between WHO and UNICEF. However,
at certain stages of the Initiative the global pressure that would come from national immunization
days, subnational immunization days and acceleration of routine programmes were not appreciated. It
was evident to the evaluation team that, at the beginning of the expansion phase, the matching of
supply and demand by WHO and UNICEF lacked the precision to reflect country needs and the
manufacturers’ capacity to respond. However, recent improvements in forecasting and resource
mobilization and better collaboration with UNICEF on vaccine procurement have gone a considerable
way towards reducing these difficulties.

19. The evaluation team has great concerns about the uncertainties of vaccine requirements in the
future. It is clear that the industry also has considerable anxiety about the requirements to continue
production of oral polio vaccine and in what quantities, and the need to invest in either renewal or
scaled up production of inactivated polio vaccine. It is particularly in this regard that WHO should
work with all of the industry, preventing any suggestion, however unwarranted, that some
manufacturers have been advantaged over others. The evaluation team acknowledges the efforts made
by WHO and UNICEF to improve forecasting and supply; nevertheless greater emphasis should have
been put on supply matters at an earlier stage.

20. The subject of vaccine requirements at the end of the Initiative is likely to be of enormous
importance to both countries and the industry. It is therefore recommended that WHO proceeds with
the greatest possible transparency, involving UNICEF and the global vaccine community at all times.

**Eradication of poliomyelitis in the regions**

21. Programme development for eradication of poliomyelitis in WHO’s regions has been a
continuous process since the beginning of the programme. The Region of the Americas was far ahead
of the other five regions, since in the Americas activities were securely in place before the global
programme started. In 1988 and 1989 the regional committees of the other five regions adopted
resolutions endorsing the eradication target by 2000. The Regional Committee for the Western Pacific
set a target for eradication of poliomyelitis in the Western Pacific Region by 1995. Progress in the
regions has been mixed, due to epidemiological, geographical and other factors. Some constraints
were beyond WHO’s control, such as armed conflicts and the overall development level of Member
States in the regions concerned.

22. During the years 1988-1993, the regional emphasis was on preparing national and regional
plans. All regions established regional technical advisory groups, initiated surveillance, and identified
and supported laboratory networks. During this period, available extrabudgetary funds were minimal.

23. The years 1994-1998 were a period of expansion. Priority was given, for the first time, to
supplementary immunization. The flow of funds and human resources in support of the Initiative was
evident. Senior management in the regions started to direct special attention to the Initiative and
successes were achieved in securing periods of tranquillity in areas affected by armed conflict in order
to ensure full coverage of all children.

24. From 1999 to the present, there has been an acceleration of the programme and greater
assurance of the quality of immunization and surveillance. Funds have been more evident, and
inherent problems in WHO rules and regulations concerning staff recruitment and release of funds for
field activities have been overcome through management decisions by headquarters and regional
offices.
WHO’S CONTRIBUTION TO GLOBAL PARTNERSHIPS FOR ERADICATION OF POLIOMYELITIS

25. Since the Talloires\(^1\) meeting in 1988 that preceded the Forty-first World Health Assembly at which the goal of eradication of poliomyelitis was endorsed (resolution WHA41.28), it was clear that the eradication of poliomyelitis could be achieved only through a multiagency initiative. This would need to bring together United Nations organizations such as WHO and UNICEF, other bodies and foundations (among which Rotary International was the prime partner), national governments, and individual donors. The model of the interagency coordinating committees that had been developed in the Region of the Americas was used in other regions. Country representatives, WHO, UNICEF, and the funding agencies reviewed the programme’s achievements and obstacles, and addressed funding needs. As the Initiative progressed, each region and many countries developed interagency coordinating committees or their equivalents. The nearest global equivalent to such a body has been the Meeting of Interested Parties at which the Initiatives progress has been reported and funding gaps identified.

26. At a more practical level, the Initiative has been characterized by an ever-shifting series of partnerships within which the links among WHO, UNICEF, Rotary International and the Centers for Disease Control and Prevention have been the most constant. However, even this core partnership has waxed and waned. There was an attempt by Rotary International to formalize the partnership with regular senior level meetings involving the four organizations, but, despite its perceived value, it was not felt to be committed to by UNICEF at the level required.

27. It has been clear from the interviews with many individuals that the management of the partnership has been challenging. Because there has sometimes been a lack of clarity in roles, there has been tension among the partners: for example, between technical bodies (where traditionally WHO has taken the lead) and over the procurement responsibilities of UNICEF (in which WHO has increasingly played an important part). Partnerships do not manage themselves. In the private sector, companies may have “alliance managers”, which is a recognized profession. It was suggested to the team that WHO’s global managers should act more like alliance managers and have their role as partner managers clearly indicated in the roles and responsibilities of their position. One area where this could have been most problematic – but actually appeared not to have been – was at local level. Here, for the greater part, there has been excellent collaboration among partners.

LESSONS LEARNED FROM ERADICATION OF POLIOMYELITIS ACTIVITIES

28. It would be desirable for WHO to ensure that the technical, managerial, and resource aspects of a global health initiative have been examined carefully before a resolution is sought from the Health Assembly. Although thorough study would certainly have been helpful the evaluation team recognized that, in some cases, there may be insufficient time available for it. The implications of a global health initiative should be worked out in detail and put forward to the Health Assembly at the same time as the Initiative is presented.

29. It has been demonstrated without doubt that the Initiative has contributed significantly to development of the Expanded Programme on Immunization. Nevertheless, there may have been

---

\(^1\) Meeting in Talloires, France, 10-12 March 1988, sponsored by the Task Force for Child Survival Development, Atlanta, Georgia, United States of America.
missed opportunities in some countries where supplementary immunization activities, surveillance, training and social mobilization for poliomyelitis could have led to an even greater contribution. This is particularly important where routine immunization coverage is very low and in areas covered for the first time through national immunization days. However, the team acknowledged that multiantigen immunization campaigns are more complex to implement, require more resources, and may not be suitable for all circumstances.

30. The goal of the Initiative can only be achieved through interagency coordination. There have been problems within the partnership supporting the Initiative, and some could have been solved through preparation of memoranda of understanding spelling out the areas of responsibility of each agency. The partnership would have also greatly benefited from having an executive management group of senior staff of partner agencies who would meet on a regular basis to ensure that everyone was fully informed of progress, to establish operating policy, and to resolve any conflicts that may have arisen.

31. It is essential to ensure effective leadership of such global initiatives. Appropriate leaders should be identified and engaged from the early stages of the Initiative. In addition to ensuring this at global and regional levels, it is equally important to have such leadership at national and even subnational levels, where such initiatives need to be harmonized with local culture and lifestyles.

32. Global health initiatives will never be started and completed in one sweep. It is therefore essential to identify milestones in such long-term initiatives. These should be determined well in advance, with specific targets and indicators of achievement. This will also facilitate mobilization of specific resources in a timely manner. The team acknowledged that efforts had been made to use such targets and indicators in the Initiative.

33. There is a need carefully to consider converting this successful initiative on its completion into other initiatives. This should be kept in mind while planning health initiatives in order to achieve maximum cost-effectiveness in the long run.

**CHALLENGES TO COMPLETION**

34. The main challenges that hinder the timely achievement of the goal of eradication of poliomyelitis include funding, particularly the shortfall of US$ 400 million, a shortfall in oral polio vaccine supply, and the possibility of fatigue among partners, national authorities and local level workers, especially in countries where circulation of wild polioviruses has been interrupted. Sustaining surveillance will also be of great importance in all countries. Containment of wild and vaccine-derived polioviruses will need to be addressed worldwide. The possibility of reversion of vaccine-derived strains to neurovirulent forms brings urgency to the task of completing the interruption of transmission and implementing a strategy for the cessation of immunization.

35. There are some challenges specific to endemic countries. These include problems of access and quality of service provision, especially where routine infrastructure of the Expanded Programme on Immunization is lacking. Maintaining political commitment and leadership will be paramount.

36. For WHO, one of the main challenges will be the maintenance, at least until 2010, of sufficient infrastructure in the absence of disease in order to be able to carry out posteradication activities, notably those involved in stopping immunization.
PRINCIPAL RECOMMENDATIONS\(^1\)

Management

1. Global targets should be based on a balance of reasonable attainability with a sense of urgency that maintains momentum. The lack of achievement of mid-term goals meant that some countries paced their eradication activities to 2000 with little pressure to achieve elimination earlier. This has contributed to the global slippage in achieving the targets.

2. Future initiatives should be launched after appropriate advance study to the extent practicable. Most important must be an exercise to identify the human and financial resources ahead of commitment at the Health Assembly, also drawing attention to the constraints, so that the global community is able to make a balanced judgement.

3. Any future initiative such as the Global Polio Eradication Initiative should have a small, independent expert group that can review in a timely fashion the strategic and scientific issues as they arise. It may not be too late for such a group to be formed for the Initiative.

6. For any future initiative on the scale of the Global Polio Eradication Initiative, a leader of sufficient calibre should be identified as early as possible. Such individuals should have senior management experience as well as experience in international health work. Once appointed, they should be empowered within the Organization to be able to influence resource allocation and priority-setting.

7. In order to manage better the transition from achievement of eradication to maintenance of eradication, and then to cessation of immunization, WHO should prepare and share plans, since it is clear that early expectations of a rapid end to poliomyelitis immunization after eradication are proving unlikely.

8. At the outset of any global initiative a responsible officer for resource mobilization should be appointed within the programme concerned.

Technical

15. Open-handed sharing among the specialist laboratories of the few positive samples of wild polioviruses that are still detected is needed; this is particularly the case for samples of revertant strains.

16. In order to obtain the greatest yield from investment in the Initiative, surveillance for poliomyelitis should be linked to surveillance for other diseases, thereby strengthening them for the future.

17. The impact of future eradication initiatives on health services should be fully acknowledged and appropriate indicators and outcome measures incorporated into the process from the outset.

---

\(^1\) Numbers correspond to numbering in full report.
18. Supplementary poliomyelitis immunization through national immunization days should be planned in such a way as to be supportive of other activities of the Expanded Programme on Immunization and to strengthen other health services.

19. WHO should explore carefully all options for the end-game of eradication of poliomyelitis, and have such discussions with full external consultation.

**Vaccine supply**

9. In any future similar initiative, supply needs should be identified and resourced from a very early stage and relationships on procurement clarified.

10. The roles and responsibilities of International Federation of Pharmaceutical Manufacturers Associations representatives and representatives of manufacturers at meetings such as those of the Scientific Advisory Group of Experts, need to be defined.

11. WHO should proceed in any discussions with the vaccine industry with the greatest possible transparency, involving UNICEF and the global vaccine-using community at all times.

**Partnership**

12. When global initiatives such as eradication of poliomyelitis are being developed, the working relationships among agencies should be clarified by a document (for example, a memorandum of understanding) that identifies the roles and responsibilities of each partner. Such a document can be adapted as circumstances change and does not need to be inhibitory or proscriptive. Expertise in alliance or partnership management would facilitate effective working between agencies.

13. Future WHO health initiatives should facilitate interagency coordination mechanisms at headquarters, regional and country levels.

14. In any similar initiative in future, that involves multi-agency collaborative working, specific expertise should be addressed to the management of partnerships, rather than assuming that this will happen naturally.

**Evaluation process**

4. Should a further evaluation be set up for an initiative as extensive in time and breadth as the eradication of poliomyelitis, either there should be more individuals given more time, or alternatively, there should be a narrower focus.

5. For future evaluations, WHO staff members should serve as the secretariat, supporting and contributing to the review, but independent of its conclusions.