



*executive committee of
the directing council*

PAN AMERICAN
HEALTH
ORGANIZATION

*working party of
the regional committee*

WORLD
HEALTH
ORGANIZATION



86th Meeting
Washington, D.C.
June-July 1981

Provisional Agenda Item 5

CE86/8 (Eng.)
3 April 1981
ORIGINAL: ENGLISH

CAPITALIZATION OF THE REVOLVING FUND OF THE EXPANDED PROGRAM ON
IMMUNIZATION

This Report is presented to the 86th Meeting of the Executive Committee in response to Resolution XV of the XXVII Meeting of the Directing Council. It summarizes the progress of the various components of the Expanded Program on Immunization (EPI) in the Americas and focuses on the operations of the EPI Revolving Fund for the purchase of vaccines and related supplies.

Alternatives for full capitalization of the Fund are presented and a short-term alternative is proposed to permit continued operation of the Fund while its full capitalization is being sought.

Contents

	<u>Page</u>
INTRODUCTION	2
SUMMARY OF PROGRESS TO DATE	2
1. Training	3
2. Development and Testing of Cold Chain Equipment	3
3. Epidemiological Surveillance and Program Evaluation	4
4. Dissemination and Exchange of Information	4
REVOLVING FUND FOR THE PURCHASE OF VACCINES AND RELATED SUPPLIES	5
1. Background	5
2. Summary of Operations	6
3. Procurement and Delivery	6
4. Evaluation of Revolving Fund Procedures: Benefits and Problems	8
5. Alternatives for Full Capitalization	11
6. Short-term Alternative	12

INTRODUCTION

Regional program policies and strategies for the Expanded Program on Immunization (EPI) were approved in Resolution XXVII of the XXV Meeting of the Directing Council in September 1977, which resolution also endorses the global policies approved by Resolution WHA30.53, adopted by the Thirtieth World Health Assembly in May 1977.

These resolutions reinforce recommendations stated in the Ten-year Health Plan for the Americas, and recognize that immunization activities are one of the main components of the extension of coverage of health services and the entry point for primary health care.

The Program's long-term objectives are to:

- Reduce morbidity and mortality from diphtheria, pertussis, tetanus, measles, poliomyelitis and tuberculosis by providing immunization against these diseases for every child in the world by 1990 (other selected diseases may be included when and where applicable);
- Promote countries' self-reliance in the delivery of immunization services within the context of comprehensive health services;
- Promote regional self-reliance in matters of vaccine quality control and vaccine production.

In order to strengthen PAHO technical cooperation to Member Countries in their efforts to reach the long-term objectives of the Program, the Organization developed a Plan of Action in 1978, which is based on five areas of concentration:

- Training activities;
- Development and testing of suitable cold chain equipment;
- Epidemiological surveillance and program evaluation;
- Dissemination and exchange of information;
- Establishment and operation of a revolving fund to purchase vaccines and related supplies.

SUMMARY OF PROGRESS TO DATE

A comprehensive report on the EPI in the Americas was given in Document CD27/16, presented to the XXVII Meeting of the Directing Council in 1980.

1. Training

During the last three years all countries and territories have participated in the PAHO-sponsored regional training workshops on planning, management and evaluation of immunization programs. By May 1981, 18 countries and territories had already organized and conducted national training workshops on the EPI, and most of them had already started multiplication of these workshops at the local level of their health delivery systems.

EPI training materials have been included in the PAHO Expanded Program on Textbooks and Educational Materials and are being included in the regular curricula of schools of public health throughout Latin America.

2. Development and Testing of Cold Chain Equipment

The cold chain regional focal point, which was requested by Resolution XXI and XXVI Meeting of the Directing Council, was established in an agreement with the Government of Colombia and the Centro de Investigaciones Multidisciplinarias para el Desarrollo Rural (CIMDER) at the University del Valle in Colombia. A full report on the activities of this Center is available from the Secretariat. Major areas of activities include:

- An environmental testing chamber has been constructed and tested and test results demonstrate that the chamber meets WHO/PAHO performance criteria; the environmental testing chamber will permit CIMDER to become a global reference center for testing of cold chain equipment;
- Prototype containers of various sizes for the storage and transportation of vaccines are being manufactured in Latin America for use with the EPI programs of the Region; the prototype containers are being tested for their performance characteristics and robustness during the second quarter of 1981.

On the management side of the cold chain, the EPI is currently evaluating a management tool for the identification of good and poor cold chain systems. The tool being evaluated is a chemical indicator which records the handling of vaccine as a function of temperature over time. The indicator is being field tested in several countries of the Region and preliminary results are expected to be available during the last quarter of 1981.

3. Epidemiological Surveillance and Program Evaluation

Development of national information systems continues to receive priority within EPI. The primary focus of the EPI has been the development of EPI surveillance guidelines to strengthen national surveillance systems. These guidelines were prepared in 1980 and distributed to EPI national managers in the second quarter of 1981.

With the training component of the program nearing its target, a shift of emphasis toward program evaluation has occurred. As of April 1981, PAHO had collaborated with national authorities in three national program evaluations.

Using a multidisciplinary group composed of health personnel from the national level who have responsibility for programs related to the implementation of the EPI, Colombia, Bolivia and Argentina have thoroughly evaluated the implementation of their EPI activities.

The purpose of these multidisciplinary evaluations is to examine all aspects of program implementation and its relationship with other components of primary health care at all levels of the health system. With the identification of successful and problem areas, the program evaluation can then formulate recommendations with a chronogram for their implementation.

4. Dissemination and Exchange of Information

A series of data information sheets on the availability of cold chain supplies is periodically distributed to all countries, as are scientific articles relevant to the implementation of the program.

The EPI Newsletter, which first appeared in May 1979, is published bi-monthly and distributed throughout the Hemisphere to health personnel involved in the delivery of immunization services at all levels. This PAHO publication facilitates the exchange of ideas and information concerning immunization programs in the Region in order to promote greater knowledge of the problems faced and their possible solution.

Finally, the First Biannual Meeting of the EPI National Managers will take place in Quito, Ecuador, from 18 to 22 May 1981. The linkages of EPI with other primary health care components will be discussed and plans of action, with quantitative biannual goals and objectives for program implementation, will be defined during this meeting.

REVOLVING FUND FOR THE PURCHASE OF VACCINES AND RELATED SUPPLIES

1. Background

The establishment of the EPI Revolving Fund for the purchase of vaccines was first authorized by the XXV Meeting of the Directing Council (1977) in Resolution XXVII. This resolution called for the capitalization of the Fund at a level of US\$4 million. This high capitalization requirement called for a phased approach in reaching the full amount necessary for smooth, uninterrupted operations.

The EPI Revolving Fund was established with the following objectives:

- To enable the Member Countries to procure required vaccines and related supplies in an orderly and continuous manner, thus avoiding disruption in their programming due to shortage of vaccines or lack of immediate funds for their procurement;
- To permit countries to use local currencies instead of US dollars to reimburse their vaccine purchases, thus avoiding delays and losses in trying to exchange their currencies for US dollars;
- To consolidate the vaccine requirements of all Revolving Fund members, resulting in economies of scale and enabling the Fund to provide vaccines at low prices;
- To improve delivery and receipt of vaccines, thus minimizing delays and losses, especially for small countries and territories in the Region;
- To enable Member Countries to program their activities more effectively due to the constant flow of supplies that can be achieved with the continuous availability of funds in the Revolving Fund;
- To assure that members of the Fund will be supplied with good quality vaccines that meet PAHO/WHO standards;
- To allow urgent orders to be placed and delivered on short notice by means of already established contracts with vaccine suppliers.

The XX Pan American Sanitary Conference (1978) authorized the Director to initiate the capitalization of the EPI Revolving Fund with an amount of US\$1 million. Resolution XXI of the XXVI Meeting of the Directing Council (1979) and Resolution XV of the XXVIII Meeting of the Directing Council (1980) increased the amount of capitalization from US\$1 million to \$1.8 million, and instructed the Director to seek alternative methods to reach the \$4 million level of capitalization necessary for the EPI Revolving Fund to operate smoothly.

In addition to the increased capitalization authorized by the XXVI Meeting of the Directing Council (1979), the Government of the Netherlands donated US\$500,000 and the Government of Barbados donated US\$1,000, bringing the amount of capitalization to US\$2.301 million.

2. Summary of Operations

Since the beginning of the operations of the EPI Revolving Fund in 1979, its membership has gradually increased to include most of the countries and territories in the Region. During the first year of operations, 21 countries and territories elected to procure their EPI vaccines through the Revolving Fund. In 1980, nine new members joined the Revolving Fund, bringing the membership to 30.

While the membership has increased, the EPI Revolving Fund has yet to reach the US\$4 million level of capitalization originally conceived as necessary for its smooth operation. The increases to the initial amount of capitalization of the EPI Revolving Fund were of major importance in permitting the Fund to purchase the vaccine requirements of all participating countries. Advance payments to the Fund made by Argentina, Colombia, and Peru also contributed to its operation in the first two years.

The expenditures for vaccines made by the Revolving Fund during 1980 were approximately US\$3.3 million, representing an increase of 43.5 per cent over the 1979 expenditures of \$2.3 million.

The EPI Revolving Fund was established with the idea that it could also cover the procurement of related supplies, such as needles, syringes, and cold chain equipment. However, because of undercapitalization of the Revolving Fund, the EPI has had to limit its procurement of cold chain equipment.

3. Procurement and Delivery

Members of the EPI Revolving Fund submit estimates of their annual requirements for EPI vaccines six months in advance of the calendar year.

Countries may update quarterly estimates by submitting revisions to their original submission. These estimates are stated in terms of quarterly requirements, which subsequently form the basis for quarterly purchases of vaccines.

Based on estimated annual quantities, PAHO draws up contracts with vaccine suppliers for the forthcoming year. These contracts are let on a competitive basis by soliciting bids from suppliers on the worldwide market. Contracts are awarded to the lowest bidder, taking into account the cost of transportation and the capability to meet WHO specifications and to make timely deliveries. These contracts provide specifications, delivery terms and prices to cover the quarterly placement of individual purchase orders.

Quality control procedures under PAHO EPI contracts are in general those in effect for WHO and UNICEF procurements. Suppliers provide protocols to PAHO of each batch from which shipments are made. PAHO Laboratory Services reviews these protocols and corresponds directly with each vaccine supplier as appropriate in order to clarify protocols and assure that all required test results are reported. Countries are encouraged to conduct independent tests on samples of vaccines delivered under EPI contracts. Test results may be sent to PAHO for comparison with batch protocols furnished by the suppliers.

PAHO places individual purchase orders on a schedule to provide for delivery of the required vaccines during the last two months of the quarter, unless otherwise requested by the countries. The recipient country is notified by telex by the supplier and PAHO as to the airway bill number and flight details regarding the arrival of each shipment. If there are delays in transit, PAHO monitors the shipment to assure proper refrigeration during the delay and keeps the recipient country informed of changes in the delivery schedule.

PAHO invoices the Member Country as soon as all charges for a procurement of vaccine are determined, i.e., cost of the vaccine, service charge, packing, freight, insurance, etc. Member Countries are required to reimburse the Revolving Fund within a 60-day period after receipt of the invoice. Payment within this time limit is necessary in order to maintain eligibility for continued use of the Fund. Generally, reimbursement may be made in the currency of the country.

PAHO also purchases cold chain equipment, syringes, needles and other materials required in connection with the EPI. Due to the limited capitalization of the Fund, countries must deposit funds for these items before orders are placed.

4. Evaluation of Revolving Fund Procedures: Benefits and Problems

Prior to the establishment of the Revolving Fund, PAHO was unable to coordinate vaccine procurements, and no purchase action could be taken until funds were deposited for each request. Each order was of necessity treated as a separate transaction requiring the solicitation of bids and negotiation of delivery and other terms and conditions. As a result there was considerable repetitive effort and deliveries were unnecessarily delayed. In cases of urgent requirements, orders were placed solely on the basis of the supplier's ability to meet the delivery schedule, with no regard to price.

The EPI Revolving Fund has facilitated the consolidation of requirements and the orderly scheduling and placement of purchase orders. This in turn has made possible the establishment of long-term contracts which have produced favorable prices and a ready supply of quality vaccines. Generally, the prices paid for EPI vaccines during the first two years of the program have remained stable, and in some instances have declined.

New contracts were negotiated with suppliers for the purchase of the EPI vaccines during the period June 1980-July 1981. The price of measles vaccine, which tends to be the most costly of the four EPI vaccines (measles, polio, DPT, and BCG), registered an average decrease of 18.2 per cent per single-dose vial. An even greater price decrease occurred for measles vaccine in 10-dose vials (29.6 per cent lower than in 1979).

The largest increase in price per dose was recorded for BCG vaccine, which rose an average of 22 per cent per dose. Overall, the average cost of EPI vaccines in 1980 increased by only 3.73 per cent over the previous year. If the decrease in the price of measles vaccine is excluded, the average cost of all the other EPI vaccines increased by 11.03 per cent over that of 1979.

An unexpected benefit of the EPI Revolving Fund has been the closer relationship which PAHO has been able to develop with the industry as a result of being in a position to contract for large-scale requirements over long periods of time. From the beginning, there has been a high level of interest in the EPI contracts on the part of major vaccines suppliers. No major supplier has declined to submit offers in response to PAHO's invitation to bid. High-level personnel from most companies have visited PAHO to express their continuing interest in supplying vaccines for the program. The industry particularly welcomes the fact that the annual contracts enable them to plan their production more efficiently and to prepackage vaccines in anticipation of orders. Suppliers

concede that the profit margins on EPI vaccine sales are small, but they also acknowledge the benefits of reasonably firm annual sales and the prestige which comes with being a supplier to PAHO/WHO.

Another benefit of the Revolving Fund is greatly improved control of vaccine shipments. The procurement process is a failure if the vaccine does not get to the destination on time and in the proper condition. The Revolving Fund procedures make possible a much better visibility and control of the delivery process. Repetitive dealings with the EPI contractors have led to improved reporting and monitoring of shipments and, in some cases, improvements in shipping containers. There are still problems with vaccine shipments, but under the Revolving Fund program shipments are better accounted for, deliveries are in most cases made during the required quarter, and vaccine losses in transit are virtually nonexistent.

Table 1 shows the number of orders placed for each vaccine and cold chain item, and the corresponding dollar value, for the years 1979 and 1980.

As indicated in the table, a total of 536 orders, valued at US\$6,424,421, were placed during this period. Approximately 85 per cent of these orders were delivered to the requesting Member Countries within the required quarter.

Table 1

EPI REVOLVING FUND PROCUREMENTS: 1979-1980

Item	No. of Orders	Value (US\$)
Polio Vaccine	106	1,039,878
Measles Vaccine	102	3,008,762
BCG Vaccine	80	751,134
DPT Vaccine	95	940,482
DT Vaccine	22	30,600
TT Vaccine	81	174,225
Other Vaccines	28	237,407
Cold Chain Equipment	22	241,933
TOTAL	536	6,424,421

Three main problems have been identified in operating the EPI Revolving Fund during the last two years:

- a) The combination of an increase in the volume of operations and limited capitalization of the EPI Revolving Fund resulted in delays in placing orders with suppliers while waiting for funds to become available. This had the following effects:
 - Inability of the EPI Revolving Fund to place purchase orders in a timely manner;
 - Countries were not able to use the EPI Revolving Fund for the procurement of cold chain equipment as had originally been planned;
 - Some countries with large requirements were asked to deposit funds in advance for procurement of their vaccines, with the subsequent administrative difficulties entailed at the national level.

- b) Members have not always observed the 60-day limit on reimbursing the EPI Revolving Fund for their purchases, as stated in the guidelines for the Fund. The delays in reimbursement have varied from 90 days to six months or more, and had the following effects:
 - Normal operations of the EPI Revolving Fund could not be programmed because of large amounts of outstanding reimbursements, and placement of orders was delayed until funds become available. These delays were from 3 to 8 weeks;
 - Because certain countries were late in making reimbursements, the resulting delays may on some occasions have disrupted their operations.

- c) Cancellation of orders already placed with the EPI Revolving Fund suppliers, coupled with the lack of a strong commitment of some countries to remain as participants after they have indicated they would procure their vaccine requirements through the EPI Revolving Fund: this particular problem may reduce the ability of PAHO to serve the needs of the participating countries.

5. Alternatives for Full Capitalization

As indicated in Document CD25/14 submitted to the XXV Meeting of the Directing Council, the estimated requirement for capitalization of the Revolving Fund was established at US\$4 million. By Resolution XVI of the XX Pan American Sanitary Conference and Resolution XVI of the XXVI Meeting of the Directing Council, \$1.8 million was made available towards the capitalization of the Revolving Fund. In addition, efforts were made to seek additional funds over the \$1.8 million made available by the Governing Bodies, for full capitalization of the Revolving Fund. All Member Countries, as well as many other extrabudgetary sources, were contacted. These efforts were not successful except for a US\$500,000 grant from the Government of the Netherlands and US\$1,000 from the Government of Barbados. Consequently, there still remains a short-fall of \$1.7 million for full capitalization of the Revolving Fund. Several alternatives for full capitalization have been explored and are summarized below:

a) Financing from Multilateral and Bilateral Financial Institutions

One alternative would be to secure additional financing from such institutions as the Inter-American Development Bank, the World Bank, or donor agencies. The experience gathered in the initial efforts to secure additional capitalization for the Fund indicates that success from this alternative is limited or doubtful. A major impediment appears to be the fact that the funds are not to be expended directly for a health program, but merely to be put into a fund to finance programs which are paid for by the governments themselves. Nevertheless, efforts to secure such financing are continuing, and contacts with the appropriate banks and agencies are in process.

b) Regular Budget

Another alternative is the inclusion in the regular budget of an amount to be used for the additional capitalization requirements. Considering the inflationary trends of program costs and the unfunded requirements of US\$27,436,400 submitted by the Member Governments for the 1982-1983 financial period, it appears that the required additional funds for full capitalization should be secured from sources other than the regular budget.

c) Holding Account

The Holding Account was established in Resolution XVI of the XX Pan American Sanitary Conference to include any excess income over regular budget expenditures at the end of a financial period, after replenishing the Working Capital Fund for any drawings. By Resolution XVI of the XXVI Meeting of the Directing Council, an amount of US\$800,000 was transferred from this account to the EPI Revolving Fund. If additional funds become available in the account, the Directing Council may direct that they be transferred to the EPI Revolving Fund. Considering the draw down on the Working Capital Fund of US\$768,000 in 1979 and the delay in receiving quota contributions, there is no assurance that funds would be available from this source.

6. Short-term Alternative

While the preceding alternatives should be pursued, it is recognized that they will not solve the current short-fall of full capitalization and its adverse impact on current Fund operations. Therefore, it is proposed that the PAHO Working Capital Fund be used as a short-term alternative to permit continued operation of the Fund while its full capitalization is being sought.

The XX Pan American Sanitary Conference authorized a level of US\$11 million for the PAHO Working Capital Fund, to be used:

- To subsidize day-to-day operations while awaiting receipt of quota contributions;
- To cover advances made to staff in accordance with the Organization's rules and regulations;
- To cover pending reimbursement from extrabudgetary agencies for expenditures on projects to be financed by those agencies.

The use of the Working Capital Fund fluctuates during the year according to the needs to fund the items listed above. When funds are not in use, they are invested to secure interest income for the Organization.

PAHO Financial Rules require that no obligation be incurred unless funds are available. Consequently, when the US\$2.301 million capital of the Revolving Fund is committed for pending purchase orders, additional purchase orders cannot be processed until some capital is freed by reimbursements from the governments.

Since funds are periodically available in the Working Capital Fund during the year, it is considered feasible to utilize them to temporarily cover the obligations for purchase orders which cannot be accommodated within the US\$2.301 million capital of the Fund. This in essence would be a temporary loan from the Working Capital Fund. Such a temporary loan would be subject to the availability of funds in the WCF. There would be a loss of interest income on the funds involved.

The adoption of this proposal would not result in an immediate requirement to use Working Capital Fund funds and, though this requirement would vary according to the need for funds to support purchases, there would be an eventual reimbursement through payments by the governments.

In summary, it is considered feasible to use funds from the Working Capital Fund as a temporary loan to allow the obligation and processing of purchase orders which cannot be accommodated within the current capitalization of the EPI Revolving Fund.