REPORT

WORKSHOP FOR MANAGERS OF THE EXPANDED PROGRAMME ON IMMUNIZATION

Manila, Philippines
28 July to 1 August 1986

Manila, Philippines
January 1987
WORKSHOP FOR MANAGERS OF THE EXPANDED PROGRAMME ON IMMUNIZATION

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OF THE

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NOTE

The views expressed in this report are those of the participants in the Workshop for Managers of the Expanded Programme on Immunization and do not necessarily reflect the policies of the Organization.

This report has been prepared by the Regional Office for the Western Pacific of the World Health Organization for governments of Member States in the Region and for the participants in the Workshop for Managers of the Expanded Programme on Immunization held in Manila, Philippines, from 28 July to 1 August 1986.
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1. INTRODUCTION

The Workshop of Managers of the Expanded Programme on Immunization (EPI) was held in Manila, Philippines, from 28 July to 1 August 1986. Twenty-six participants from nineteen countries of the WHO Western Pacific Region attended as well as fourteen observers and sixteen secretariat members. (See agenda of the workshop in Annex 1 and list of participants in Annex 2).

The overall objective of the workshop was to convene a meeting of national managers of the expanded programme on immunization in the Western Pacific Region in order to:

1. review the progress and accomplishments on a country-by-country basis;

2. identify the difficulties and constraints of countries in the implementation of the expanded programme on immunization;

3. have in-depth discussion on the strategies, resources, both human and financial required, and other actions necessary to accelerate the EPI programme in the Region with a view to attainment of the goals set by the World Health Assembly;

4. based on the above three objectives, prepare, in collaboration with the external agencies, outline or proposed national EPI plans of action to meet the goals set by WHO, UNICEF and the government concerned.

The workshop was conducted in plenary and group sessions. During the plenary sessions, scientific papers were presented and discussed. During the group work, participants prepared plans of operation for EPI acceleration for 1987-1990.

2. SUMMARY OF PROCEEDINGS

2.1 Opening remarks

The participants were welcomed by Dr Hiroshi Nakajima, WHO Regional Director for the Western Pacific Region, who stressed the need for more sustained efforts, particularly in accelerating and maintaining the programme to meet the targets set in the Seventh General Programme of Work. By the end of the decade, significant reductions would have been achieved in morbidity and mortality from EPI target diseases and immunization against those diseases would have been made available for all children.

Dr Mostefaoui, UNICEF Regional Director for East Asia and Pakistan, asserted that the field of immunization would continue to receive the highest priority from UNICEF. It was fitting that UNICEF and WHO should jointly support the governments in achieving their immunization goals. He concluded by expressing the hope that the workshop would boost programme activities towards the goal of providing immunization for all children of the world (UCI) by 1990.
2.2 Global overview

In his paper presented in the plenary, Dr Henderson, EPI Global Director, reviewed the enormous progress made by the expanded programme on immunization since its inception.

From coverage levels in developing countries which were less than 5% when the programme was established by the World Health Assembly in 1974, coverage for a third dose of DPT or poliomyelitis vaccines has risen to some 50% at present. With the high drop-out rates known to persist in many programmes, coverage with a first dose of these vaccines is estimated to be between 60% and 70%. First dose coverage provides a measure of the current delivery capacity of the health system. It is estimated that over 800 000 deaths per year from measles, neonatal tetanus and pertussis are currently being prevented by the programme.

It comes as no surprise that the American and European Regions, with the best developed health infrastructures, have achieved the highest coverage levels. The Western Pacific Region also makes an excellent showing. The major difficulties are being experienced in the African Region. Low measles immunization coverage is being reported from the South-East Asia Region, where several large countries, including India, are only now introducing this vaccine into their routine programmes.

Global surveillance still remains too weak to provide reliable documentation of recent programme impact. Not only is under-reporting a problem, but delays in reporting cause a false decline in the figures for the most recent years. One disease for which the decline in global incidence is undoubtedly real is poliomyelitis. Quite dramatic changes are taking place in the Region of the Americas, and these are influencing the global trends. Progress has been so encouraging in the Americas, in fact, that the goal of poliomyelitis elimination by the year 1990 has been adopted for the western hemisphere. A 1990 elimination goal for poliomyelitis was also set for Europe during a 1980 immunization conference.

Programme success, however, is only one part of the story. The other part, presenting an immediate challenge, is what remains to be done to meet the 1990 goal of universal child immunization. There is still a long way to go. Three-and-a-half million children still die needlessly each year from EPI target diseases, and poliomyelitis continues to paralyze over a quarter of a million others.

Acceleration of existing efforts constitutes the overriding priority at present, using approaches that differ according to the requirements of individual programmes. Common themes in many will be improving current services and increasing the participation of communities in the services. These themes are central to strengthening the health infrastructure as a whole. A focus on improving the quality of a discreet health service such as immunization can also help to improve the quality and efficiency of other services. Communities which are engaged in the provision of immunization services are also likely to become engaged in other services. While addressing the most immediate problems, these approaches can also contribute to long-term solutions.
Social mobilization provides the driving force for acceleration. United Nations Children's Fund has been a leader in this field and continues to teach valuable lessons. Of the actions endorsed in May 1986 by the World Health Assembly to accelerate progress, three address social mobilization issues:

1. Promote the achievement of the 1990 immunization goal at national and international levels through collaboration among ministries, organizations and individuals in both the public and private sectors.

2. Adopt a mix of complementary strategies for programme acceleration.

3. Ensure that rapid increases in coverage can be sustained through mechanisms which strengthen the delivery of other primary health care interventions.

From a technical viewpoint, four additional recommendations can be made:

- provide immunization at every contact point;
- reduce drop-out rates between first and last immunizations;
- improve immunization services to the disadvantaged in urban areas; and
- increase priority for the control of measles, poliomyelitis and neonatal tetanus.

Specific disease reduction targets need to be set for the EPI target diseases, with emphasis on measles, poliomyelitis and neonatal tetanus; the American and European Regions have set the goal of poliomyelitis elimination by 1990. Several countries in the Western Pacific Region have already achieved this goal, and these should be a first step toward elimination in the Region. However, if poliomyelitis provides a good opportunity for elimination, measles will be far more difficult. As for neonatal tetanus, many countries in the Region still do not report it separately. A great deal of work then remains to be done.

Social mobilization is intimately linked with improving health services delivery. One cannot afford to motivate the community to seek immunization services without first ensuring that the health services are able to respond to the demand that has been created. However, social mobilization is by no means to be reserved until the time when health services are satisfactory. The political support, and pressure, which can be generated through social mobilization efforts may be one of the most effective catalysts for motivating health staff to improve their services. No programme can succeed without attention to both of these important ingredients.

2.3 Universal child immunization (UCI)

Mr Mostefaoui, UNICEF Regional Director for East Asia and Pakistan, presented the above topic. Provision of management support remains a high priority objective for WHO and UNICEF as underlined in the joint statement on planning principles for accelerated immunization activities.
Following the establishment of the expanded programme on immunization by the 1974 World Health Assembly, UNICEF has also embraced the programme's aim of providing immunization against the six target diseases for all the world's children by 1990 and the two organizations have been working in tandem to reach that goal. The goal is not solely the single powered accomplishment of immunizing all children by 1990, valuable as that achievement will be, but to achieve - as a second dimension or power - a sustained system of immunization so that all children will henceforth be immunized as a matter of routine.

On the occasion of the Fortieth Anniversary celebrations of the United Nations in October 1985, heads of state and government signed a declaration that they were "resolved to ... achieve the United Nations goal of Universal Child Immunization by 1990 ... an essential step in the establishment of sustainable primary health care services ..." Such a commitment of political will by those in power, backed up by effective action on their part, is seen as a vital component of any viable and comprehensive programme, and the cornerstone in the success of any development effort.

Mr Mostefaoui said that political will, social mobilization, technology, management and resources are the five issues that run like a thread through any discussion on the prospects for universal immunization. As far as resources are concerned, considerable international support, both in cash and kind, has been forthcoming from governments such as Canada, Italy and the United States of America, and from non-governmental organizations such as Rotary International which has pledged up to $120 million to provide poliomyelitis vaccines.

2.4 General overview of the expanded programme on immunization in the Western Pacific Region

The Western Pacific Region is the most heterogeneous of the WHO regions, with countries ranging in size from the smallest to the largest in the world, with economically and socially developed countries to least developed countries, well developed health services to still developing services, almost universal immunization to coverage as low as 10%.

Most of the developed countries have well established immunization programmes, while all the developing countries have been implementing and expanding EPI activities since the inception of the regional EPI programme in 1976.

WHO/UNICEF have made substantial contributions in these countries through planning, training, provision of technical inputs and material support such as vaccines, cold-chain equipment, transport, information, education and communication materials, vaccine quality control and production and monitoring and evaluation of the expanded programme on immunization. Other governments and non-governmental organizations have also been active in some of the countries in support of the expanded programme on immunization (Save the Children Fund, Rotary International, ADAB, UNDP, SIDA, FINNIDA).
A few of the larger countries of the Region such as Lao People's Democratic Republic, Papua New Guinea, Philippines, Viet Nam and China, will need additional inputs in the areas of manpower resources, cold-chain equipment, vaccines, training and health education material for the acceleration of activities to achieve universal child immunization.

2.5 National EPI programmes

Some of the national progress reports were presented in plenary session, while other programmes were presented during the group sessions.

2.5.1 China

At central level, the Division for the Control of Acute Diseases, under the Department of Epidemic Prevention of the Ministry of Public Health, is responsible for the formulation, monitoring and evaluation of the EPI plan of action. A National EPI Committee has been set up as an advisory body.

The three-layer epidemic prevention network (county, township and village) has a major role to play in the implementation of the immunization service.

In urban areas, immunization services are provided at monthly or weekly intervals. In rural areas with an established cold chain, vaccines can be supplied at least four times a year while in areas without cold-chain facilities, vaccination can only be performed once a year during the cold season. So far, the programme has dealt with measles, pertussis, tetanus, diphtheria and poliomyelitis. A schedule of immunization based on the WHO recommendations has been adopted by the National EPI Committee.

INCIDENCES OF EPI TARGET DISEASES IN 1985
(ACCORDING TO CASES REPORTED)

<table>
<thead>
<tr>
<th></th>
<th>No. of cases</th>
<th>Incidences (1/10^5)</th>
<th>Deaths</th>
<th>Mortality (1/10^5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles</td>
<td>418 159</td>
<td>40.77</td>
<td>2 654</td>
<td>0.25</td>
</tr>
<tr>
<td>Poliomyelitis</td>
<td>1 537</td>
<td>0.15</td>
<td>95</td>
<td>0.009</td>
</tr>
<tr>
<td>Pertussis</td>
<td>147 298</td>
<td>14.36</td>
<td>237</td>
<td>0.023</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>1 423</td>
<td>0.14</td>
<td>184</td>
<td>0.017</td>
</tr>
</tbody>
</table>
The incidences of measles, poliomyelitis, pertussis and diphtheria in 1985 was the lowest since 1978 when the EPI programme was initiated.

During the period 1982-1984, the Ministry of Public Health, UNICEF and WHO established a cold-chain system in Yunnan, Sichuan, Guangxi, Hubei and Fujian Provinces. The establishment of cold-chain facilities has benefited the management and implementation of immunization activities as a whole.

Chairman Li Xiannien personally visited a kindergarten in Beijing in September 1985 and called for the vigorous expansion of immunization coverage of children with the aim of bringing up a healthier generation.

With the approval of the State Council in April 1986, the National Coordination Group in charge of the expanded programme on immunization was established with the following functions: to direct and coordinate EPI activities on a nationwide scale; to organize health education activities so as to provide favourable conditions necessary for the launching of EPI activities, and to meet from time to time to solve major problems arising in the course of the programme's development. The Group is comprised of officials from the Ministry of Public Health, the National Commission on Education, All China Women's Federation, the Ministry of Broadcasting, Films and Television, the Ministry of Foreign Economic Relations and Trade, and the National Commission on the National Minorities. With the approval of the State Council, the 25 April each year has been designated the "Day of Health Education on EPI".

Present activities

At present, two points are stressed in EPI activities:

(1) strengthen the management of EPI activities;
(2) strengthen the support for EPI activities in remote and minority areas.

Present constraints

China is a developing country comprising various ethnic groups and differing economies and cultures. The remote areas peopled by national minorities are economically and logistically poor and EPI activities are, therefore, lagging. In these areas, it will be difficult to achieve the national target set for 1990.

With UNICEF and WHO support, the cold-chain facilities have been established in 25%-30% of the country, and immunization services can be carried out on schedule. In the remaining areas, it is not possible to vaccinate the children four times a year.

There are difficulties in the timely collection and analysis of information from the periphery to the central level owing to lack of human and material resources.

Future consideration

The Seventh Five-Year Plan formulated by the Government has set the coverage target at 85% in all counties by 1990.
2.5.2 Philippines

The expanded programme on immunization in the Philippines was launched in July 1976 with BCG and was expanded to include DPT, TOPV, measles and tetanus toxoid by 1983.

The cold-chain system is in place at all levels, and EPI training courses have been conducted for managers at different levels.

In April 1986, a comprehensive programme review was conducted to determine the current status. The major findings were:

1. There was a decline in morbidity and mortality rates from poliomyelitis, diphtheria, pertussis and tetanus but no decline in tuberculosis and measles.

DISEASE INCIDENCE REPORTED FOR THE LAST FIVE YEARS
(PER 100 000)

<table>
<thead>
<tr>
<th>Year</th>
<th>Diphtheria</th>
<th>Pertussis</th>
<th>Less than one year Tetanus</th>
<th>Polio</th>
<th>Measles</th>
<th>TBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>28.9</td>
<td>385.7</td>
<td>91.8</td>
<td>5.2</td>
<td>398.7</td>
<td>69.5</td>
</tr>
<tr>
<td>1981</td>
<td>13.0</td>
<td>391.6</td>
<td>65.4</td>
<td>3.5</td>
<td>422.9</td>
<td>102.0</td>
</tr>
<tr>
<td>1982</td>
<td>33.4</td>
<td>318.1</td>
<td>68.8</td>
<td>5.2</td>
<td>551.7</td>
<td>92.1</td>
</tr>
<tr>
<td>1983</td>
<td>27.7</td>
<td>342.3</td>
<td>64.3</td>
<td>1.2</td>
<td>485.9</td>
<td>98.4</td>
</tr>
<tr>
<td>1984</td>
<td>21.5</td>
<td>209.1</td>
<td>7.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Data for tetanus in the 0-28 days age group are not available.

2. The coverage survey showed the following:

- BCG - 62.2%
- DPT 3 - 45.8%
- Polio 3 - 47.6%
- Measles - 43.2%
- Fully immunized - 21.3%
(3) Problems encountered/identified:

(a) target-setting difficulties at lower levels
(b) lack of supervision and monitoring in some areas
(c) high drop out rate
(d) long list of contraindications

Targets set this year for programme acceleration are:

- 1987 - 50%
- 1988 - 70%
- 1989 - 80%
- 1990 - 90%

In order to achieve this, the following major principles will be adopted:

1. Strengthening the political commitment to the programme, following the proclamation by President Corazon Aquino committing the Philippine Government to the United Nations goal of universal child immunization by 1990.

2. Adoption of social mobilization.

3. Provision of comprehensive information, education and communication components.

4. Strengthening the current operation and implementation of the programme at all levels.

2.5.3 Samoa

The expanded programme on immunization is making very good progress. EPI coverage of children between the ages of 18 and 30 months increased from 20% in 1976 to 90% in 1985.

No cases of poliomyelitis and diphtheria have been reported for the last ten years, and only isolated cases of measles, tetanus and pertussis have been observed. Tuberculosis still remains a problem.

The target of 90% completely immunized children below the age of one year has now been set, to be achieved by the year 1990.

It is proposed to eliminate immunizable childhood diseases, and in particular measles. The Government will consider it a significant achievement if by 1990, no case of measles is reported. To achieve these targets, efforts will be directed towards strengthening all EPI activities, including case investigations.
2.5.4 Viet Nam

The average incidence per 100,000 for the period 1976-1980 for the six communicable diseases was quite high:

- Measles: 151.80
- Pertussis: 147.80
- Tuberculosis: 53.61
- Diphtheria: 3.02
- Tetanus: 2.62
- Poliomyelitis: 1.70

The expanded programme on immunization was accordingly launched in Viet Nam in 1981.

Viet Nam has encountered several difficulties and constraints in programme implementation.

By 1988-1990, 90% of the children below the age of 1 year are expected to be immunized. This should allow a significant reduction in the EPI disease morbidity rates.

Throughout the country, coverage will be gradually increased from 50% to 60% to 90%. All provinces will be encouraged to rapidly expand their EPI programme on a low-cost basis through the development of technical capabilities.

Viet Nam is implementing two immunization systems: routine services throughout the year and two winter/spring campaigns. A health education campaign is being launched at the same time, and targets will be set for the country every year.

Each campaign will be organized on a three-round basis from November to January.

2.6 EPI acceleration

In 1982, in a review of the expanded programme on immunization, the World Health Assembly decided that the progress of the programme was unsatisfactory and that unless programme development could be accelerated, the 1990 objective would not be achieved.

Acceleration strategies

There are many ways in which programmes can be accelerated, and they are often complementary. The key to any successful acceleration effort is social mobilization. Support from political leaders to the programme should be sought; their personal involvement is an important factor. Where political commitment to an immunization programme is high, there may be strong incentives for recommending that a mass mobilization effort be undertaken, during which time volunteer workers, backed by intensive publicity, supplement the routine health services in order to provide immunization to children and women.
The following actions should be taken to achieve acceleration:

(1) Increase the efficiency of existing services

**Improve accessibility**
- Immunization at ANY place of contact
- Reconsider contraindications
- Optimize the immunization schedule
- Improve the urban services

**Reduce drop-out rates**
- Make clinic visits more attractive
- Keep waiting to a minimum
- Explain the purpose of immunization
- Explain why it is necessary to return
- Explain when to return
- Keep tickler files
- Undertake home visits

**Channeling**
- Identify children in need of immunization by:
  - health workers
  - community members
  - students

(2) Introduce immunization pulses such as special days or special weeks, which generally follow one of two broad strategies:

- **Mass immunization** of children/women of a special age group and area, disregarding previous immunization coverage. Selection is usually based on such factors as low immunization coverage, inadequate recording of previous immunizations or doubtful quality of vaccines. This strategy is also frequently used for the control of poliomyelitis/myelitis with TOPV.

- **Use of channelling**, whereby health workers or volunteers scrutinize certain target groups for those still in need of immunization. Those in need are then directed to special immunization clinics. Such a strategy is particularly appropriate in areas where a majority is already adequately immunized.

The fundamental issue with immunization pulses is sustainability. A spectacular immunization effort, if not well followed through, may result in considerable frustration for the community, which has learnt the potential benefits of the programme and expects that these will continue to be made available.
Target setting in EPI

The Seventh General Programme of Work of WHO commits all Member States to establishing morbidity and mortality reduction targets for EPI target diseases.

Progress towards these targets can be measured by coverage, while the effectiveness of the programme can be measured by mortality and morbidity. These are direct indicators of the programme.

Disease reduction can be measured by the number of cases occurring, although deaths from tetanus will also help to establish the level of the problem.

The percentage change in the case rate and the absolute case rate can both be used in evaluating the target.

Coverage estimates are second best to disease reduction targets and are more useful in the early stages of a programme. The standard method of estimation is by EPI cluster survey.

A 100% coverage is impossible to achieve in most circumstances. Targets should be between 80% and 100% and should aim as high as possible. There should be equality of coverage distribution and, where necessary, a special effort should be made to include disadvantaged groups.

Based on the population and vaccine efficacy, it is possible to calculate what disease reduction can be expected for a given level of coverage of a disease.

Each EPI target disease presents different problems in establishing reasonable targets:

(1) The impact of BCG immunization of neonates should be measured using reduction of meningitis and miliary tuberculosis in the 0-4 age group.

(2) Neonatal tetanus should not exceed one case per 1000 newborns; some countries in the South Pacific may be able to eliminate it totally.

(3) The only meaningful target for measles is to immunize at least 95% of children before they contract the disease.

(4) Diphtheria incidence can be expected to be reduced by more than 99% to rates of 0.1 case per 100 000 population or below, with immunization coverage rates of between 70% to 80%.

(5) Poliomyelitis may be reduced to below 0.1 cases per year per 100 000 population in developing countries, with OPV coverage rates of 60-80%.

(6) Pertussis immunization coverage rates need to be in excess of 90% to lower incidence satisfactorily.

Countries should set their own targets for 1990.
2.7 The under-six clinic growth chart as an EPI indicator: the experience in Baguio City - Philippines.

The home-based growth chart was introduced in 1975 in the Philippines as the key to a comprehensive child health plan called the Under Six Clinic Programme at the Baguio General Hospital (DEMMC), Baguio City, and subsequently adopted as a regional, then a nationwide, programme in 1979 by the Ministry of Health because of its wide acceptance by the health workers and the mothers.

The under-six clinic growth chart costs US cents 5 with two-line curves based on the Philippine standards, which provides the information for the child's growth, breast feeding, food supplement, family planning, reasons for special care, oral rehydration, immunizations and treatment of acute and chronic illnesses.

The growth chart can be a powerful tool to accelerate/monitor the expanded programme on immunization as it provides specific information/directions, advocacy and demonstrations through discussions in the clinic/homes by health workers and mothers.

Based on the EPI urban survey done in 1985 and subsequently on a national EPI review in 1986 in the Philippines, there were higher coverage and fewer dropouts in immunizations in areas where the under-six clinic growth charts are actively promoted. The high percentage of growth charts found in the homes visited during the survey was impressive.

2.8 Training in the expanded programme on immunization in the Western Pacific Region

After many years of training activities for senior and mid-level health personnel, WHO has developed a full set of training materials for peripheral health workers called "Immunization in practice". This set of modules provides a useful example of how training can be offered to the actual implementers of the programme at community level.

Once adapted to the country realities and because of its modular type, it can be used to update the knowledge of peripheral health workers regarding the expanded programme on immunization.

At mid level - Each country should formulate a national EPI training plan with clear targets (i.e. at least 75% to 100% of mid-level personnel properly trained) and a time-frame related to the overall EPI acceleration plan.

At peripheral level - Training activities will be crucial also at this level for a good programme implementation. Each country should therefore include these activities into the training plan. Technical advice and support for the development of locally adapted and produced materials will be forthcoming.

One of the main thrusts will be the strengthening of the EPI and CDD curricula in training institutions. For such an activity, a special training course for trainers from different categories of training institutions has been developed by WHO. Members States are encouraged to implement this training as well.
2.9 Cold chain and EPI acceleration

Before initiating acceleration, certain aspects of the cold-chain and logistics activities at country level should be analysed and provided for. The distribution and storage system of vaccines require basic information such as:

- availability of electrical supply,
- possibilities of supplying an alternative energy (kerosene or LP gas),
- condition of road network,
- frequency of incoming vaccine supplies.

In many countries of the Region, an organized repair system for cold-chain facilities already exists but major constraints still exist in terms of:

- shortage or non-utilization of trained repair technicians;
- shortage of tools, consumables, spare parts and transportation means;
- inability of the repair organization to respond fast enough when a repair is needed. Simple procedures like maintaining repair records of the equipment are still of vital importance. In this area, simple solutions will provide the best inputs and contributions to programme implementation.

2.10 Mobilization of political will for UCI for 1990

At the international level, the United Nations Children's Fund (UNICEF) and WHO have played a major role in generating political will. International agencies such as Rotary International, Save the Children's Fund and bilateral agencies have also been urged to give worldwide impetus to the UCI goal. Some of the examples for generating political will are:

- The EPI goal by 1990 approved in resolution WHA 30.53 and adopted by the World Health Assembly in May 1977.

- The importance of EPI in maternal and child health and primary health care highlighted in resolution WHA 31.53, adopted in May 1978 and incorporated into the Declaration of Alma Ata in September 1978 for the attainment of health for all by the year 2000.


- On the occasion of the celebration of the Fortieth Anniversary of the United Nations on 25 October 1985, leaders, presidents, prime ministers, foreign ministers and NGO leaders pledged their commitment to UCI by 1990 as a crucial element of CSDR. The Pledge, "We the Peoples", was signed by the President of the General Assembly, the Secretary-General of the United Nations and world leaders.
At the national level, presidents, prime ministers and health ministers have made their commitment and their governments' commitment to adhere to the goal of UCI by 1990. Some examples are:

In the Philippines, President Aquino, on the occasion of the launching of the fortieth anniversary celebration of the United Nations Children's Fund (UNICEF) in the Philippines, pledged support to the goal of UCI by signing Proclamation No. 6. She pledged the new Government's support to UCI and called upon various governments, nongovernmental and religious organizations to express their support and commitment to UCI.

At sub-national level, many examples of how local leaders and community workers have played a strong leadership role in achieving results in immunization or maternal and child health have been experienced.

All these situations have shown how child immunization as a preventive measure can be newsworthy. It has attracted attention and saved the lives of children in spite of limited resources.

2.11 Neonatal tetanus

Neonatal tetanus should be suspected when infant mortality is high or when the proportion of deliveries not attended by trained midwives is high.

Any country with an infant mortality rate of more than 25 per 1000 live births, or with over 20% of women being delivered by untrained persons, would be wise to investigate whether or not they have a problem of neonatal tetanus.

Community surveys

The best way to estimate the size of the problem is through retrospective community surveys on deaths from neonatal tetanus. The surveys performed in recent years have mainly been based on a standard protocol in which 30 clusters are randomly selected, and in each cluster some 70 live births are identified. Typical for neonatal tetanus is a history of a child healthy at birth, sucking well for several days and then developing a stiffness of the mouth and an inability to suck. In the subsequent days the child develops general stiffness and spasms (convulsions) and in the overwhelming majority of the cases the child dies, this typically occuring on the seventh day after birth. In these surveys special consideration should be given to the length of the recall period. Usually a recall period of between four and twelve months is selected. A recall period of more than seven months predisposes to systematic under-reporting of deaths.

Based upon these surveys, it has been possible to estimate that each year some 800 000 to 1 000 000 infants die from neonatal tetanus in the world. This makes neonatal tetanus the second biggest killer (after measles) of the EPI target diseases. Neonatal tetanus is not just a silent disease, it is a silent pandemic.
In terms of prevention, there are two strategies available to prevent neonatal tetanus:

(a) immunization of women at risk; and
(b) training of traditional birth attendants in clean delivery techniques.

Two doses of absorbed tetanus toxoid, administered to women of childbearing age, with an interval of at least four weeks will protect some 80% of the children born within three years from neonatal tetanus. A third dose will prevent over 95% of the cases of neonatal tetanus for a period of five years, a fourth dose practically 100% for ten years, which a fifth dose will give lifelong protection to a woman. The most appropriate target group for tetanus toxoid is women of childbearing age. Strategies should be evolved to immunize them at any contact with the health services. No group of women, at any stage of pregnancy, is contraindicated. Available records should be used to register immunization given or, if not available, appropriate records should be introduced.

Training of birth attendants in hygienic practices during delivery is a more gradual and long-term strategy of controlling neonatal tetanus.

The advantages are that other causes of neonatal and maternal death may also be prevented, having a cumulative impact even greater than that of tetanus toxoid immunization. A combination of training of traditional birth attendants and immunization of women is the best.

Define the problem

- Conduct special surveys to determine the incidence of neonatal tetanus, unless it has already been proved that the disease is not a public health problem.
- Make neonatal tetanus a notifiable disease in reports from all health facilities.

Train

- Accelerate and improve the training and supervision of traditional birth attendants.

Investigate

- Investigate cases of neonatal tetanus to determine why the case occurred and what preventive action could have prevented it.

Immunize

- Give two doses of tetanus toxoid spaced at least four weeks apart to all unimmunized women of reproductive age, whether or not they are pregnant. Give a third dose to previously immunized women to protect them and their newborns for the next five years.
- Give a single dose to women who have already received three or more doses of DPT in childhood or tetanus toxoid during earlier pregnancies to protect both the mother and her newborn for another ten years.

- Take advantage of any visit by women to a health facility as an opportunity for immunization.

- Include tetanus toxoid immunization of women of childbearing age in national immunization days or other accelerated immunization activities.

- Record tetanus immunization status on the child's immunization record, on maternity records, or on a separate card kept by the mother.

2.12 Measles

Measles still remains an important disease which causes high morbidity and from 900,000 to 1,000,000 deaths in the developing countries each year. Immunization programmes have been shown to reduce cases drastically. The disease is highly infectious for ten days, when it is readily spread.

A high coverage is needed to control measles. If coverage is lower than 95%, an outbreak will, in due course, occur.

The vaccine is safe, effective and stable. Its safety must, however, be weighed by considering the risk of giving the vaccine, which is slight, against the risk of infection, which is high. Studies show that the vaccine is around 95% effective. It can be given safely and effectively with BCG, DPT, DT, TT, OPV and yellow fever, and possibly, with IPV.

There are few contraindications and the optimum age for vaccination is nine months of age when interference from maternal antibodies has fallen to low levels and before most cases occur. The later the immunization is left, the more children seroconvert, but the more children are unprotected to catch measles.

The fraction of cases occurring at six to nine months of age increases as coverage rises. Some countries now report one quarter of their cases under nine months of age. The route of administration is subcutaneous, although intranasal immunization appears to offer an alternative route.

A new vaccine, the Edmonston-Zagreb strain, is being field-tested and may be suitable for immunizing children earlier than nine months.

Transmission occurs in health centres when children come together. Health services must not be the site of transmission.

If measles cases are to be counted, the definition must be clearly defined. Measles should be a notifiable disease.

Outbreaks of measles should be investigated.
As part of an outbreak investigation, vaccine efficacy studies should be carried out. These will reassure staff and public that the vaccine works. A feature, which is demonstrated by vaccine efficacy studies, is the phenomenon that an increase in the percentage of vaccinated cases is to be expected when coverage increases.

Strategies that will enable measles to be controlled are:

- Immunize at nine months.
- Immunize contacts at once.
- Immunize at every contact with the child.
- Include measles in special immunization days and accelerated programmes.
- Use "channelling".

2.13 Health information system and the expanded programme on immunization

Progress in EPI information collection and tabulation has been made in the past few years, but much more remains to be done if the acceleration of the expanded programme on immunization is to succeed. The need for more and closer collaboration between EPI staff, epidemiologists and other health information personnel is evident. More effective feedback mechanisms for providers and users of EPI and disease incidence data need to be developed and used.

The introduction of microcomputers will greatly facilitate compiling and tabulating of data and dissemination, but the quality and timelessness of the data will remain the responsibility of national managers.

2.14 Improvement of immunization services in urban areas

In the World Health Assembly in 1986, the Director-General of WHO noted:

"Half of the population of the world is expected to live in large urban areas in the year 2000. Despite the relative abundance of health facilities and health personnel in urban as compared with rural areas, immunization coverage in the disadvantaged populations surrounding major cities is typically poor. High migration rates, lack of social cohesion, and friction between new immigrants and established authorities pose barriers which have proved difficult to overcome. Nonetheless, accessible services can be provided with few financial or logistic problems. Increased priority should be given to accomplishing this in the short term, while continuing efforts to provide more equitable services to rural areas."

These considerations led him to recommend that the expanded programme on immunization should improve immunization services to the disadvantaged in urban areas.
In order to accomplish this, the following recommendations are made:

Define the problem

Analyse coverage and disease incidence not only for the city as a whole but for sub-areas, particularly for neighbourhoods where the disadvantaged are concentrated.

Where the problems are not major:

- Introduce active follow up, using "channelling" strategies and "tickler" files, which bring persons missing appointments to the immediate attention of the health staff.

- Increase the number of outreach services, providing them at places and times particularly convenient to the populations in greatest need.

Where major problem exist in addition to the above:

- Promote the formation of urban immunization committees, where all agencies which can help improve services can meet and develop plans together. Where possible, make these the sub-committees of an urban primary health care committee.

- Initiate urban programme reviews, patterned after national programme reviews.

- Initiate urban surveillance systems for the EPI target diseases, using one or more existing inpatient, outpatient or rehabilitative facilities.

- Use voluntary or religious groups to reach fringe populations which are reluctant to establish contact with official services.

- Encourage the use of special sites and special hours convenient to the populations in question.

- In cities experiencing regular epidemics of one or more of the EPI target diseases, consider introducing periodic mass immunization days, weeks or months to supplement routine services.

2.15 Social mobilization

Social mobilization can be considered a combination of different methods to mobilize the people. These methods include force; legislation; application of various social sanctions like ridicule and gossip; provision of direct or indirect incentives in the form perhaps of needed resources; provision of information, education and skills training; and communication to help people see their own situation in new ways and to weigh alternative opportunities.

The United Nations Children's Fund-assisted activities are concerned with planned social mobilization, largely in the areas of providing needed resources, information, communication, skills training and advocacy.
Social mobilization is not a new concept. The need for it was already implicit in the Basic Services Strategy and explicit in the Declaration of Alma Ata. The current emphasis serves to recall the need to better articulate and to strengthen activities already ongoing.

The most important prerequisite for mobilizing participation is that the issue of "knowing the audience" should be taken very seriously. This means that better understanding and analysis must be given to the current conditions (needs, constraints, beliefs, strengths) of the people whose behaviour needs change.

But part of social mobilization is also the capability to reach and gain the informed support and action of other important audiences: decision-makers in health and other ministries, opinion leaders at all levels from the village to the palace, media and media personalities, nongovernmental organizations, donors, sister-agencies, to name a few. Social mobilization is a reminder that approaches applied to communication must be applied more widely. Most obviously, of course, the health services offered should match the communication about them, and must be "audience-based" in terms of cost, time, location convenience, etc. But it would be worthwhile to reflect as to whether a stronger orientation is necessary towards the various "audiences" in other areas (e.g. supplies and equipment - audiovisual and others, training programmes, management practices, etc.). All these are important elements in the social mobilization process.

The inclusion of a communication component in the expanded programme on immunization reflects the belief that simply supplying the services does not guarantee that they will be used, but that the programme must be based on dialogue with the users and an understanding of their beliefs, behaviour, constraints and potentials.

An important first step, therefore, in developing a programme of communication is to get communication from the people that it is hoped to involve in the programme - primarily, in the case of the expanded programme on immunization, it is important to hear from mothers why they do not go to have their children immunized, or why they have not completed the course.

In most countries where services are provided, immunization programmes are not new. When it is a question of accelerating or enhancing immunization to achieve UCI, the "problem" area is already defined in broad quantitative terms: for example, a certain percentage of children fail to return for a second or third DPT shot, or coverage of tetanus toxoid for pregnant mothers is very low. If the problem does not obviously lie in the "supply" side, the question to be asked is why are the services not being better used. Ideally, the question should have been asked in a slightly different form when the programme was being planned. The people responsible for planning the programme should have asked themselves how they could involve the community in the design of the programme so that it would meet their needs. Often one tends subconsciously to assume that because the product is a good and beneficial one, those benefits will be obvious to the intended users. The question should not be, how are available programmes or products to be promoted, but what are the existing
characteristics and qualities — their knowledge, attitudes and practice (KAP) — of the people whose behaviour it is hoped to change, or whose actions it is hoped to engage in support of the activities that are being promoted and assisted.

There should not and need not be any conflict between the promotion of globally relevant interventions and listening, responding to or involving individual communities and individuals. The answer lies in a more thorough analysis. Mothers, for example, may not have asked for the expanded programme on immunization or oral rehydration therapy, but they do want and need healthy, live children and have no doubts about taking other measures to meet this basic need. The challenge lies in listening for, hearing, uncovering this need and presenting interventions as a valid response to it. It is in this area incidentally that much could be learnt from marketing.

The EPI programme may not be in competition with other similar "products" in the strictly commercial sense, but it is in competition with long-established practices of child-care. It is important to prove to customers that the EPI "product" is as good as, or better than, the one she currently uses, and that the EPI sources of health information are as credible as the sources she is now using and listening to.

The main points of the programme communication approach are:

- Communication does not automatically take place with the provision of the services. Different communication inputs must be planned in advance and properly phased relative to other aspects of the programme and to each other.

- Several different groups must be reached and involved if the intended "beneficiaries" are to participate.

- Information from and about these groups, their characteristics, their current beliefs and behaviour, is needed to help shape the programme overall, as well as the communication inputs themselves.

- The channels or media used must be carefully selected according to the specific functions and specific audience addressed. The media or combination of media used must allow the "audience" also to speak back if there is to be real communication and dialogue.

- To communicate means to participate, to share. If this is kept in mind, it can be seen that this belief in two-way communication underlies the total programme communication strategy.

From the programme side there is a new skill or idea to be introduced to the audience, but their views on this must be sought. It is important to find out what they are doing now and why they are doing it. While it is known what different media can achieve, it is important to determine from the audience to which media they have most access, what media they like, and which they believe in.
Finally, when the programme and the communication element are established and under implementation, there must be a continuous and systematic monitoring and evaluation of the response from the audience.

Fuller discussion of these themes is available in the Handbooks in programme communication and training for CSBR, available from UNICEF/EAPRO, Programme Communication and Training Section, 19, Phra Atit Road, Bangkok, Thailand. Relevant titles in the series are:

- Programme Communication
- Audience Research
- Media Selection
- Message Design
- Social Marketing

2.16 Update on vaccines

In many developing countries, where immunization coverage is still limited, a high proportion of the EPI target diseases occur in the very young: typically some 25% of cases of measles, 35% of cases of poliomyelitis/myelitis and some 50% of deaths from pertussis occur in the first year of life.

Although the serological response to oral poliomyelitis vaccine in the first week of life is lower than that observed from immunization of older infants, 70%-100% of neonates benefit by developing local immunity in the intestinal tract and 30%-50% of the infants develop serum antibodies to one or more poliomyelitis virus types.

In countries where poliomyelitis has not been controlled, use of oral poliomyelitis vaccine in the newborn period will be particularly important. In this situation, OPV is given at birth or at first contact, with subsequent doses at 6, 10 and 14 weeks of age. In all countries, routine immunization with OPV and DPT can be safely and effectively initiated at six weeks of age.

A schedule designed to provide protection at the earliest possible age is:

<table>
<thead>
<tr>
<th>Age</th>
<th>Vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td>birth</td>
<td>OPV, BCG</td>
</tr>
<tr>
<td>6 weeks</td>
<td>OPV, DPT</td>
</tr>
<tr>
<td>10 weeks</td>
<td>OPV, DPT</td>
</tr>
<tr>
<td>14 weeks</td>
<td>OPV, DPT</td>
</tr>
<tr>
<td>9 months</td>
<td>Measles</td>
</tr>
</tbody>
</table>

To protect infants in the neonatal period, all women in the reproductive age should have two doses of tetanus toxoid, four weeks apart. These should be given during the first pregnancy, if not given previously; in subsequent pregnancies, an additional dose is required.
With the development of a more concentrated inactivated poliomyelitis vaccine, a two-dose immunization schedule has been under consideration in countries unable to reach children more frequently than twice a year.

<table>
<thead>
<tr>
<th>Age</th>
<th>Vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-8 months</td>
<td>IPV/DPT, BCG</td>
</tr>
<tr>
<td>9-14 months</td>
<td>IPV/DPT, measles</td>
</tr>
</tbody>
</table>

Given the late age at which children complete this schedule, the less than optimal protection against pertussis and measles and the doubts about interruption of transmission of the wild poliomyelitis virus, and also considering the high cost of the vaccine and the need for frequent contact between child/mother and health services for a variety of health care, these two dose schedules should only be used in remote areas where health services can only be provided every six months. Furthermore, it would be advantageous to add OPV to this schedule: at least one dose to children less than three months of age, who are left completely unprotected from poliomyelitis in this two-dose schedule.

In countries with a significant incidence rate of measles in the first year of life, nine months is the optimal age of immunization. Some countries embarking on measles elimination have adopted a two-dose measles immunization schedule. The second dose is meant to reach those who were not protected through the first opportunity.

Contraindications

In 1983, the Global Advisory Group recommended, and the International Paediatric Association endorsed, the following: "Every opportunity should be used to immunize eligible children and women. It is particularly important to immunize children suffering from malnutrition. Low-grade fever, mild respiratory infections or diarrhoea and other minor illnesses should not be considered as contraindications to immunization. Immunization of children so ill as to require hospitalization should be deferred for decision by the hospital authorities."

2.17 Individual country plans

A copy of each individual country plan will be kept on file in the Regional Office for the Western Pacific in the EPI unit and will serve as reference documents for future activities.

In addition to the plenary sessions, the participants were divided into four groups. This allowed for preparation of the following documents by the participants:

- Workshop I: Planning principles for EPI acceleration.
3. CONCLUSIONS

During the final plenary session, the following conclusions were approved:

(1) This was the first EPI managers' workshop held in the Western Pacific Region. It provided an invaluable opportunity for participants to exchange information and share experiences. Similar meetings should be organized on an annual basis at least until 1990. They should serve four purposes:

(a) Update managerial skills of participants by reviewing technical issues and training materials pertinent to the needs of national programmes.

(b) Update the knowledge of participants by providing progress reports concerning research and development being undertaken globally as well as that being undertaken within the national programmes of the Region. Of particular interest is research and development relevant to improving the effectiveness of national programmes.

(c) Share the results being achieved by national programmes, particularly with respect to the levels of immunization coverage being achieved and the impact of programmes on the incidence of the target diseases.

(d) Encourage national managers to revise their strategies in a timely manner, maximizing possibilities to achieve the goal of universal child immunization by 1990.

Consideration should be given to holding such meetings in different countries so that participants may have first hand impressions of different national experiences.

(2) This meeting involved the participation of the Regional Directors of WHO and UNICEF, bilateral donor countries such as the United States and Japan, and nongovernmental organizations such as Rotary International and Save the Children Fund. The participation of the various organizations supporting the expanded programme on immunization is an important element in promoting their continuing close collaboration, and such participation was an important factor contributing to the success of this workshop. Similar participation should be encouraged in such meetings in the future.
(3) Steady progress has been recorded by most countries of the Region in the area of childhood immunization services. Yet programme acceleration remains an over-riding priority for most countries if the 1990 immunization goal is to be attained. National acceleration efforts can be strengthened by:

(a) adopting national immunization schedules which protect children as early in the first year of life as feasible and defining clear national policies on contraindications which, in accordance with information provided by WHO, recognizing the large benefits of immunization in relation to the risks of the target diseases, reduce contraindications to a minimum;

(b) promoting immunization at every contact point, particularly by continuing to strengthen outreach services and by encouraging the provision of immunization services by hospitals and clinics seeing sick children; and

(c) mobilizing social action which creates effective consumer demand and ensures that the health services are able to make an adequate response to that demand. This can be achieved particularly by seeking the endorsement and support of national political leaders, by making full and professional use of all relevant channels of communication (including the mass media) and by ensuring the active partnership of ministries, nongovernmental organizations and community groups which are outside of the ministry of health. Social mobilization activities should be specifically included in national plans of operations, and staff with specific responsibilities in this area should be designated within the ministry of health.

World Health Day, 7 April 1987, will be devoted to immunization under the theme "Immunization: A chance for every child". This provides an opportunity to organize one or more national events which can strengthen the immunization programme. Such events may consist of a publicity day, week or month and may be combined with an intensification of actual immunization services. Every country in the Region should consider sponsoring some special immunization event in conjunction with World Health Day in 1987, and consider including some reminder of the national immunization programme and goals within the celebrations planned for future World Health Days through the year 1990.

The need for increased social mobilization efforts supporting national immunization programmes should not diminish broader investments being made to educate individuals about their personal responsibilities in investing in their own good health, and to give them the knowledge base to permit effective action. Such action includes taking specific preventive measures such as immunization but also includes many other measures, ranging from ensuring adequate diet and hygiene to adopting a healthy life-style.
(4) Improvement in the management of the health services would contribute toward programme acceleration. In addition to adapting immunization schedules and recommendations for contraindications to meet national needs, programme managers should strive to:

(a) Reduce clinic waiting times.

(b) Provide mothers with specific information concerning reactions which may be expected as a result of immunization and concerning the time and place for any return visits needed to complete the immunization schedule.

(c) Use the growth chart as the immunization record. Use of the growth chart alone cannot be expected to ensure that growth monitoring occurs or that corrective action will be taken when weight loss by a child is documented. But such a chart sensitizes both health worker and mother to these and other health interventions, and provides a base upon which to build more comprehensive services.

(d) Ensure that a sterile needle and a sterile syringe are used for each injection.

(e) Promote the use of record systems which identify children who have not appeared for a scheduled immunization clinic appointment and actively follow up such children.

(5) Specific immunization coverage and disease reduction targets should be set in all national programmes. These are important for monitoring programme progress, but are also important to permit adequate lead-times to secure the supply of vaccines and equipment needed to achieve the targets. Countries which are planning acceleration efforts should order any necessary extra vaccines and other materials well in advance so that routine services are not compromised.

Particular priority should be accorded to setting disease reduction targets for measles, poliomyelitis-myelitis and neonatal tetanus. Standardized case definitions for these diseases have been recommended by the expanded programme on immunization and should be considered for incorporation within national programmes.

The South Pacific area has an epidemiological environment particularly suitable for the elimination of some of the EPI target diseases. Progress in the South Pacific has been such that the potential appears excellent for declaring and maintaining this area as a poliomyelitis-myelitis-free zone within the near future, and adding measles and neonatal tetanus to this list by 1990. A specific proposal in this regard should be considered at the next EPI managers' meeting.

Poliomyelitis has also been eliminated in other countries of the Region. In such countries, epidemiological surveillance, backed up by the necessary laboratory support, should be further strengthened. As immunization services in other countries improve, the experiences of countries which currently report no cases of poliomyelitis-myelitis will be important in assessing the feasibility of regional elimination of this diseases, a goal already set for 1990 in the American and European Regions.
Neonatal tetanus remains a neglected disease throughout the Region. Neonatal tetanus should be made a separately reportable disease in all countries of the Region. Countries in which no cases of neonatal tetanus have come to the attention of the health authorities are not necessarily free from this disease. Specific neonatal tetanus surveys should be considered in countries in which tetanus spores are abundant in the soil and which report an infant mortality rate of over 20 per 1000 live births or 20% of the deliveries attended by untrained persons. Countries in which cases are recognized should develop a specific strategy for reducing the incidence below 1 case per 1000 live births by 1990. If national incidence is already below this level, a goal of elimination by 1990 should be adopted. Strategies should include a mix of approaches which include:

(a) efforts to immunize all women of childbearing age (with special emphasis on pregnant women and women who are members of high-risk groups or who reside in high-risk areas);

(b) identification, training and supervision of birth attendants; and

(c) strengthening surveillance of this disease.

Mass tetanus immunization programmes for women of child-bearing age should be considered in high incidence areas and tetanus should be included among the antigens administered during a national or subnational immunization day, week, etc. A record of tetanus immunization should be provided, and information on the tetanus immunization status of the mother should be included in the child’s immunization record.

Countries which have already adopted an elimination strategy should assess its effectiveness. Results should be shared with other countries.

Measles is one of the most difficult of the EPI target diseases to control. In countries where measles remains a problem for children under the age of one year, efforts should be made to achieve as high an immunization coverage as possible from the age of nine months. If cases are confined to older age groups, consideration can be given to raising the age recommended for immunization. Epidemiologic analysis of reported cases and outbreak investigations of cases occurring in areas which have been immunized should be carried out. Results should be used to improve the efficacy of disease control strategies.

(6) Training remains a priority in all programmes. More consideration needs to be given to developing specific training plans which will systematically provide initial and remedial training to all health workers involved with providing immunization services. Efforts in all countries should also be directed toward incorporating appropriate training materials in the curricula of institutions training health personnel. This applies as well to training materials which have been developed for other programmes such as diarrhoeal disease control and acute respiratory infections.
(7) Many weaknesses were noted in the management of the cold chain. Assessment of equipment needs should be made more frequently to ensure that appropriate types and quantities of equipment are ordered. Assessments can also be used to improve the distribution and use of existing equipment. More use should be made of the cold-chain time/temperature monitor cards and thermometers (with regular recording of temperature) at all levels of the health services. Some countries may benefit from special studies using the time/temperature monitors, particularly where cold-chain problems are suspected.

(8) The national and regional health information systems need strengthening. National managers often receive incomplete provisional data, and must wait many months before official data are available. Data are not received regularly from all countries by the Regional Office, and the official data which are received are not always consistent with data available in the national programme manager's office.

EPI information at the national level should be updated continuously. Regular feedback of this information should be provided to programme staff. Regional EPI information should be updated annually at the time of the meeting of national managers. Programmes which have the capacity to do so are encouraged to provide the Regional Office with a second updating approximately six months after the above meeting. To provide feedback, and as a basis for updating, the Regional Office should provide each country twice a year with a copy of the "EPI country profile", which reflects the most recent data concerning the country available at the Regional Office. Suggestions for improving the "EPI country profile" and other aspects of the regional EPI information system might be a specific topic to be discussed at the next EPI manager's meeting.

Computerization of the regional and global EPI information systems has already taken place. National programmes should also be encouraged to introduce the use of computers and should seek the financial and technical support permitting this.

(9) National programme reviews remain one of the most effective means available for identifying problems, for suggesting solutions, and for obtaining the commitment of decision makers to implementing those solutions. Such reviews should be considered in each country which has not yet achieved its coverage and disease reduction goals. Staff of international agencies and nongovernmental organizations (such as WHO, UNICEF, international development agencies, Save the Children Fund and Rotary International) and programme managers from nearby countries should be invited to participate in such reviews, recognizing that the total complement of such staff must be kept within reasonable limits.

Such reviews serve no purpose unless they result in action to improve the programme. A set of recommendations and conclusions should be drafted and, if possible, presented in person to the Minister of Health prior to the conclusions of the review. They should be accompanied by an action plan which specifies who is responsible for implementing each recommendation and the target date for its completion.
National managers are urged to review such action plans on an annual basis and to revise them as required. Full reviews may be considered at intervals of two to four years, depending on the needs of the individual programme.

Countries considering an acceleration programme are urged to conduct a review to permit a full assessment of programme needs and to permit the development of acceleration strategies which are most appropriate to those needs.

(10) Half of the population of the world is expected to live in large urban areas by the year 2000. Immunization coverage in such areas, particularly among disadvantaged populations, is typically poor, despite the relative abundance of medical resources as compared with rural areas. Opportunities to improve immunization services in urban areas should be used. The following actions may be considered:

(a) Define the problem. Conduct "micro-analysis" of immunization coverage and disease incidence to pinpoint neighborhoods and population groups at high risk.

(b) Improve the identification and follow up of persons requiring immunization services. Use "channeling" and record systems which identify persons who miss appointments ("tickler files").

(c) Improve the quantity and quality of outreach services.

(d) Promote the formation of urban immunization committees or include immunization among the mandate of existing committees to ensure the necessary political support for improving services.

(e) Use urban programme reviews patterned after national programme reviews to highlight problems and develop consensus regarding solutions.

- Use one or more urban health facilities as a sentinel surveillance site for one or more of the target diseases. Managers within this Region should consider establishing at least one such site in each capital city before the end of 1987.

- Consider introducing periodic mass immunization days, weeks or months to supplement routine services in cities where regular epidemics of one or more of the target diseases persist.
AGENDA

Monday, 28 July 1986

Registration
Opening Ceremony
Group photo
Global overview - EPI
Mobilization of political commitment/will
Regional overview - EPI
National EPI programmes
EPI acceleration - WHO
Universal Child Immunization/UNICEF
Open forum - EPI Acceleration

Dr R. Henderson
Dr Pratima Kale
Dr H. Mehta
Participants
Dr K. Keja
Dr A. Mostefaoui

Tuesday, 29 July 1986

Direct EPI indicators
  a) Incidence  ) Targets and
  b) Coverage   ) definition

Indirect EPI indicators and
the growth monitoring chart

EPI training materials and Immunization in
Practice-Module 7

Cold chain

Open forum

Dr J. Clements

Dr N. Clavano

Dr A. Borra

Mr M. Erkkila
WORKSHOP I - "Planning principles for acceleration":

Sub-group discussion on indicators

Intercountry  ) 4 groups
Interagency    

WORKSHOP II - "Planning EPI up to 1990"

Individual country preparation of plan of action 1987-1990
(with inclusion of elements of Workshop I)

Wednesday, 30 July 1986

Neonatal tetanus  Dr K. Keja/
                   Dr R. H. Herniman

Measles
Dr J. Clements

Health information system
Mr G. Presthus

WORKSHOP I

Group discussion on neonatal tetanus, measles, etc.

WORKSHOP II

Preparation of plan of action 1987-1990
(with inclusion of elements of Workshop I)

Thursday, 31 July 1986

Improvement of immunization services in Dr R. Henderson
urban areas

Social mobilization
Mrs Jane Bunnag-Haile

Information, education, communication on EPI

""

WORKSHOP I

Group discussion on urban areas, social
mobilization

WORKSHOP II

Preparation of plan of action 1987-1990 (with
inclusion of elements of Workshop I)
Friday, 1 August 1986

Vaccination schedules and contraindications - Dr K. Keja
Planning principles for acceleration (to be presented by one of the participants)
Presentation of one country EPI action plan per group
Closing ceremony
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<table>
<thead>
<tr>
<th>Country</th>
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<tr>
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<td>Dr Ho Hoon Kim</td>
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<td>Samoa</td>
<td>Mr Tipasa Me</td>
<td>Health Planning Officer &amp; EPI/CDD Coordinator</td>
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<td>Solomon Islands</td>
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<td>Trust Territory of</td>
<td>Dr Burton Jano</td>
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<td>Ms Berthilla John</td>
<td>Public Health EPI Nurse</td>
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<td>Ms Kiyoko Rengiil</td>
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<td>Vanuatu</td>
<td>Dr Alesana K. Seluka</td>
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</tbody>
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