



WORLD HEALTH ORGANIZATION  
ORGANISATION MONDIALE DE LA SANTE

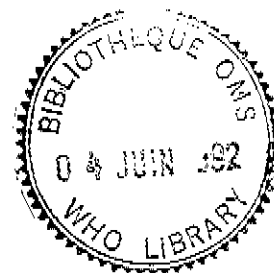
DISTR. : LIMITED  
DISTR. : LIMITEE  
WHO/MCH/FPP.92.2

REPORT ON THE  
INTERREGIONAL MEETING ON MANAGEMENT  
STRENGTHENING OF MCH/FP SERVICES

Geneva, 11-15 November 1991

Division of Family Health  
Maternal and Child Health and Family Planning  
World Health Organization  
Geneva

1992





29783

**INTERREGIONAL MEETING ON MANAGEMENT STRENGTHENING  
OF MCH/FP SERVICES**

**Geneva, 11-15 November 1991**

*Contents*

1.	<b>INTRODUCTION</b> .....	1
2.	<b>RAPID EVALUATION METHOD</b> .....	1
	2.1 Background information .....	1
	2.2 Principles of the rapid evaluation method .....	2
	2.3 Experience with the REM .....	4
	2.4 Recommendations .....	8
3.	<b>DISTRICT TEAM PROBLEM-SOLVING</b> .....	9
	3.1 Background information .....	9
	3.2 Principles of DTFS .....	10
	3.3 Experience with DTFS .....	11
	3.4 Conclusions and recommendations .....	14
4.	<b>PATIENT FLOW ANALYSIS SYSTEM</b> .....	18
	4.1 Background information .....	18
	4.2 Principles of PFA .....	19
	4.3 Experience with PFA .....	20
	4.4 Recommendations .....	23
	<b>ANNEX 1 List of Participants</b> .....	24
	<b>ANNEX 2 Agenda of the meeting</b> .....	27
	<b>ANNEX 3 Sample Graphic Display (Patient Flow Analysis)</b> .....	31

This document is not issued to the general public, and all rights are reserved by the World Health Organization (WHO). The document may not be reviewed, abstracted, quoted, reproduced or translated, in part or in whole, without the prior written permission of WHO. No part of this document may be stored in a retrieval system or transmitted in any form or by any means - electronic, mechanical or other - without the prior written permission of WHO.

The views expressed in documents by named authors are solely the responsibility of those authors.

Ce document n'est pas destiné à être distribué au grand public et tous les droits y afférents sont réservés par l'Organisation mondiale de la Santé (OMS). Il ne peut être commenté, résumé, cité, reproduit ou traduit, partiellement ou en totalité, sans une autorisation préalable écrite de l'OMS. Aucune partie ne doit être chargée dans un système de recherche documentaire ou diffusée sous quelque forme ou par quelque moyen que ce soit - électronique, mécanique, ou autre - sans une autorisation préalable écrite de l'OMS.

Les opinions exprimées dans les documents par des auteurs cités nommément n'engagent que lesdits auteurs.

## **1. INTRODUCTION**

As part of its efforts to assist Member States to improve the management of their health care services, the World Health Organization convened the Interregional Meeting on Management Strengthening of MCH/FP Services in Geneva from 11 to 15 November 1991. Dr Hu Ching-Li, Assistant Director-General, welcomed the participants on behalf of the Director-General. (See Annex 1 for List of Participants).

The objectives of the Meeting were to examine three important tools for strengthening the management of maternal and child health and family planning (MCH/FP) services - the Rapid Evaluation Method, District Team Problem-Solving and Patient Flow Analysis - and to consider strategies for their institutionalization. (See Annex 2 Agenda of the Meeting).

The three methodologies were described, and country experiences in their application were presented and discussed.

## **2. RAPID EVALUATION METHOD**

### **2.1 Background information**

The rapid evaluation method (REM) is a participatory and motivational approach to evaluation, which calls on the techniques of many disciplines to provide a prompt but comprehensive national assessment of a health service or situation. It is exploratory and cross-sectional, using selected indicators to provide both qualitative and quantitative information.

REM has been designed to assist ministers of health to evaluate major components of their health services employing predetermined criteria, and to plan a programme of activities aimed at improving the coverage and quality of those services. It is not an exhaustive assessment, but has been developed to provide basic information for planning quickly and with minimal expense. It has recently been used to assess MCH/FP services.

Previous evaluation methods have concentrated on quantitative assessment activities which have collected large volumes of data often of doubtful value. The data are usually set out in reports issued well after their collection, the reports are read infrequently, if at all, and often little action is taken on them. In most of these methods, little consideration is given to evaluation of quality of service, impact measurements and community participation.

In the last decade, a plethora of rapid assessments, such as rapid assessment procedures (RAPs), the rapid epidemiological assessment (REA), and the rapid demographic procedure (RDP), has extended the range of methods available, as well as reduced the time taken to conduct assessments and their cost.

In addition to highlighting where a service is performing well, such methods have regularly identified a number of service-related problems and needs, such as deficiencies in management, support and supervision, and staff morale, as well as a lack of information for sound decision-making by national managers.

With current and projected allocations for health expenditure in many countries remaining static or falling, the need for greater cost-effectiveness and cost-efficiency is becoming ever more urgent even to ensure that present levels of care and coverage are maintained, let alone to enable them to be extended.

Two main reasons for using the REM have been identified:

- (i) to provide prompt baseline data for programme planning and, specifically, for strengthening health service delivery; and
- (ii) to provide background data for project proposals.

The REM does not provide answers to health problems - it gives a snapshot of the health situation as it is observed at a given point in time.

Three REM evaluations were conducted in Africa in 1989, in Botswana, Madagascar and Zambia. Two further REMs were conducted in Papua New Guinea and Uganda in 1991, during which REM draft guidelines, developed at WHO headquarters and based on the experiences of the first three, were tested.

## 2.2 Principles of the rapid evaluation method

There are three prerequisites for the conduct of an evaluation using the REM:

- (i) a commitment at the highest level to implement the findings;
- (ii) a dedicated budget for the evaluation;
- (iii) adequate preparation and training.

The REM has been developed to extend the process of review to look not only at the distribution and determinants of morbidity and mortality, but also at health care and, especially, the quality of health care and level of community satisfaction and participation. It applies various additional techniques, such as risk appraisal, as well as those of epidemiology, sociology, anthropology, statistics and demography used in other assessment methods. It is both population-based and facility-based.

The REM can be used to review virtually any aspect of health or institutional care, be it an individual programme, e.g., family planning, groups of programmes, such as MCH/FP, general aspects of health, such as maternal mortality, or programmes directed at individual diseases, such as vitamin A deficiency or neonatal tetanus. It can be carried out by health care staff themselves, using a minimum of staff time, while increasing their morale.

While the first five REM projects have evaluated national programmes at internal costs that can be less than US\$ 50 000 per project, the REM can be applied at provincial, district, health centre or institutional levels at minimal cost. The major components of cost relate to travel, accommodation and allowances during data collection, and to data analysis, report writing and a final seminar.

As the REM is particularly directed at service review, it is essential that a significant number of peripheral staff concerned with the day-to-day delivery of the kinds of care being assessed and representatives of the community are involved at all stages. Failure to pay sufficient attention to these important aspects has compromised some of the early applications of the REM.

The term "rapid" is relative - a review from major planning to execution and preparation of a report with a plan of action can be achieved in less than six months. An essential component of the five-phase approach (some nations have used as few as three phases) to the conduct of an evaluation using the REM is the completion of a plan of action which is implemented over one year, followed by a review within three months.

Failure of a ministry to commit itself to act on the findings of the REM and to implement the consequent plan of action negates the purpose of the REM.

The REM concentrates on local issues, on the identification only of major indicators, and on "ownership" by local staff. Its processes specifically encourage community participation. It uses a mixed quantitative-qualitative approach in which the latter is by no means insignificant.

Because it identifies major problems, the REM can remove the need for the early problem-identification phase of the district team problem-solving (DTPS) process, and provide additional data for problem definition. Both DTPS and patient flow analysis can be used to further quantify and address major deficiencies highlighted by the REM, that is, they can be supplementary or complementary to the REM.

The REM is normally divided into five phases as follows:

- (i) During the *initiating phase*, which lasts four to five days, agreement is reached on conducting an evaluation using the REM and acting on its findings. Major objectives are set, a steering committee comprising senior policy makers and a manager is appointed, and a multidisciplinary core team of about ten persons is formed. The approximate number of internal and external facilitators required is determined. It is important that the core team and facilitators include personnel who can provide the kind of qualities required, such as a community perspective, experience of peripheral service delivery, social science skills and statistical competence.

The kinds of methodologies used have included:

- reviews of existing records
  - enumeration and testing of equipment and supplies
  - staff interviews
  - task observations
  - exit interviews
  - focus group discussions
  - household interviews.
- (ii) The *preparatory phase* takes about three weeks and establishes the basis for the REM, with the preparation of a set of major issues to be addressed, agreement on the levels of service to be reviewed, preparation of the survey methods to be used, the development, testing and finalization of a set of instruments to be used, and the choice of sites to be sampled.
  - (iii) The *data collection and analysis phase* takes three to four weeks, should be completed as soon as possible after the preparatory phase, and concludes with the preparation of a preliminary report and plan of action.
  - (iv) The *completion phase*. A national seminar which finalizes the report and endorses a plan of action for implementation is conducted as soon as possible after the previous phase, and preferably within three months. Implementation of many aspects of the plan of action may be initiated before this seminar.

The whole process to this point can and should be completed in about six months. This will facilitate the maintenance of the forward momentum generated by the process.

- (v) *The implementation and review phase.* The implementation process should continue for a year, and then the level of achievement should be assessed in a review process which should be completed within three months of the end of that year.

### 2.3 Experience with the REM

#### Composition of the steering committee, core team and facilitators

Failure to include on the steering committee the most senior relevant staff of the Ministry of Health and of training programmes decreases the probability of early implementation of findings. Failure to establish a broadly-based core team and group of facilitators may leave the REM project without the knowledge and skills required to design appropriate data-collection instruments.

Experience so far shows that participants have been specially selected from central ministry staff, with some national and provincial institutional staff in the core team. Data collection teams have included varying numbers of peripheral staff and occasionally community-based participants - to date both these occasionally, categories have been represented only minimally on core teams.

#### Minimizing the amount of data collected and simplifying the preparation of a set of major issues to be addressed

In each of the REM evaluations conducted to date, great difficulties have been experienced in handling the volume of data generated.

Once the scope of the services or programmes to be addressed has been decided, a framework or matrix of issues to be reviewed is drawn up. Only major issues should be included - addressing too many issues make the process unwieldy.

Sites and individuals from which and from whom information will be gathered, the specific methods of identifying significant factors and the source of that information, and the technical, training, management, support and resource indicators to be used for each issue are then determined. To reduce the data collection task, the factors or indicators chosen should be "representative" of the area concerned. For example, in assessment of quality of task performance, only sentinel tasks are reviewed.

All REM projects to date have collected excessive amounts of data which have complicated the process unnecessarily and almost compromised the speed of the process. Every question asked or item of data collected must be justified for inclusion on the basis that it is of major importance to the issues chosen.

Where a relevant survey has been performed recently, for example of the Expanded Programme on Immunization or of FP services, these topics can be omitted from the evaluation, or else included on a minimal basis to cross-check validity, but the results can be used to improve services.

Major issues examined so far have concentrated on maternal and child morbidity and mortality, and have included antenatal, postnatal and delivery care, family planning, AIDS, immunization, and aspects of child nutrition.

### **Minimizing the time required**

It is essential to appoint a dedicated manager who is normally involved in the area(s) to be reviewed and who is released full-time for the heavy work period of the REM project.

Regular meetings of the core team between phases are essential to ensure that the final report can be completed quickly.

The involvement during the formulation of the framework of someone skilled in the data processing programme to be used is essential to ensure that questions are asked and data recorded in an efficient manner for coding and analysis. This will also help in the construction, at this stage, of model tables, which will guide participants.

### **Training**

Lack of adequate training of survey teams, the core team and the data collection teams has proved to be a constraint. A minimum of three to five full days of training is required for a national programme. As many participants will not have read the REM guidelines beforehand, it is helpful to spend an additional day of the preparatory phase working through them.

Failure to ensure that data collectors have the required skills to collect certain data, for example to interpret a partograph or undertake a review of records properly, has precluded their collection.

### **Focus groups**

It is appreciated that the focus group technique has specific components from the social sciences which must be addressed carefully if adequate data are to be gained. These include: the training of teams by a person skilled in the technique skills; the development of a culturally appropriate approach with respect to deciding who participates and how questions are asked; and the method used to select community participants and the sites at which to hold meetings.

Focus groups have been found to serve two functions in REM projects: (1) a sensitization of staff to the feelings of the communities they serve; and (2) the provision of qualitative information about service provision and solutions to problems in service delivery and disease incidence and prevalence, including the desired level of participation by the community in making decisions about services and their delivery. While some criticism has been levelled at the amount of training required for the conduct of focus groups, REM participants have judged such groups to have had considerable success in achieving these two aims, and most believe them to be a valid adjunct to REM. The data gathered in this way have also proved useful in information, education and communication (IEC) programmes.

In Madagascar, a designated group was trained for five days and used specifically for focus group discussions only. In REM projects undertaken so far, focus groups have been held with men, women, traditional birth attendants, adolescents, community leaders, midwives and other paramedical staff.

### **Involvement of other agencies**

Effective coordination of all relevant agencies is essential. This has not always been the case so far. For example, in one country, three agencies were involved with the Ministry of Health on similar exercises, each without the other knowing. On another occasion, different agendas being followed by different agencies delayed progress in the REM project.

### Results of REM projects

In presenting their experiences, countries noted that, in general, the REM project yielded information that provided programme managers with better insight into service information performance. Other findings are summarized below.

- (i) The use of health service providers and programme managers in field data collection enabled action to be taken almost immediately where inadequacies that could be addressed readily were noted.
- (ii) The REM is a useful tool for providing baseline information on service performance even in the absence of preset programme targets. However, in order to obtain a good qualitative measure of services, it is important and desirable to have a standard(s) against which such comparisons can be made objectively, e.g., through the use of procedure manuals and/or protocols.
- (iii) The framework for data collection was a useful format for categorizing service components that were evaluated in relation to the health condition selected for assessment. The categories included:
  - mother's knowledge about, attitude to and satisfaction with services;
  - service output (e.g., risk screening, referrals, care management);
  - resources (e.g., facilities, equipment, supplies, logistic support);
  - management (e.g., work plan, supervision, monitoring, evaluation);
  - content of training programmes and frequency of in-service training.

In some cases this framework was not easy to follow when questionnaires were being developed. This was particularly noted where those who developed the questionnaire had not been involved in the design of the framework

### Discussion of the REM process

The following positive aspects were outlined.

- (i) In general, the REM provided useful data and information sought by national MCH/FP programme managers within a reasonably short time (from acceptance of the REM concept to the production of preliminary tables of results), enabling almost immediate action to address some of the findings.
- (ii) Because of its participatory nature, the REM induced a strong sense of ownership of the exercise.
- (iii) An added strength of the process is its ability to bring out useful qualitative data to complement quantitative data.
- (iv) Participants developed improved communication between different levels of services, and many senior-level officers re-established contact with peripheral services.
- (v) In spite of delays in the production of the final report and the dissemination of REM results, the findings were well received by a broad audience in each country,

representing Ministry of Health officials, other collaborating sectors (e.g., the Ministry of Education), nongovernmental organizations (e.g., national planned parenthood associations), and international donor agencies (e.g., IPPF, UNFPA, UNICEF, and WHO). In some instances, nationals armed with the REM findings were able to steer and guide donor inputs to assist programmes in a more systematic manner.

- (vi) REM results were used further in different countries to:
- enhance dialogue among different agencies involved in the formulation of national population policy (Botswana, Zambia) owing to the sharing of relevant information from the findings;
  - provide useful information on issues relating to adolescent reproductive health (Madagascar), when the Government reviewed policies relating to adolescent health. Furthermore, the REM results have been used as a reference in discussions with donors in relation to MCH/FP activities.
- (vii) The REM methodology is transferable and some modifications can be made to suit specific country situations. The participatory nature of the process facilitates the transfer of both the philosophy and the skills needed. It is clear that the methodology can be used or replicated at every level, including the institutional level.
- (viii) While it is not a research methodology, the REM has contributed greatly to the identification of knowledge gaps about socio-anthropological issues in communities that need to be addressed through operational research, e.g., concerning utilization of child-spacing services and a high incidence of home deliveries in the face of high attendance at antenatal clinics and low utilization of postnatal services.
- (ix) Feedback of REM results and follow-up action has been achieved through provincial and district teams drawing up their own action plans to address some of the shortcomings in their services. Most of these have included increased efforts to involve communities in the catchment areas of their health facilities.

The discussions that followed the presentation of the country experiences further emphasized and/or highlighted positive aspects of the REM process and areas in the process that need improvement.

#### **Extent of transfer - institutionalization of the REM**

As yet no formal institutionalization of the REM exists in any of the countries where it has been introduced. It is felt by countries that the REM process can be replicated with minimal or greatly reduced external technical support. Where possible, a senior health officer from the Ministry intending to undertake an REM programme will find it valuable to participate in an REM project elsewhere first.

#### **The extent of follow-up and action taken**

Follow-up action based on the findings of REM projects was taken in the immediate post-evaluation period using preliminary results. Further action and longer-term plans continue to benefit from the use of the results. All countries reported that they had disseminated REM results nationally. Examples of specific country activities are as follows.

- (i) In Botswana, in-service training for private medical practitioners was designed and conducted to update them in family planning technology, and a course in family planning counselling was conducted for MCH/FP nurses.
- (ii) At central level in Madagascar, the REM report has become a key reference instrument in carrying out field supervision of MCH/FP services. A national MCH/FP seminar, using the REM results, has developed a long-term training strategy for health personnel.
- (iii) In Zambia, a research committee immediately used REM data to identify additional areas for operational research in family planning, e.g., evaluation of family planning activities for Government and nongovernmental organizations. The results were then used in designing a comprehensive national family planning programme.

More detailed lists of follow-up action and actual uses of the REM results are contained in the individual country reports.

## 2.4 Recommendations

### Country level

1. A REM project should not be undertaken without:
  - (i) a commitment by the Ministry of Health to act on its findings,
  - (ii) a committed budget.
2. The REM should be built into the national health development process.
3. Every effort should be made to complete the REM process as far as the preparation of a preliminary report and plan of action within a maximum of six months of the initiating phase, followed by a national seminar within a further two to four months.
4. The commissioning authority should act on major findings immediately in cases where the national seminar and the final report are likely to be delayed.
5. Efforts should be made to ensure appropriate representation on the steering committee, which should include senior policy makers, and that the core team and facilitators group have broadly-based expertise, including those involved in training, peripheral service staff and community representation as well as someone with qualitative research and statistical skills.
6. Adequate training time should be allocated to the preparatory and data collection phases - a minimum of three to five full days.
7. There should be effective liaison with participating agencies and effective coordination of all activities.
8. Efforts should be made to provide microcomputing equipment and skills at the district level to facilitate the promotion of evaluation as part of management strengthening.
9. Authorities responsible for basic, post-basic and in-service training should include basic health service evaluation and epidemiology in their programmes.

### **World Health Organization**

1. WHO should refine the REM process further.
2. WHO should make greater efforts to validate the REM technique.
3. WHO should ensure the follow-up of REM projects, for example through national seminars.

### **3. DISTRICT TEAM PROBLEM-SOLVING**

#### **3.1 Background information**

The first application of what has become district team problem-solving (DTPS) was a learning-by-doing workshop organized in India in 1984 by Dr S. Sapirie, at that time Regional Adviser in management at the WHO Regional Office for South-East Asia, in response to a specific request from the Director General of Health Services of Gujarat State in the face of constant complaints from district personnel that resources were inadequate. The Director General believed that district personnel were not making the best use of the resources they had been allocated and that they would make good headway if they would only think more critically about health problems and how they might better manage their services.

In 1986 in Malaysia, the Director General of Health, seeking to strengthen the district level, asked WHO for similar help: some kind of training exercise that would create in district health teams the capacity to develop solutions to health problems. In both cases, teams were not told how to solve their problems but were simply asked to find their own solutions. The steps they should follow in this process, however, were clearly spelled out in advance. In both of these workshops, the teams successfully found feasible solutions that did not require any additional budget, carried them out and then evaluated them. The Malaysian workshop was designed with the same general features that were subsequently used in bringing DTPS to Malawi in 1987, Zimbabwe in 1989, and Tunisia and Zambia in 1990. These included the following.

- (i) Choice of one priority health problem as the focus for each team.
- (ii) A non-didactic planning workshop of 9-10 to ten days, followed by 10-12 months of implementation, and finally a 3-day non-didactic self-evaluation workshop.
- (iii) Firm systematic guidance of teams through the basic steps of problem-solving and project development including the use of simplified formats for the production of tables - workshop time is rigorously conserved for the work of district teams as they carry out carefully sequenced tasks, producing about 20 specific paper "products" during 9-10 days in the following 15 sessions:
  - presentation of selected problems
  - review of problem-related data and problem definitions
  - problem analysis
  - design of additional data collection instruments
  - field data collection
  - analysis of field data
  - final problem definition and description
  - idea generation and selection
  - formulation of targets and objectives
  - solution description
  - implementation plan

- evaluation plan and indicators
- proposal writing
- presentation of proposals
- workshop evaluation.

- (iv) The accountability of each team to its hierarchic superiors at provincial and central levels for finding, putting into operation, implementing and evaluating a solution without asking for additional budgetary resources. The Director General, along with other central and regional staff, set aside time to listen to each team's solution project, and later its evaluation of the year-long effort to resolve the problem.

### 3.2 Principles of DTSPS

Although many minor variations have been made in the basic methodology, the key aspects of successful DTSPS are the following.

- (i) The Director General of Health Services or another senior Ministry of Health decision-maker must sponsor the DTSPS effort and listen to the team proposals at the end of the planning workshop.
- (ii) The primary purpose is for each team to analyze and eventually solve a chosen MCH/FP or primary health care problem of concern at both the district and provincial/central levels.
- (iii) The underlying purpose is to effectively raise the capacity of district and facility staff to analyze problems and take effective action without intervention and support from higher levels (such support should, of course, be provided, but peripheral staff should acquire the self-reliance to be productive even if they do not get it).
- (iv) National facilitators, including staff of the MCH/FP programme and of a national faculty or training centre, must be available to administer DTSPS and provide support.
- (v) The district teams must have at least four members, including the district medical officer.
- (vi) All steps of the DTSPS are for real: teams are challenged to devise and implement a solution that does not require additional resources, then to evaluate its effectiveness.
- (vii) Teams must be allowed to come to their own conclusions about the nature and causes of the problem, possible interventions, how interventions are to be implemented, and how the solution and its implementation are to be evaluated.
- (viii) The teams are facilitated in their analysis and planning only through the provision of simple methods and formats. No didactic teaching is undertaken, only briefings about the tasks to be performed in each session and the nature of the product the team is to generate.
- (ix) The planning workshop is administered according to a rigid time schedule. Teams must develop required products at the end of each session and day, and a solution proposal document by the end of the workshop. The teams present and defend

this proposal before a panel of decision-makers who offer criticism and suggestions.

- (x) Teams implement their solution in their district for approximately one year. During this period, provincial/central staff visit the teams to give support if required, and to remind them of the impending evaluation workshop.
- (xi) At the end of the implementation period, teams evaluate their progress in implementing the solution, in improving service performance, in health impact and in teamwork. Teams conduct this evaluation according to the evaluation framework they designed during the planning workshop and placed in their proposal.
- (xii) During the three-day evaluation workshop, teams present their evaluation to the same panel of decision-makers who reviewed their proposal at the planning workshop. The relevance of the DTSP process is also evaluated.

### 3.3 Experience with DTSP

#### Participation

The following table shows the countries, and the numbers of provinces/regions/states and district teams that had participated in the DTSP process by the end of 1990.

Table: Participation in district team problem-solving

Country	No. of provinces	No. of district teams
Malawi	3	5
Malaysia	8	8
Tunisia	4	4
Zambia	5	5
Zimbabwe	1	8
<b>Total</b>	<b>21</b>	<b>30</b>

#### Problems assessed by district teams

The majority of problems addressed in the 30 districts were concerned with MCH/FP issues, including:

#### Infant/child health

- malnutrition (5)
- immunization coverage (5)
- perinatal mortality (2)
- measles morbidity and immunization (1)
- diarrhoeal disease mortality (1)

### Maternal health

- maternal mortality (2)
- family planning (2)
- deliveries by untrained health workers (2)
- excessive transfer of women in labour (1)
- eclampsia (1)
- anemia in pregnancy (1)

### Others

- sexually transmitted diseases (1)
- malaria control (2)
- food poisoning (1)
- delays in latrine construction (1)
- health service problems (2) - bypassing of clinics (1) and poor coordination of district health services (1).

### **Notable achievements**

### Methodology

Repeated application of the DTSP process has clearly shown the effectiveness of experiential learning (learning-by-doing), i.e., that district health workers can effectively learn management skills and ways to improve their services **without** being told didactically how to do so. However, the work assignments through which teams thus learn are not easy to organize or facilitate. They require the time and participation of central and regional staff, as well as the costs of travel to actual works sites in the health services to follow up on the work of teams.

### Solution implementation

Achievements in solution implementation have been striking at the level of improvements in MCH/FP services. The majority of the many service improvements envisioned by the district teams without additional budget were reported to have been achieved in every country and in almost all of the districts that applied DTSP.

Evaluation of the achievements in solution implementation at the health status level, via demonstrable improvement in health status indicators, has been difficult for most of the teams. Clear improvements have been reported for maternal mortality in Malaysia, for neonatal mortality in Tunisia and for measles morbidity in Malawi and Zambia. In general, the one-year period of implementation has been too brief for demonstration of an improvement in the particular health problem addressed. In many cases, the data that were needed to show an improvement were either not available or were not entirely reliable, either at the outset or after the year of implementation.

Participants felt that indicators should not only focus on impact indicators to show that the process is progressing should also be developed in order to keep up team morale, since health status targets are unlikely to be achieved after such a short implementation period.

### Management strengthening

The year-long, learning-by-doing DTSPS process has been strikingly successful in achieving and sustaining all of the following management improvements in practically all of the districts teams:

- development or improvement of effective teamwork;
- improved team spirit;
- increased morale and confidence among health care workers;
- increased team adaptability in revising service strategy;
- improved communication and coordination within teams and with other groups;
- better organization, monitoring, supervision and evaluation of support activities and of health services;
- better delivery and use of health services;
- increased dialogue about how to improve services and reduce health problems between district, regional and central personnel;
- better collection, analysis and use of data for decision-making about service delivery;
- better use of available resources;
- initiation or strengthening of community participation and collaboration in delivery/use of health services (in most but not all of the countries);
- sustained systematic group work in resolving problems, monitoring progress, revising strategy and organizing and controlling implementation activities;
- instillation of a "management outline"; DTSPS has taught discipline and a way of tackling problems; most teams realized the hard work DTSPS involves but they were not distracted from their other daily activities - DTSPS is felt to open other avenues and is just the beginning of new health development dynamics.

### **Common problems encountered in the DTSPS process**

Problems commonly encountered include the following:

- Existing documents and data are not brought to the planning workshop. Teams often need to start working on the problems to really know the type of data they need to collect.
- Facilitators tend to lecture, particularly at the start of a project, consuming team time.
- Team members lack the epidemiological skills needed for collecting and analysing data.
- Busy senior officials do not attend as agreed.
- There is insufficient collaboration with relevant units or coordination with other health programmes. There is a need to involve other units in the preparatory phase and brief them on the concept so that DTSPS will be widely supported.
- A high turnover of staff decimates teams and saps continuity of effort.
- Although locally of high impact, DTSPS is used in few districts.
- Team members feel they have insufficient time for tasks during the workshop.

### **Institutionalization**

In Malaysia, the results of the DTSP process were judged to be strikingly successful by the highest officials of the Ministry of Health as well as by the district teams and it was decided to extend it as a major vehicle for improving the health services. Before that could happen, however, extensive changes in personnel occurred at the top of the Ministry of Health and in the training institution involved. The result was that other approaches, already financed and begun were undertaken instead. The principles and selected parts of the DTSP approach were incorporated into the in-service management programme of the Institute of Public Health. In addition, the DTSP approach was and continues to be used in the development and conduct of the country's safe motherhood programme. Five years later, a second year-long DTSP process, with additional training in group dynamics, has recently been undertaken.

In Zambia, all the district teams strongly endorsed continuation and extension of DTSP at the evaluation workshop, as did central personnel in attendance. However, other approaches for strengthening the management capacity of service personnel, already funded, scheduled and promoted by international agencies, were undertaken rather than DTSP. The methods of DTSP, having been highly appreciated by the personnel who experienced them, were explicitly presented and then used in at least two other types of workshop. It was reported to the Meeting that methods imported from DTSP continue to be used by many of the members of the original teams, and have been taken up informally in numerous other districts.

In Zimbabwe a second round of DTSP was undertaken just two months after the first planning workshop, because the Regional Medical Officer saw it as a highly effective way to improve health planning skills throughout his districts. In two districts, annual plans were developed at the clinic level, with community involvement. At a joint evaluation workshop, all eight district teams and regional personnel strongly endorsed extension of DTSP to other areas. Representatives from three other provinces attending the evaluation workshop said that they were impressed and intended to discuss undertaking DTSP in their areas. Subsequently, there have been personnel changes - affecting the director of the programme that undertook DTSP, the person who ran the DTSP and a key facilitator from the University are no longer in their posts - and no further extension has yet materialized.

### **3.4 Conclusions and recommendations**

#### **From Country participants involved in DTSP**

##### **1. Planning phase**

- The planning phase should be lengthened
- The planning workshop may be continuous or in three phases:
  - (i) first phase (five days)
  - (ii) data collection in the field (two to four days)
  - (iii) final phase (five days).
- The choice of problem should be made by the district or operational level in consultation with regional and central levels; once aware of national priorities, districts are able to identify priority problems.
- Only one health problem should be tackled in the first DTSP cycle; learning is better if only one problem is dealt with at a time.

- The criteria for choice of problem should include data available at the operational level.
- District team participants should be chosen from those who are interested and technically competent.
- Facilitators should come from the Ministry of Health and training institutions (to create a pool), and should also include other experienced people, e.g., in agriculture, the social and behavioral sciences, demography, etc.

## 2. Implementation phase

- Duration should be nine to 12 months.
- There should be periodic monitoring, every three months.
- DTSP activities should be integrated with ongoing primary health care activities.
- All DTSP activities must be part of the annual plan at the operational level.
- Central and provincial managers should be exposed to the DTSP process to feel closer to districts and develop a similar outlook.
- A mechanism should be available for interaction between district, state (province) and national facilitators as and when required.
- State/provincial managers should provide supportive supervision and resources as necessary.
- Community participation and intersectoral collaboration should be obtained whenever possible.

## 3. Evaluation workshop

- A duration of three days is sufficient (in the view of most participants).
- The evaluation of team success after one year of implementation should be based more on process indicators than on health status indicators.
- National and provincial managers must attend the evaluation workshop so that decisions on technical and policy issues can be taken.

## 4. Overall approach of DTSP

- The approach should be simplified, made more flexible, and adapted to local situations, e.g., alternative methods of problem analysis and variations in duration should be allowed.
- The district should select the problem and collect relevant data before commencing the planning workshop.
- Sessions should be added to cover specific aspects: team building, data collection and analysis, epidemiological, and the managerial process (during the planning phase of the planning workshop).

- Emphasis should be put on efficient, effective and economic use of available resources.
  - The evaluation plan should be included in the action plan.
  - There may be instances where extra resources are needed (for certain innovative activities). Provinces (states) should be sensitive to and supportive of such needs.
5. Sustainability of DTPS
- The DTPS approach should be expanded to other districts.
  - After the evaluation workshop, in the second year, DTPS can be used on other priority problems.
  - DTPS should be evaluated in the same districts after two years and again later.
  - Experiments with the DTPS approach should be made in other contexts (e.g., hospitals).
6. Institutionalization
- The Ministry of Health should be responsible in collaboration with training institutions.
  - DTPS must have a high-level champion in the Ministry of Health.
  - The evaluation workshop should be the end of the first cycle not the end of DTPS.
  - DTPS activities should be built into regular services, with annual reviews presented at ongoing provincial or national meetings.
  - Regular exchange visits with participating districts should be encouraged.
  - Initially, the public health institute or another training institution could be the national base for further extension of DTPS to other districts.
  - Schools of public health and their staff should be considered as resources for facilitation.
  - An effort should be made to train a critical mass of facilitators from provincial and district levels.
  - DTPS workshops could be conducted at provincial and district levels, with central support, to decentralize training.
  - DTPS should be integrated in existing programmes of the Ministry of Health.
  - DTPS should be used for other problem-solving initiatives (as has been done in safe motherhood programmes, strengthening district management of primary health care, etc.).
  - Resource persons and training institutions in the country should be identified.

- Agreement should be reached between the Ministry of Health and training institutions regarding the use of DPTS.
  - Facilitators should be trained in the theory as well as the practice of DTSPS and facilitation of experiential learning.
  - A training plan for DTSPS should be established for generalization.
7. Basic training
- The problem-solving concept, as applied in DTSPS, should be incorporated into basic training.
  - The DTSPS approach should be included in post-basic training programmes (public health, nursing courses, masters degrees in public health, etc.).
  - DTSPS should be introduced into basic training under certain circumstances, when sustained field work and group responsibility can be organized, but not just as a course of lectures on the theory.
8. The role of external agencies
- WHO support for DTSPS is still required.
  - WHO should coordinate the activities of other agencies in this field (to avoid duplication and waste of resources).
  - Donor agencies should be involved in all phases of DTSPS.
  - WHO should finalize and distribute the "Guidelines for conducting DTSPS".
  - Support is needed from international agencies for training, in particular computer training for district teams, and for the development of training manuals.
  - Contacts and information exchanges should be maintained between involved countries.

**From the interagency discussion**

1. General
- DTSPS is a proven, effective method of promoting team spirit.
  - Learning-by-doing is an essential ingredient of DTSPS.
  - Guidelines must be strictly followed, at least during the first application of DTSPS methodology in a country and the first exposure of national facilitators.
2. Institutionalization
- The role of external support staff in facilitating the process is vital in initiating DTSPS implementation.

- The best if not the only training for DTSPS facilitators is participation in actual DTSPS implementation.
- For the diffusion of the DTSPS process within a country there needs to be a pool of facilitators; eventually district-level personnel who have learned the methodology (by doing) could be added to any national pool of facilitators.
- The process could be built into health management strengthening programmes (e.g., in five-year plans) or could be incorporated under special national and international initiatives, e.g., the national programme of action for child survival and development.
- Conduct of DTSPS should be built into country projects during project formulation.
- DTSPS should be linked with use of the rapid evaluation method and patient flow analysis and the three processes should be introduced into other programmes (e.g., control of diarrhoeal diseases, the Expanded Programme on Immunization, etc.).

### 3. Future needs

- Efforts should be made to address the lack of capacity of national and district staff to deal with data and indicators.
- The reasons why DTSPS has not developed further in countries where it was successful several years ago should be investigated.
- Efforts should be made to modify the process, making it less rigid, and easier to integrate in existing management programmes.
- Experienced staff should be used as facilitators in other provinces and countries.
- Inadequate awareness in countries that this style of improvement is available has resulted in low demand and lack of mobilization of financial resources. The reasons for this should be investigated.

## 4. *PATIENT FLOW ANALYSIS SYSTEM*

### 4.1 **Background information**

Patient Flow Analysis (PFA) was originally developed by the Family Planning Evaluation Division of the Centers for Disease Control (CDC), Atlanta, Georgia, USA, in cooperation with the Office of Family Planning, the Bureau of Community Health Services of the Department of Health, Education and Welfare of the United States Government. Its original objective was to provide a technique for assessing problems regarding the utilization of time by staff and client in family planning clinics. Early applications were undertaken in collaboration with the Illinois Family Planning Council and Tennessee Department of Public Health. More than 800 PFAs of family planning clinic sessions were carried out during the development phase of the system, mainly in the USA. In 1979, the PFA system was made available to all family planning programmes that received United States Government funding. PFA study coordinators were recruited from these programmes and trained to teach local clinic managers in the use of PFA and the analysis of graphical and statistical output.

The system was further and further refined and eventually turned into a generalized tool for the study of patient handling procedures. With the advent of relatively cheap microcomputing

facilities, the whole technology including the possibility of clinic-based data collection, processing, and production of PFA graphs and statistics became available.

#### 4.2 Principles of PFA

PFA is a method of enquiry that documents personnel utilization and patients' waiting time between service stations in health service clinics. It is used to identify problems in patient flow, determine personnel and space needs, and document personnel costs per patient visit.

PFA is essentially quantitative. It measures the amount of time patients and staff spend in various types of service and/or waiting. It does not define standards, nor does it provide automatic solutions to flow problems. It does provide tools with which solutions can be developed.

Health service organizations using PFA can measure the performance of individual clinics, design new clinics, initiate improvements in clinic procedures, and review personnel needs to increase overall clinic efficiency. Specific anticipated benefits that derive from PFA include reduction of patient waiting time in the clinic, more equitable distribution of the workload for each staff member during the working day, and reduction of personnel costs in the clinic. Additional patients may also be served for the same or even reduced costs.

In order to ensure rapid feedback of results to clinic staff, data processing is performed by microcomputer, although this does not constitute a condition for utilization of the system. Earlier studies were performed using grid paper and plotting the resulting staff/patient encounters by hand, but nowadays the use of microcomputers is particularly convenient. During a study, data are collected on clinic characteristics, e.g., opening hours, tasks assigned to personnel, such as registry clerk, pharmacist, etc., and patient stops at the various duty stations such as the laboratory or the dentist. When a study is performed, each patient card is accompanied by a PFA patient register on which entry and exit times are marked by each staff member who establishes contact with the patient. This procedure ensures minimal interference with the normal operating procedures at the clinic, while marking the length of time of each service stop.

The PFA computer programme produces two products, or outputs. One is a graphical plot tracing each patient through the clinic session. The upper part of this graph illustrates the patient number, type of visit, and length of each contact that the patient makes while moving through the clinic. The lower part of the graph displays the staff time occupied with patients and the time spent otherwise for each staff member. The second output is a statistical report containing a summary and six detailed tables. The statistics measure time use both from the patient's perspective, including the total time spent in the clinic and time receiving services, and from the perspective of staff time, the amount of time spent with various types of patients. Personnel cost data, both by staff category and patient visit type, is optional and will be produced if staff salary information has been included in the dataset. It is important to note that the recording of time is solely oriented towards patient encounters and the interpretation of the graphic display (Annex 1) always needs to make an allowance for administrative tasks and other duties to be performed by staff when not in patient contact.

It is important to see PFA as a tool within the larger context of clinic management. All the staff in the clinics studied should be included in the feedback process and consulted about the formulation of solutions to problems found during the study. Such inclusion of staff is now a leading trend in management philosophy, as it has been found to produce positive results consistently. In general, the managerial environment associated with PFA emphasizes service to the patient, and is based on a belief in the ability of both staff and patients to behave as rational agents in creating the best possible service environment. Therefore, it is not just the technology of PFA but this philosophy as well that has to be transferred to an organization in order for it to make full and appropriate use of PFA's potential. In addition to these features, PFA is a

management tool that essentially requires no additional cost. This is an important feature in the times of economic constraints such as are currently being experienced by the vast majority of health services. Ultimately, PFA can also serve as a means for improvement of cost-effectiveness and cost-efficiency as reorganized clinics and health centres become more productive.

#### 4.3 Experience with PFA

##### UNRWA

The 1985 Primary Health Care Review of the health facilities under the authority of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) noted the excessive crowding and patient loads in UNRWA facilities. In cooperation with the WHO Collaborating Centre on Perinatal Care, contact was established with the Clinic Management Unit of CDC, and a first mission started the process of transfer of the entire PFA system to the Jordan Field Health Office of UNRWA in August 1988. This was the beginning of several support visits which ultimately transferred the complete system to UNRWA staff including training of trainers which was completed in 1991.

Initial flow analyses were performed in three clinics and data were processed for two clinics. UNRWA health centres serve large communities and daily attendance can amount to between 150 and 800 contacts. These large datasets initially posed a problem, as the PFA computer system had a maximum handling capacity of 200 encounters. Nevertheless, the data were processed and several results emerged. At one of the health centres, Jabla, Hussein, the study of the architecture of the facility revealed several obstacles to a smooth, unilateral flow of patients. Discussions of the limits on patient flow imposed by the location of the maternal and child health (MCH) clerk/registry have led to the decision to reallocate this function to another part of the building. In addition, doors to the outside walking area were provided for several consultation rooms which reduced the internal confusion caused by crossing traffic flows.

The studies performed at the various sites during both the training period and subsequent independent applications revealed the following:

- excessively long patient waiting time;
- very short staff/patient contacts (one to three minutes);
- the principle of "first come, first served" was not observed;
- unequal utilization of staff time for performing similar tasks;
- uneven utilization of staff time throughout the working hours;
- large group health education sessions which resulted in staff members being idle and bottlenecks in the flow pattern;
- constructional defects hampering the easy flow of staff and patients;
- in some facilities, registry clerks and assistant pharmacists experienced excessive workloads beyond capacity.

Recommendations were subsequently developed with staff, and it is noteworthy that PFA shares the highly participatory nature of both the rapid evaluation methodology (REM) and the district team problem-solving (DTPS) approach. Decisions for changes in procedures are developed by staff - the study coordinators act mainly as facilitators. The following recommendations for change were subsequently adopted by staff in the clinics under study:

- introduction of an appointment system;
- ensuring that patient cards were kept in order of arrival pattern during transfer from one station to the next;
- reallocation of tasks within the nursing team to provide two stations of child care instead of one;

- a change in the order of service delivery and the routing pattern for the care of diabetes patients;
- health education for small groups or on an individual basis;
- reallocation of service stations, e.g., the MCH clerk at Jabal Hussein Health Centre;
- the building of MCH sub-centres to relieve the pressure on some clinics;
- establishment of additional assistant pharmacist and clerk posts.

After clinic staff had implemented these changes, it was observed that the intended changes in patient flow were actually taking place. An initial simple appointment system, whereby patients were told to come to the service at the same time was ultimately replaced with a more formal appointment system. This was achieved in consultation with the community, which also suggested a difference in clinic opening hours that was favourably responded to by the UNRWA administration.

As a result of the introduction of PFA as a management tool the following benefits are generally observed:

- more service time spent with patients;
- low-cost solutions implemented;
- reduced patient waiting time leading to less frustration during clinic visits;
- an increased equitable distribution of workload over the working hours;
- reduced overcrowding at health centres;
- increased staff morale and higher levels of job satisfaction;
- improved services and quality of care in patient handling;
- provision of an objective tool for the establishment of staffing and space needs;
- small changes in clinic procedures producing large, visible results.

#### Zambia

In Zambia the current UNFPA project includes the integration of MCH/FP services at clinic level. As a result of organizational changes introduced through REM and DTSP application; this presents another logical step in the improvement and strengthening of management of MCH/FP services in the country. From the outset, the application of PFA has formed an integral part of the integration process. It was felt at a preparatory meeting held in Lusaka in 1989 that PFA could help streamline the existing pattern of service delivery in health centres, while identifying staff time that was presently not used in an optimal way. This would further pave the way for opening up the clinics for a "supermarket" approach to service delivery or, in other words, allowing patients to receive any service on any day of the week rather than having to attend specialized clinics on specific days. It was felt that this would ultimately increase access to services and improve MCH/FP coverage.

Six facilities were initially selected for PFA study and an initial procedure and equipment survey preceded the PFA exercise. Prior to integration, all facilities were adequately equipped so that tasks could be performed appropriately. Both urban and rural facilities were included in the study to reflect different community needs.

Only a single two-week mission was carried out to inform participating clinic staff about the PFA system, train staff of the Family Health Department in both the principles and practice of PFA data collection and analysis, and study and help identify solutions for one of the clinics chosen. During this phase the national team received further support from a colleague who had already been involved in the integration of MCH/FP services in Botswana. The participant from the neighbouring country had likewise applied PFA during this process and thereby provided excellent first-hand knowledge on positive and critical points during the integration period. After this initial exercise, which received support from CDC and WHO, all subsequent PFA studies

were performed by national staff alone. It is felt that additional support is now needed to enhance team capacity in generating and interpreting PFA data.

The following results were obtained from the PFA studies:

- Staff/patient contact time was low within a range of one to three minutes per task which raised questions concerning the quality of care.
- Exploitation of available staff time during clinic hours was low.
- The practice of telling patients to arrive early lead to overcrowding of the facilities.
- Group health education created bottlenecks and led to rushing of patients through the remaining part of the clinic session;
- Inadequate space to perform clinical tasks was identified as a contributory factor to long waiting times, particularly at rural facilities.
- Peak times of attendance were followed by under-utilization of staff time.

#### Discussion of PFA applications

It was generally recognized that the method of presentation of findings to clinic staff and discussion of graphical and statistical outputs helped clinic staff to formulate strategies to improve clinic organization. While the dissemination of results caused embarrassment to some of the service supervisors in Zambia, the commitment to produce changes was nevertheless maintained. As staff involvement during the discussions concerning procedural changes was ensured, issues concerning the quality of care likewise emerged. It has also been observed that staff interest in this issue has subsequently been maintained and improvements in staff/client relationships have been noted. The need for in-service training was also established as a by-product of the PFA exercise and the open discussions surrounding clinic management and patient handling procedures.

It was noted that for integration to be successful in Zambia, the community needs to be sensitized in order to enlist their support during the period of change. This is particularly important during the period of moving from specialized clinic days to the "supermarket" approach, whereby any service can be obtained on any day of the week. It has been observed that it takes quite a time before patients adjust to the new schedule and stop arriving according to the pattern previously established. Confidence needs to be built up in the community so that it can trust that a service will be available when requested.

The discussions highlighted the following points:

- The highly participatory nature of the PFA process and the resulting staff motivation are acknowledged as among the most beneficial aspects of PFA.
- Discussion of PFA graphs and statistics with clinic personnel provides a good vehicle for addressing issues in clinic procedures and quality of care.
- The PFA system is capable of handling multi-purpose visits, e.g., a mother attending general curative care with her child being followed through preventive care.
- The bias of increased performance of staff during a PFA study is acknowledged. It is suggested, however, that the results are interpreted as the maximum

performance that staff can give under the existing system. It is worth remembering that PFA identifies the system constraints in clinic organization; it is not directed at issues of staff performance. However, patterns in staff utilization of specific tasks can be derived.

- Supervision from higher levels during the implementation of procedural changes must be ensured. However, supervision should be supportive rather than oriented towards inspection, which would reduce the motivation of staff to implement their strategies for procedural changes.
- Staff attitudes during clinic reorganization should be taken into account as a central concern. PFA study coordinators must ensure that staff do not feel threatened and that they acquire ownership of the process by empowering them to decide on procedural changes.
- Enlisting the support of the community is an essential feature during the implementation of changes in clinic procedures. At UNRWA, for example, a simple appointment system was introduced after the first PFA studies. Subsequently the community was asked about the possibility of further improvements in the appointment system. Suggestions concerning the clinic opening hours were made and a more formalized appointment system was introduced.
- The question of PFA being dependent on microcomputers was raised. It was pointed out that PFA studies can be performed manually using grid paper and a simple pocket calculator.
- Given the demonstrated success in initiating procedural changes at clinic level, it was argued that it might be possible simply to expose staff in other clinics to the experiences gained in order to initiate changes this way. It was felt, however, that the demonstrated capacity to act as a "change agent" derives from the discussion of both graphs and statistics with respective clinic personnel. It is the exposure to this objective measure rather than the perceived observations by superior personnel which forms the basis of staff motivation for change.

#### 4.4 Recommendations

1. PFA should form an integral part of the existing REM and DTPS approaches.
2. Technology and methodology transfer should be performed with a view to ensuring self-sustainability.
3. WHO Regional Offices should consider the inclusion of PFA activities in country support programmes.

ANNEX 1

*List of Participants*

Country participants

Ms Nimat ABU ZAHRA  
UNRWA  
P.O. Box 484  
Amman, Jordan

Prof. Abdallah B'CHIR  
Faculté de Médecine  
Monastir, Tunisia

Dr Ganapati J. BHAT  
Senior Lecturer and Head Dept.  
of Paediatrics and Child Health  
School of Medicine  
University Teaching Hospital (U.T.H.)  
Ridgeway, P.O. Box 50110  
Lusaka, Zambia

Dr John CHIKAKUDA  
EPI Programme Manager  
UNICEF  
Box 30375  
Lilongwe-3, Malawi

Dr Davies G. DHLAKAMA  
Provincial Medical Director for the Midlands  
Province in Zimbabwe  
Provincial Medical Directors Office  
P.O. Box 206  
Gweru, Zimbabwe

Dr Prabhavati JOGINDER SINGH  
Lecturer  
Department of Social and Preventive Medicine  
Faculty of Medicine  
University of Malaysia  
Kuala Lumpur, Malaysia

Dr Naceur KAMEL  
Chef de Service d'Evaluation à la Direction  
des Soins de Santé de Base  
Ministère de la Santé Publique  
33, Rue de Sousse  
Tunis, Tunisia

Dr Raj KARIM  
Director, Public Health Institute  
Jalan Bangsar  
Kuala Lumpur, Malaysia  
(Co-Chairman)

Mrs Martha KASONDA  
Deputy Family Health Co-ordinator  
Ministry of Health  
Box 30377 Capital City  
Lilongwe 3, Malawi

Mrs Rosemary N. LIKWA  
Research and Evaluation Officer  
Family Health Programme  
Ministry of Health  
P.O. Box 30205  
Lusaka, Zambia

Dr Roslan MOHD GHAZALI  
District Health Officer  
District Health Office  
33000 Kuala Lumpur  
Perak, West Malaysia

Ms Khutsafalo MODISI  
MCH/FP Officer  
Box 992  
Gaborone, Botswana

Dr John MBOMENA  
Director  
Ministry of Health  
Lusaka, Zambia  
(Co-chairman)

Dr O. OBATOLU  
Director MCH/FP  
Ministry of Health  
Harare, Zimbabwe

Dr Jeannette RABEHARISOA  
Cordonnateur National des Projets de  
Planification Familiale  
Direction de la Médecine Préventive  
Ministère de la Santé  
Antananarivo, Madagascar

Other Agencies

Dr John BAINBRIDGE  
Director of Evaluation and  
Management Audit Department  
International Planned Parenthood Federation  
Regent's College  
Inner Circle  
Regent's Park  
London, NW1 4NS, U.K.

Dr Nicholas DODD  
Senior Technical Officer  
Technical and Evaluation Division  
United Nations Population Fund  
220 East 42nd Street  
New York, N.Y. 10017, USA

Mrs Maryse HODGSON  
Evaluation Officer  
International Planned Parenthood  
Federation  
Regent's College  
Inner Circle, Regent's Park  
London NW1 4NS, U.K.

Dr Anthony A. HUDGINS  
Chief, Clinic Management Unit  
Programme Services and  
Development Branch  
Division of Reproductive Health  
Centers for Disease Control  
1600 Clifton Road  
Atlanta, Georgia 30333, USA  
(Rapporteur, Patient Flow Analysis)

Ms Marilyn LAUGLO  
Health Consultant  
Center for Partnership in Development  
Post Box 23 Vinderen  
N-0319 Oslo 3, Norway

Dr Cathy MELVIN  
Chief, Program Services and Development  
Branch  
Division of Reproductive Health  
Mail stop K-22  
Centers for Disease Control  
1600 Clifton Road  
Atlanta, Georgia 30333, USA

Mr Ndolamb NGOKWEY  
Programme Coordinator  
UNICEF  
P.O. Box 2289  
Cotonou, Benin

Dr Michel PECHEVIS  
Chef du Service des Enseignements  
Centre International de l'Enfance  
Chateau de Longchamp  
Bois de Boulogne  
75016 Paris, France

WHO Regional Advisers in MCH/FP

\*Dr G. DEODATO  
MCH/FP  
WHO Regional Office for the Western Pacific  
P.O. Box 2932  
1099 Manila, Philippines

Mr Norbert DREESCH  
Programme Management Officer  
c/o Country Liaison Officer  
P.O. Box 177  
Vila Vamatu  
(Rapporteur, Patient Flow Analysis)

Dr Ghada HAFEZ  
MCH/FHE  
WHO Regional Office for the Eastern  
Mediterranean  
P.O. Box 1517  
Alexandria 21511, Egypt

Dr A. B. Hatib NJIE  
FHP  
WHO Regional Office for Africa  
P.O. Box No. 6  
Brazzaville, Congo

Ms Candace LONGMIRE  
Statistician, Family Health  
WHO Regional Office for South-East Asia  
World Health House  
Indraprastha Estate  
Mahatma Gandhi Road  
New Delhi 110002, India

Dr Arabang Potlako MARUPING  
Medical Officer  
MCH/FP  
Sub-Regional Office III  
P.O. Box 5160  
Harare, Zimbabwe

Dr E. Nestor SUAREZ-OJEDA  
MIE  
WHO Regional Office for the  
Americas/Pan American  
Sanitary Bureau  
525, 23rd Street N.W.  
Washington, D.C. 20037, USA

Consultants

Professor Melvyn THORNE  
The Johns Hopkins University  
School of Hygiene  
615 North Wolfe Street  
Baltimore, MD 21205, USA  
(Rapporteur, District Team Problem-Solving)

Professor Anthony RADFORD  
The Flinders University of  
South Australia  
Bedford Park  
South Australia 5042  
(Rapporteur, Rapid Evaluation Method)

WHO Secretariat

Ms Martha ANKER  
Statistician  
Epidemiological and Statistical Methodology

Dr Mark A. BELSEY  
Programme Manager  
Maternal and Child Health  
and Family Planning

Mr J. CHEYNE  
Programme Officer  
Expanded Programme on Immunization

Dr Richard GUIDOTTI  
Medical Officer  
Maternal and Child Health and Family Planning

Dr. G. HIRNSCHALL  
Medical Officer  
Division of Diarrhoeal and Acute Respiratory  
Disease Control

Dr HU Ching-Li  
Assistant Director-General

Dr K. JANOVSKY-WEIR  
Scientist  
Division of Strengthening of Health Services

\*Dr J. MARTIN  
Medical Officer  
Office of International Cooperation

Mrs Eva MATHUR  
Technical Officer  
Special Programme of Research  
Development and Research Training in Human  
Reproduction

Dr S. ORZESZYNA  
Medical Officer  
Monitoring, Evaluation and Projection  
Methodology

Dr Angèle PETROS-BARVAZIAN  
Director  
Division of Family Health

Dr Habib REJEB  
Public Health Administrator  
Maternal and Child Health and Family Planning  
(Secretary)

Dr Steve SAPIRIE  
Chief, Monitoring, Evaluation and Projection  
Methodology

Dr P.M. SHAH  
Child Health Development  
Maternal and Child Health

Dr I. TABIBZADEH  
Responsible Officer  
District Health System

Dr M.C. THURIAUX  
Epidemiologist, Strengthening  
of Epidemiological and  
Statistical Services

Ms R.M. TRUAX  
Nurse Scientist  
Educational Development of  
Human Resources for Health

\*Dr H. WASSEF  
Medical Officer  
Office of International Cooperation

\*unable to attend

**INTERREGIONAL MEETING ON MANAGEMENT STRENGTHENING OF  
MCH/FP SERVICES**

**Geneva, 11-15 November 1991**

Room A, 1st Floor

Provisional Agenda

1. Conceptual basis and country experiences gained in applying the management learning method of District Team Problem-Solving.
2. Applying Rapid Evaluation Methods (REM) to assessment of Maternal/Child Health and Family Planning Services. Evaluation of methods used and experiences gained from application in countries.
3. Improving clinic management and integration of MCH and FP services using Patient Flow Analysis (PFA). Assessment of a clinic management tool and several country experiences.
4. Institutionalization of methods for improvement of management in MCH/FP: Development of strategies for implementation.

ANNEX 2

**Interregional Meeting on Management Strengthening of MCH/FP Services**

**DISTRICT TEAM PROBLEM-SOLVING  
RAPID EVALUATION  
PATIENT FLOW ANALYSIS**

**Geneva, 11-15 November 1991**

**Room A, 1st Floor**

Provisional Programme

Monday, 11 November 1991

8.30 - 9.00	Registration	
9.00 - 9.15	Welcoming Address	Dr Hu Ching-Li
	Election of chairperson, rapporteur Introduction/Objectives of workshop	Dr Rejeb
9.15 - 9.30	Introduction to:  Country Experiences in Applying District Team Problem-Solving (DTPS)	Dr Sapirie
9.30 - 10.30	Malawi DTPS presentation	Mr Chikakuda
10.30 - 10.45	* Coffee Break *	
10.45 - 11.30	Discussion Malawi experience	
11.30 - 12.30	Malaysia DTPS presentation	Dr Raj Karim
12.30 - 14.00	* Lunch Break *	
14.00 - 14.45	Discussion Malaysia experience	
14.45 - 15.45	Zambia DTPS presentation	Dr Bhat
15.45 - 16.00	* Coffee Break *	
16.00 - 17.00	Discussion Zambia experience	

Tuesday, 12 November

9.00 - 10.00	Zimbabwe DTPS presentation	Dr Dhlakama
10.00 - 10.30	Discussion Zimbabwe experience	
10.30 - 10.45	* Coffee Break *	
10.45 - 12.00	Tunisia DTPS presentation	Dr Naceur
12.00 - 12.30	Discussion Tunisia experience	
12.30 - 14.00	* Lunch Break *	
14.00 - 15.45	Discussion: Lessons learnt from country experiences	
15.45 - 16.00	* Coffee Break *	
16.00 - 17.00	Strategy for institutionalization	

Wednesday, 13 November

9.00 - 10.30	Finalization of recommendations and strategy for institutionalization	
10.30 - 10.45	* Coffee Break *	
10.45 - 11.00	Introduction to Rapid Evaluation Methodology and expected output of discussions	Dr M. A. Belsey
11.00 - 11.45	Briefing on REM in MCH/FP	Dr Guidotti
11.45 - 12.30	Botswana REM experience	Mrs Modisi
12.30 - 14.00	* Lunch Break *	
14.00 - 14.45	Discussion Botswana experience	
14.45 - 15.30	Madagascar REM experience	Dr Rabeharisoa
15.30 - 15.45	* Coffee Break *	
15.45 - 17.00	Discussion Madagascar experience	

Thursday, 14 November

9.00 - 9.45	Zambia REM experience	Ms Likwa
9.45 - 10.30	Discussion Zambia experience	

10.30 - 10.45	* Coffee Break *	
10.45 - 12.30	REM: Strengths, weaknesses, problems encountered, prospects for future development and application	
12.30 - 14.00	* Lunch Break *	
14.00 - 14.15	Introduction to management strengthening at service level:  The application of Patient Flow Analysis (PFA)	Mr Dreesch
14.15 - 15.00	Zambia PFA presentation	Ms Likwa
15.00 - 15.45	UNWRA PFA presentation	Ms Abu Zahra
15.45 - 16.00	* Coffee Break *	
16.00 - 17.00	Discussion of PFA as clinic management tool, strengths and limitations; using PFA during integration of MCH/FP services	

Friday, 15 November

9.00 - 10.30	Review and Discussions of draft report	
10.30 - 10.45	* Coffee Break *	
10.45 - 12.00	Review and Discussions of draft report cont.	
12.00 - 12.30	Closing	

