



WORLD HEALTH ORGANIZATION
ORGANISATION MONDIALE DE LA SANTÉ

DPE/80/1
ENGLISH ONLY
INDEXED



APPLYING
HEALTH PROGRAMME EVALUATION

Assessment
and
Recommendations

Report by an Interregional Meeting
on Development of Health Programme Evaluation
Geneva, 9 - 13 July 1979

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1. INTRODUCTION

1.1 An Interregional Meeting on Development of Health Programme Evaluation was held by the World Health Organization from 9 to 13 July 1979 in Geneva. In opening the meeting and welcoming the participants, Dr T. A. Lambo, Deputy Director-General, expressed particular satisfaction at the presence of national participants; this would help to ensure that the discussions would be highly relevant to country situations. He suggested that the group should not re-discuss principles of evaluation but should concentrate rather on the practical use of evaluation as a flexible tool to improve current practice and promote better planning. One of the tasks of the group would be to decide how best to use the Evaluation Guidelines that had been elaborated by WHO and which the World Health Assembly had adopted and recommended for use.

1.2 He stressed that the usefulness of evaluation lies in its ability to make people think about what they ought to be doing rather than concentrating on details of what has already been done. Evaluation as part of the managerial processes for health development should be used as a framework and not as a strait-jacket. Countries were embarking on a process of developing strategies for attaining health for all their people. One of the searching questions that had been raised by Members of the Executive Board and Delegates to the Health Assembly was: "How can we know whether we are making any progress towards attaining this goal?" Thus, part of the meeting would be devoted to discussing indicators that might be used for monitoring and evaluating strategies for health for all by the year 2000. Above all, the group should be highly practical, keeping in mind the communities, villages and the under-staffed health services which would be providing the information from which indicators would be derived.

1.3 Following Dr Lambo's opening remarks, the meeting elected as Chairman, Professor W. A. Hassouna of Egypt, and as Rapporteur, Mr S. Sapirie, from the WHO Regional Office for South-East Asia. The Secretary, Mrs I. Brüggemann, then stated the purposes of the meeting, as follows:

- (a) To obtain feedback on experience in evaluation and particularly on the suitability of the Guidelines for Programme Evaluation that had been issued by WHO;¹
- (b) To review the experience of countries in health programme evaluation, in order to learn of the problems they had met and their accomplishments; and of the amounts and types of resources they had applied to the process;
- (c) To learn how evaluation methods might be improved;
- (d) To identify useful indicators for monitoring and evaluating the strategies for health for all;
- (e) To decide how national and WHO staff might best be trained in methods and application of evaluation.

1.4 The Chairman then pointed out that programme evaluation was still at the stage of promotion and that the attitudes and reactions of people to the subject should be looked into, as well as its methodology.

¹Provisional Guidelines for Health Programme Evaluation, WHO Document, HPC/DPE/78.1

1.5 It was agreed that the method of work of the meeting would be to hear presentations by national and WHO staff about their experiences in programme evaluation, to identify the issues that were of most concern, and to discuss these issues in group work. This should allow a search for methods to promote and improve programme evaluation; how best to use the process; what national mechanisms could be used for programme evaluation, the indicators that could be recommended and how staff could be trained in the skills of programme evaluation.

1.6 The participants agreed that its reflections and suggestions should be summed up in such a way as to be of value to others who had not attended the meeting and particularly for those who would have to take action in the light of the Group's recommendation. The Group agreed that it should be a report by the meeting, dealing with the application of health programme evaluation, rather than an account of the discussions as such.

2. EXPERIENCES IN HEALTH PROGRAMME EVALUATION

2.1 It was apparent from the discussion that the WHO Guidelines for Evaluation had found a reasonable acceptance with regard to the principles and general approach. There was, however, little information as to what extent they had actually been applied. One of the most useful functions of the Guidelines should be to stimulate countries to set their own process for evaluation in motion by adapting the proposed principles and methods to their own requirements.

2.2 The following section describes a variety of types or elements of "evaluation" that were reported by the national participants and WHO staff. It does not attempt to describe comprehensively the field of evaluation in general. The examples given were:

- Community health surveys
- analyses conducted as part of the planning process
- Mid-term evaluations of health development plans
- Special programme reviews
- Special studies
- Continuing or periodic monitoring

2.3 Community Health Surveys

Community health surveys had been undertaken either as separate activities or as part of larger evaluation efforts. They serve a variety of purposes:

- to determine the health status of the people, by medical examinations or more often by interviews with family members, which enquire into the state of health of the family at that time or over a recent period;
- to determine the extent of knowledge and the attitudes of people about health and health services;
- to discover the health practices of people, e.g. what do families do to preserve health, and, in general, what are their living conditions and how do these affect health maintenance;
- to discover which health services are used, the frequency of contact with health services when a disease occurs, and where people go if they are not satisfied.

2.4 Analyses conducted as part of the planning process

Two approaches that are sometimes overlooked, and which take place during the planning process, were considered by some participants to institute evaluation. They are:

- A situation analysis, which is part of the health planning and programming process. Generally, much information is collected and analyzed in the early phases of health programming. The analysis is directed towards defining health problems, identifying and analyzing current health policy, describing socio-economic development trends, reflecting the extent of current service delivery and identifying trends in resource availability and development.
- Obstacle or feasibility analysis is a component of the programming process. During this step, planning teams often visit peripheral services, getting first-hand information about conditions and soliciting the reactions of field staff to the proposals made as part of the project formulation.

Both of these kinds of analysis have the advantage of ensuring that the results will be used immediately in the ensuing planning steps.

2.5 Mid-term evaluation of development plans

With improved planning systems and better plans, particularly of the medium-term variety, increasing use is being made of mid-plan evaluation or mid-term review, mainly for two purposes:

- (a) to identify deficiencies in the existing plan and make corrections for the remaining period of the plan; and
- (b) as a basis for undertaking the preparation of the next plan.

A spectrum of approaches is employed of which two, representing the ends of the spectrum, are described here. They are the extensive mid-term review and a short, pragmatic assessment.

2.5.1 The extensive mid-term review

A mid-term review may be extensive in several dimensions. thus, it may be carried out at several levels of the health system, e.g. at the community level, at the level of the field health workers, at the health post level, at the district or provincial level and at the centre. Also, it may employ a variety of data-collection techniques, including reviews of records, structured interviews, the completion of written questionnaires by several types of staff as well as by members of the public, and the use of specially designed data formats for collecting and analyzing quantified data. The data collected usually pertain to:

Resources: the number and types of staff available, the number and type of facilities in use, the amounts of various types of supplies and equipment available, and the allocation of financial resources.

Implementation: the extent to which developmental activities have been carried out, in the sense of changing or expanding services and programmes. They include construction, training, legislation and the like.

Coverage and Accessibility: the extent to which services have been extended to the population and to which extent people have had access to them, e.g. the number of consultations, of in-patient treatments, and of various public health activities such as provision of water supplies, house spraying and case-finding. With regard to primary health care, the extent to which planned population coverage has been attained is considered.

Impact: there has been little experience in measuring health status or changes in health status because, it is claimed, baseline conditions are not known. Also, it is difficult to distinguish the impact on health of non-health-service developmental activities from that of health action. There has been some attempt to measure the impact of health programmes in terms of the increased awareness of the population about health practices and health services and changes in their attitudes towards them.

These extensive mid-plan reviews often require rather sophisticated analysis of data, including the use of computers. They are usually undertaken by a small technical working group, sometimes supported by investigators contracted from outside the health service or training institutions.

2.5.2 The short pragmatic mid-term evaluation

This is the other end of the spectrum of mid-term evaluation approaches that may be used. It is planned and carried out with a minimum of time, resources and staff. Such rapid reviews are generally carried out on an ad hoc basis. They mainly use existing data such as those contained in reports and records or which are available from past assessments, studies and surveys, and the opinions of staff from the various programmes at the different levels of the service.

The types of data employed in this kind of rapid evaluation are similar to those used in the more extensive evaluation. Thus, there is interest in resource availability, implementation progress and problems, service coverage and apparent impact on health. Analysis is directed towards reviewing existing quantified data, i.e. resources and services, in an attempt to detect trends. Group discussions are held in which problems and progress within each of the priority programmes may be reviewed by those who are responsible for them, as well as by those who are observing these programmes from the outside.

This type of review generally needs wide participation of staff. There may be a high-level steering group formed of the directors and directors-general in the Ministries of Health plus representatives of other agencies. Several working groups may be set up. These groups consist of staff from the programmes and from the central planning level, sometimes with outside observers, each group undertaking a review of a specific problem area or programme.

2.6 Special programme reviews

Another form of evaluation is that carried out periodically during the life of important centrally-managed programmes. For example, "vertical" programmes such as national malaria control, have periodic assessments in which national and international malaria specialists review the recent experience of the programme to determine if the programme strategy or the plan of action should be revised.

2.7 Special studies

Three types of special studies or assessments were described:

(a) Studies of special problems receiving the attention of decision-makers. Special study groups may be formed to make recommendations on the resolution of a specific problem. Examples are: the study of out-patient services in hospitals, the review of emergency transport systems, or the assessment of the performance of a particular category of staff such as midwives;

(b) Studies of the effectiveness of new interventions. Examples include controlled trials for determining vaccine effectiveness, studies of the effectiveness of new types of village health workers, or of providing immunization by paramedical workers who previously did not perform this task;

(c) Operational research studies - several countries reported extensive research into the way services are operating. Questions for such studies include how staff spend their time, how far people travel to contact health services, and what are the service utilization patterns in the country.

2.8 Continuous and periodic monitoring

As more countries are undertaking national health planning and programming, they are finding themselves in a better position to monitor progress continually in relation to their plans, and also to identify unplanned and unexpected outcomes. Reporting and information systems are now sufficiently developed in many countries to permit the following types of monitoring:

(a) Budget analysis: Are resources being allocated according to the plan, and, a more difficult question, are expenditures being made according to the budget ?

(b) Implementation progress: Have policies been written and promulgated, or necessary legislation prepared, revised and enacted ? Is implementation being carried out according to the plan and schedule ? With regard to facility construction, have sites been selected, has land been purchased, are the designs complete, have the construction tenders been submitted, has construction begun, is it complete and have the facilities been opened ? In relation to monitoring manpower development, have job descriptions been redefined, curricula redesigned, and necessary in-service training courses conducted with targeted numbers of participants ?

(c) Service output monitoring: Better planning means that clearer targets are set for service delivery. It is now becoming possible to narrow down the number of service activities that must be reported to the few that are felt to be most critical and most directly related to health improvement;

(d) Epidemiological surveillance: There continues to be interest in monitoring health situations of greatest concern, e.g. outbreaks of communicable diseases, and the utilization or abuse of drugs and medicaments.

2.9 An example of an approach to evaluating primary health care

Following the presentations by the national and WHO staff, a recent attempt to structure an evaluation methodology for primary health care was described.¹ It was designed as an entry point to planning for primary health care; this was suggested as a valid use of evaluation. As, very often, sophisticated methodology hinders evaluation, the approach was designed to be as simple as possible. It assumes that complete plans for primary health care are unlikely to be formulated from the beginning, that objectives must be developed progressively, and that detailed sequences of action cannot be predetermined. In most cases a process is beginning which must evolve with experience over time, and frequent evaluation, as illustrated by the study mentioned above, should facilitate the progressive evolution of primary health care.

The study² deals seriatim with the following five primary health care principles, which are to be translated into specific operational objectives:

¹Susan Cole-King: Approaches to the Evaluation of Maternal and Child Health Care in the Context of Primary Health Care, WHO Document HSM/79.2.

²The section of the study that summarizes in matrix form questions of accessibility and coverage is attached as Annex II.

- major emphasis must be placed on accessibility and coverage;
- PHC is to foster overall development - development of the individual, the community and the country;
- PHC is to be integrated with, and supported by the health system;
- cost feasibility is to be a primary concern;
- priority should be given to sound technical approaches.

The study poses questions for determining whether the above five principles are being applied. Each question is divided into subquestions; after each subquestion are listed the types of information or indicators that are required; then methods of obtaining this information are briefly summarized. The study presents a concise overview of the evaluation methodology. The sequence of steps to be undertaken in such an evaluation effort, which conform in a general way to the steps outlined in the Provisional Guidelines for Health Programme Evaluation¹, were listed as follows:

- (a) determine why an evaluation is required;
- (b) define the questions to be raised and set priorities for these questions;
- (c) to identify the information needed to answer the questions;
- (d) design and carry out the information collection;
- (e) analyze the collected information;
- (f) make a judgement based on the analysis and draw up recommendations;
- (g) use the recommendations for introducing change or communicate this judgement to decision-makers for action.

Important questions that arise in connexion with such an evaluation pertain to how the effort should be organized, how to achieve balance between evaluation at the different levels of the system starting from the periphery, and how to stimulate interest in, and support for the evaluation effort.

3. DIFFICULTIES ENCOUNTERED IN APPLYING EVALUATION

3.1 From the presentation by the participants of their experience in programme evaluation, three general issues were identified. The first pertains to the orientation, interests, attitudes and behaviour of those who are concerned with, or affected by programme evaluation. The second consists of problems related to the organization and approach for undertaking programme evaluation. Issue three pertains to evaluation methodology and related subjects.

3.2 Problems related to orientation, interests, attitudes and behaviour

It was pointed out that factors pertaining to behaviour and attitude often tended to prevent the acceptance of programme evaluation.

3.2.1 In general, staff of national health services and of WHO have not been encouraged to adopt the critical attitude, including that of self-examination, that is necessary for

¹ Document HPC/DPE/78.1

successful evaluation. There is often a lack of motivation to evaluate. This may be partly because it is not always clear what the evaluation is to serve and what decisions are to follow the outcome of evaluation. Its usefulness for improvement of future action is often not recognized. Responsible decision-makers were said to be less interested in evaluation results on the whole than were others such as technicians, researchers, and staff of external support agencies, who would, of course, be less affected by any consequences of evaluation.

3.2.2 Evaluation was too often interpreted in terms of success or failure rather than as a means of realizing potential for improvement. Often, the time needed to achieve results was under-estimated. Negative attitudes towards evaluation had the effect that not enough resources or staff time were allocated for evaluation purposes. This then became a constraint to evaluation.

3.2.3 Decision-makers may not be in a position to use the results of evaluation by making corrections or changes in a programme, because of political constraints, or because of a personal commitment to an existing approach, or because of psychological reasons or prestige.

3.2.4 Top-level decision-makers were often enthusiastic when evaluation was first proposed but, not uncommonly, their interest waned in the face of day-to-day problems that arose during evaluation. The technical staff engaged in evaluation may find themselves suddenly confronted with a variety of competing demands on their time. The evaluation may then be carried out by expatriate staff, with the result that the national character of the effort and national interest in its results are lost.

3.2.5 Another dimension of the problem occurs at the peripheral level. Effective evaluation must extend to the levels at which the people and the service come into contact. But it is difficult to interest field staff in sincerely participating in evaluation if they have nothing to gain from the efforts. Besides, form-filling for evaluation purposes can take up an excessive amount of staff time (up to 40 per cent was reported to the meeting).

3.2.6 The question of the use of external evaluation rather than the staff of the programmes being evaluated was discussed extensively. Obviously, external evaluators, often from outside a country, will have to spend much time becoming familiar with local conditions. Also, if they report their findings without taking cultural and political factors into account, they may find themselves and their results being discredited. However, the external expert can function positively as a catalyst and advise in the evaluation approach.

3.2.7 The question was raised several times of whether it would be better to employ specialists in evaluation who could apply sophisticated methods to a variety of programme areas, than generalist public health administrators whose training in evaluation had not reached specialist level. It was considered that evaluation should be a component of the training of all public health workers, but that in certain circumstances or for special purposes, health administrators might find it useful to employ a specialist in the evaluation of a specific field to provide guidance on how to undertake the intended evaluation.

3.3 Issues and problems relating to the organization and approach for undertaking programme evaluation

The following observations were made:

3.3.1 From the experience reported it was not clear whether programme evaluation is better served by an extensive, if temporary, organization and structure than by a more modest effort with a small, capable working group. Some countries had established high-level steering committees and various programme evaluation working groups, in a manner similar to that employed for their health sector programme planning. It is not clear which is the more acceptable and the more likely to produce the best results.

3.3.2 As has been previously mentioned, for specific evaluation studies there usually are no budgetary provisions for such costs as travel, administrative support or document preparation.

Consequently, these studies often depend on external funding and are unduly influenced by outside agencies. Such interference may take the form of bias and pressure with regard to the design of the effort, the way it is carried out, and how the results are used and disseminated.

3.3.3 Due to their own obligations vis-à-vis their governing bodies, external funding agencies tend to expect national administrations to extend the scope and adjust the approach of evaluation, in order to obtain information they need for these governing bodies; this tendency is aggravated if these agencies are the main providers of funds or other resources for the activity being evaluated.

3.3.4 Much evaluation, particularly in relation to large-scale undertakings, is affected by lack of consistent and continuing technical direction. Frequently, the interested people who launched the effort and participated in its design are transferred to other duties before it is completed; this disrupts continuity and hinders the achievement of its original purposes. Technical staff are also liable to be transferred in and out of the activity which may cause the original design to be modified or original purposes to be overlooked, due to revisions in approach or emphasis.

3.3.5 Quite apart from the delays that are caused by administrative difficulties there is a tendency to underestimate the time needed for evaluation. Consequently, the results are often received too late to be used and the original purpose of the evaluation cannot be met. An example would be the assessment of the performance of a particular category of staff such as nurses or village health workers, in order to guide the revision of a curriculum. The evaluation may not be completed before most of the staff have been trained, and it is then too late to use the information for the intended curriculum revision. Another example is an evaluation to guide a programme revision in the middle of a plan period or as an input to the preparation of a five-year plan. Frequently, the information needed is not available when the planning or replanning is undertaken, and the purpose of the evaluation is thus not served.

3.3.6 One of the administrative/organizational difficulties cited is that the staff assigned to carry out a specific evaluation are frequently given such assignments as additional duties and are burdened with other full-time jobs, which prevents them from devoting their full attention to what is a difficult undertaking.

3.3.7 A problem arises when a health administration is unable to implement changes indicated by evaluation because the staff whose performance is to be modified does not come under the control of the Ministry of Health. They may, for example, be employed by public works, a municipality or come from the private sector. This may also apply to Ministries of Health themselves, due to lack of proper supervisory mechanisms at all levels of the services.

3.3.8 One specific problem is encountered when important service activities are being shifted from vertical programmes into integrated health services. The reporting and control systems of the vertical programmes are not found in the health services, thereby creating problems for continuing monitoring and evaluation in a consistent manner.

3.4 Problems in evaluation methodology

The following problems were identified:

3.4.1 Difficulty is encountered in communicating the results of evaluation so that problems, findings and recommendations can be reported openly and completely, and yet be accepted and acted upon by decision-makers.

3.4.2 Methods for setting priorities for evaluation are not well known. Also there is a tendency for evaluation specialists to concentrate on programmes or projects of special interest to themselves. There is also a risk that only projects that are easily measurable are evaluated.

3.4.3 Another problem is the tendency on the part of health administrations to refrain from undertaking small-scale simple evaluation, apparently for fear of being criticized by experts. This hesitation is further aggravated by the interest of donor agencies in larger-scale evaluation.

3.4.4 Although change must be measured over time, the longitudinal studies that this demands are difficult and expensive. The possibility of integrating evaluation into the current and developmental activities should be fostered in order to accommodate this need for longitudinal review.

3.4.5 Particular difficulties were reported in connexion with attempts to evaluate primary health care. This is partially due to the broad range of activities covered by primary health care and because its objectives and approaches are evolving with time. However, for these same reasons, evaluation is seen as especially important in this area.

3.4.6 Monitoring and evaluation at the community level are difficult to carry out and tend to be costly. This problem deserves considerable research and development. Many health administrators are not interested in assessing the health status of their communities because they consider that they know it sufficiently and that it is more appropriate to concentrate on the extension of service coverage.

3.4.7 With regard to the adequacy of documentation and guidelines on evaluation, it is felt that there is too much material to be read and understood by health administrators, that much of it is at too conceptual and general a level, that it is far too comprehensive to be of immediate value, and that it lacks practical illustrations that practitioners need as guidance for undertaking evaluation. The best guidelines are those that result from experience, but they should be presented as a starting-point or a framework within which innovation based on application is facilitated. There was some concern that too much attention was being devoted to methodology development, and not enough use being made of existing methods; some participants felt, however, that the more people engaged in developing their own adapted methods by following some general principles, the better would be their understanding of the process of evaluation.

3.4.8 Routinely available data are often of poor quality and unreliable and therefore unsuitable for evaluation purposes. Information systems often do not provide the information needed for evaluation purposes.

3.4.9 Information systems often function on the basis of data supplied by field staff who are not informed about the purpose of the reports and forms they are asked to submit. There may be a lack of coordination between the people who design the forms, those who ask for the reports, those who use the information and those who brief field staff. All of this leads to a rather ritualistic and misdirected information-gathering effort that produces "data graveyards" - stacks of unusable reports. When there is no feedback to field workers, they tend to develop a lack of concern or even negative attitudes about reporting.

3.4.10 In general, it is clear that national administrations are making progress in improving their information systems. However, this process takes time, and very often it is the subject of a specific project included amongst the other priority projects in a health plan. It is unlikely to find, by the mid-point in the plan period that information systems are sufficiently improved to enable satisfactory evaluation of the other programmes that make up the plan.

3.4.11 The issues of sampling methodology and statistical techniques are crucial for both large and small-scale studies which are carried out for evaluation purposes. Sampling methodology should take into account that information-gathering is not a goal in itself and hence the level of sophistication should correspond to the degree of precision ultimately require in the analysis. Also, the frequently misguided aim of attaining a high degree of precision leads to unnecessarily extensive surveys that cost too much in money, effort and time when much less precision would serve the purpose.

3.4.12 There is some difficulty in assuring consistency in survey methods when more than a few interviewers are used for data collections. This can be alleviated by careful group briefing of interviewers and design of questionnaires.

3.4.13 Community surveys and interviews are frequently hampered by the need to use investigators from outside the community. Their acceptability is thereby lowered, and occasionally they are accused of having ulterior motives for collecting data.

3.4.14 There is a tendency for questionnaires to be too long, and for guidelines and data formats to be too intricate and detailed, thus increasing the time and the cost of using them, and the risk of non-response. Questionnaire design is often constrained by its being drafted by strangers to the country or area and in non-local languages. Translation then is liable to lead to misinterpretation and defective design. This problem can be aggravated by the variation that is found among and within countries in regard to certain concepts like time and distance, and which is not always taken into account by those who design studies.

3.4.15 Sometimes there is no clear plan for data analysis after data has been collected. Difficulties often arise when an attempt is made to analyze data away from the area or country in which it was collected, e.g. when quantified data are sent abroad for computer analysis.

3.4.16 Sometimes evaluation data are used as scores allocated to health workers or programmes as if there was competition for the highest level of success or impact of an intervention or a programme. The reasoning behind such a competitive approach is rarely appreciated by the staff concerned, and it may lead to resentment rather than to a determination to improve.

3.4.17 While it would be useful to publish or exchange information about national evaluation experience, those who have such experience rarely have time to write it up.

4. IMPROVEMENTS IN APPLYING HEALTH PROGRAMME EVALUATION

The suggestions for dealing with the issues and problems of health programme evaluation are presented here under the same headings as those used in Section 3 for describing issues and problems that arise in evaluation.

4.1 Orientation, interests, attitudes and behaviour

4.1.1 Field workers are more likely to be positive about evaluation if they participate in the planning and design of activities, and thus become identified with the proposed new programmes and services. Also, good work on their part should be acknowledged by their supervisors so that they may be rewarded by the satisfaction that comes from work well done. Evaluation should not have the effect of drawing attention only to their shortcomings; successes should be highlighted and the findings fed back to the field and widely disseminated. Staff would then look forward to seeing the results of evaluation of their work. Communities should be made aware of good work done by their health workers.

An important incentive for field staff is the opportunity to improve their skills and to advance professionally by means of continuing education.

4.1.2 Field staff can be supported also by providing them with guidelines and procedural manuals in a form and language they can understand and use; this can be reinforced by group educational activities and by competent, supportive supervision.

4.1.3 The benefits and the potential of sound, practical evaluation should be made clear to key people at the top, including politicians, as well as to those at the senior technical level who can see ways of using evaluation results purposefully. This can give an impetus to evaluation that can be communicated down through the hierarchy to the periphery, becoming

increasingly specific but consistently reflecting the administration's interest.

4.2 Organizational aspects of evaluation

4.2.1 WHO should foster maximum participation of programme staff and of communities in planning programmes. Evaluation should be recognized by them as an integral part of planning and management through which evaluation findings are transformed into actions and improvements.

4.2.2 At the same time, sound processes for health planning, programming, formulation, implementation and evaluation, should be promoted and further developed. A "grass root" participation in these processes will be an effective way to bring about improvements through evaluation.

4.2.3 Specific resources for evaluation purposes should be allocated in all priority programmes; this should include not only funds but also staff time. WHO, it was suggested, should allocate resources to support national health programme evaluation.

4.2.4 Particularly within WHO, the tendency for evaluation to be seen as a separate managerial function, with its own specialists and methods, should be countered. Programme evaluation should be coordinated with the managerial processes for policy analysis, programme development and implementation, and information systems development.

4.2.5 With regard to the use of specialist rather than generalist evaluators, one point of view is that evaluation specialists are needed to continue developing methodology as this takes some degree of expertise. At the same time, a certain level of competence in practical and simple methods of evaluation should be expected of a wide spectrum of health workers.

4.3 Development of evaluation methodology

4.3.1 National administrations could well apply evaluation during the developmental and early implementation and operating period of a plan to identify managerial and operational problems that beset priority programmes.

This could be done by means of workshops, annual meetings and conferences, and other contacts between managerial and operating staff. Not only would real problems come to light and solutions be suggested, but also a continuing atmosphere of self-examination would be created, which would encourage continuing evaluation. In the sequence of evaluation, the earliest activities should be concerned with monitoring and controlling the implementation of activities and with service efficiency. Studies of effectiveness and impact would then come later.

4.3.2 One way of developing methodology for evaluation is to address specific programmes that are of high national priority, such as diarrhoeal disease control and an expanded programme on immunization. Another way is to start with clear-cut programmes that have reasonably straightforward interventions and are therefore amenable to relatively simple evaluation. EPI is, again, a good example, and the provision of basic sanitary measures is possibly another.

4.3.3 Much of the basic information for monitoring and evaluation comes from communities and villages, and could with advantage remain at this level. If a few indicators are selected to measure change in health status and to monitor the delivery of elements of PHC, it may suffice that the community health workers record the information needed for those indicators and keep it there, primarily for their own use. This information contained in registers at the village level could then be sampled as needed for use in summarization and analysis at higher levels. It would be up to health service supervisors to visit villages and communities to pick up this information, and to take advantage of such visits to provide the supervision and support that is not available when peripheral services are rarely visited.

Improvements may also be achieved through lay reporting of health information.

4.3.4 Evaluation should be kept simple, confined to subjects of limited scope, and so arranged that results can be obtained relatively quickly and with minimum investment. Therefore, evaluation proposals and protocols should be scrutinized critically with the aim of reducing the length of questionnaires, the size of data formats and the length of interviews to the essential minimum.

4.3.5 The time allowed for planning and designing surveys should be limited, and clear target dates should be set. Those who are to receive the results should be told clearly when they can expect the results and how they will be presented. Supervisors should see that those who are assigned to such work are free to devote to it the time needed to complete it.

4.3.6 Before evaluation begins, evaluators and decision-makers should reach a clear understanding about the decision options that are likely to emerge from the outcome of evaluation. Decisions and actions might be needed at several different hierarchical levels. Too often, it seems, no decisions are taken and there is no prospect of change. When that is the case, evaluation should not be undertaken, because of the effects that inaction would have on the attitudes of those who were engaged in the evaluation effort.

4.3.7 The analytical methods to be applied in any evaluation effort should be within the capability of the country and that data need not be sent abroad for analysis.

5. TRAINING FOR EVALUATION

5.1 The meeting discussed training in the context of the issues and problems that it had identified, and their solution. It was recognized that training is needed to promote evaluation as an integral component of health management and to bring about favourable attitudes to evaluation on the part of health administrators and other health workers, to equip health workers with the skills they need to perform evaluation, and to enable health managers and other decision-makers to use evaluation results.

5.2 The problems for which training in evaluation might provide a solution should be defined and analyzed so that suitable educational strategies may be designed to deal with them. Examples of such problems and recommendations for educational strategies to deal with them are the following:

5.2.1 The long-term educational solution is to make training in evaluation an integral part of basic management training, to make general training in evaluation available in the continuing education of health managers, and to train managers as the need arises in the specific skills they require when programme evaluation is being introduced.

5.2.2 There is a tendency for health administrators to overlook the potential and actual contributions of other sectors to health. As the health sector is only one of several sectors with responsibilities for peoples' health, especially for primary health care, training in health management should equip managers to interact productively with their counterparts in the other sectors.

5.3 Certain conditions should be observed in connexion particularly with the training of health workers to undertake evaluation activities by, for example, short intensive courses, workshops, etc. Thus, as far as possible, technical responsibilities for evaluation should be assigned and the activity concerned should be ripe for evaluation before embarking on the training required. In organizing training in evaluation adequate attention should be paid to administrative and logistic arrangements. At the same time, health administrations must ensure that supervisors are well aware of the nature of the work to be done and that they exercise their supervisory function in a way that reinforces the training that the health workers have received.

5.4 With regard to training methods and settings, the closer training is integrated with the performance in practice of the skills to be learned, the more effective it is likely to be. Training is not a one-time-only activity. Countries need to build up their own training capabilities and be ready at any time to support evaluation, e.g. by means of short intensive training activities associated with actual evaluation efforts at the field level.

5.5 The potential role of National Health Development Centres in training for evaluation

The concept of national health development centres was briefly discussed in relation to training in evaluation. These centres were being proposed to develop and support the application of the national health development process, managerial aspects of primary health care and related health services research. A "Centre" would take the form of a network of resources rather than a central institution. It was recognized by the meeting that such centres could do much to develop programme evaluation as an integral element of national health development, and that one of its functions would be to train staff in the evaluation process as an integral part of the managerial processes for national health development.

6. INDICATORS FOR MONITORING AND EVALUATING PROGRESS TOWARDS ATTAINING HEALTH FOR ALL

6.1 The meeting noted the comments on indicators contained in World Health Assembly Document "Formulating Strategies for Health for All by the Year 2000".¹ It took note also of previous work by WHO on indicators for monitoring and evaluation (various background papers and a working paper were available to the meeting) as well as of the work of the other international organizations and of national governments. What is needed at this stage is the selection of key indicators for the overall assessment of progress towards health for all, and for particular problems and levels of operation. In addition, much attention has to be given to the improvement of methods of obtaining the required data and of ensuring their representativeness.

6.2 Participants concluded that they could not in the time available, select actual indicators for use in a large variety of conditions. They preferred to concentrate on criteria for selecting indicators. Illustrative examples of indicators, derived from background and working papers, as well as from the discussions are given in the text of this report and its annexes.

6.3 As regards classification, it was thought useful to distinguish between (a) indicators of health status and determinants of health, and (b) indicators of health services, including accessibility and coverage.

6.4 Indicators should be appropriate to (a) different levels of operations, e.g. the local as distinct from the national level, (b) varying conditions and levels of socioeconomic development, including health development, and (c) the variety of conditions within a country, with particular attention to underserved and disadvantaged socioeconomic and geographic groups. The identification of such groups, and the monitoring of their health status and of their access to health care, often pose particularly difficult problems of concept and of data collection. Indicators should be realistically based on a country's capacity to obtain the data.

6.5 The following comments were noted in respect of each main area of application:

1

Document A32/8, Formulating Strategies for Health for All, Thirty-second World Health Assembly, Geneva, 1979

6.5.1 Indicators of health status: These might include commonly used indicators such as: age-specific mortality including infant mortality and mortality of children aged one to four years, maternal mortality and neonatal mortality, mortality from specific diseases (that would vary from country to country); morbidity from a country's most prevalent diseases; and nutritional status as measured, for example by weight for height, or height for age, or the upper arm circumference of young children. Birth weight was suggested as a valuable indicator. In principle it was considered to be easier to measure birth weight in a representative sample than to measure infant mortality. However, some practical difficulties of collecting this data in a number of countries were noted.

6.5.2 The number of indicators for overall health assessment in a country should be small, for the sake of practical convenience. Additional indicators and variations in selection might be introduced in connexion with specific health programmes and projects. The principle might be applied of selecting a very short list of two or three indicators for universal national and international usage, and then for the countries to add further indicators in line with (a) available means of data collection and analysis, and (b) specific health conditions and priorities. A list of indicators of health status graded to correspond approximately to ascending levels of socioeconomic development is given in Annex I. It was emphasized that this list, as well as the examples in the text, are illustrative only at this stage.

6.5.3 Indicators of health services, including access and coverage: The meeting noted the usefulness of the concepts of access and coverage, access being defined as a general framework of facilities, staff, etc. per 10 000 population or per square kilometre and such factors as distance, means of transportation, cost, cultural acceptability and equality for all sections of the population; and coverage as referring to specific interventions for which target groups have been defined. For example, the coverage of immunization above can be indicative for the coverage by maternal and child health services and the level of health education or health consciousness of the people.

6.5.4 To evaluate primary health care, specific indicators should be devised as appropriate for each of the eight elements of the Alma-Ata Declaration on Primary Health Care, namely: "education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition; adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of local endemic diseases; ¹ appropriate treatment of common diseases and injuries; and provision of essential drugs".

6.5.5 The choice of indicators to be used and the corresponding information needed would depend on the priorities accorded to these elements of primary health care in each country and on the health strategies adopted. The information requirements would vary according to the level of the health system at which the evaluation would take place, whether this was local, regional or national. Thus, an example of an indicator at the national level might be the proportion of the total population provided with safe water in their home or within a short (defined) distance of it. Information required at the local level might take into account such factors as seasonal variation in water supply, cost to the consumer and degree of purity, depending on local conditions. Further examples of the kind of information required for in-depth studies of accessibility and coverage were provided to the meeting and are contained in Annex II.

1

Declaration of Alma-Ata, Article VII, item 3 in: Primary Health Care, "Report of the International Conference on Primary Health Care," Alma-Ata, 1978, WHO, Geneva, 1978, p.4.

6.5.6 Indicators for measuring the effect of certain strategies to achieve better access and coverage of the population with health care might be in the form of ratios of various types of health workers including community health workers assigned to a given number of people, for example one community health worker to 2000 people, one doctor to 25 000 people. The significance of changes in these ratios would require careful examination in the context of national and local conditions.

6.5.7 On the question of feasibility of indicators in general, the meeting noted that most developing countries do not at present compile or use such indicators. However, in most cases useful data was available also in the periphery, which could be systematically exploited. Other remedies could also be found along the following lines: estimates of general magnitudes are required in most processes of decision-making, rather than a high degree of precision; further work should be done to improve and rationalize methods of data collection. Innovative methods should be sought. More systematic use might be made of information available at the local level, including the use of auxiliary health personnel and key respondents in communities as a source of information.

6.5.8 It was noted that data coverage was more complete for populations supplied with health services, especially conventional services, than for underserved populations. Therefore, it would be misleading, in the case of countries where significant proportions of the population are unserved or underserved, to use only indicators that derive their data from records based on services.

6.5.9 Burdening of the peripheral staff with forms and reports should be avoided as much as possible in connexion with indicators, as for other purposes.

7. CONCLUSIONS AND RECOMMENDATIONS

In order to foster the application of the evaluation process, the following conclusions and recommendations are made:

7.1 In order to make evaluation an integral part of the national health development process on the one hand, and of the WHO Programme Development Process on the other, a concise set of guidelines should be made available by WHO separately for each of these two processes, including guiding principles for evaluation.

7.2 On the basis of these guiding principles for evaluation, programmes should be induced to prepare specific materials, including relevant indicators for the evaluation of these individual programmes. WHO should foster and support in countries the application of these methods to specific programmes (e.g. Expanded Programme on Immunization, Primary Health Care, etc.).

7.3 The Organization, while supporting countries in carrying out primary health care and its evaluation, should prepare or collaborate in preparing guidelines and descriptions on the basis of experience gained; it should also encourage joint national WHO-UNICEF Primary Health Care study teams to undertake in-depth studies of health development efforts at the country level.

7.4 The application of evaluation is mainly a national task. Therefore, mechanisms such as National Health Development Centres should be supported by WHO among other things in order to initiate and strengthen evaluation activities in the context of national health development.

7.5 In order to counteract the present shortage of skills and competence of national and WHO staff in dealing with evaluation, all opportunities should be taken to foster training in evaluation, particularly at country and regional levels. WHO should produce teaching and learning materials, based on national experience. Training activities should be:

- (a) part of training activities in health management, which should be included in the basic training of any health workers;
- (b) part of certain special short-term introductory courses in the application of evaluation and, particularly,
- (c) part of guidance given to "on-the-job" activities for evaluation;
- (d) part of the function of National Health Development Centres and any other suitable network of institutions, which may be used intensively for training national and WHO staff in the application of evaluation.

7.6 WHO Regional Offices should specifically allocate resources for the support of evaluation of national health programmes. In addition, WHO collaborative programmes should contain provisions for evaluation, possibly beginning with one intensive effort in order to generate the basis for subsequent ongoing evaluation.

7.7 WHO should support countries in setting up practical health information systems which respect the principle that information should be kept at the level where it is needed.

7.8 In the overall context of national health programme development and of formulating strategies for health for all, Regional Offices should use any entry point for promoting the application of evaluation. Headquarters should provide any necessary support to the Regional Offices in these efforts.

7.9 For measuring progress in attaining health for all, a practical, illustrative list of indicators for measuring health status and for evaluating health services, including access and coverage is required. The Organization should make all efforts through a crash programme to provide this illustrative list for use and adaptation by countries.

7.10 Practical experiences and results of the use of indicators in evaluating specific programmes should be shared between countries, in order to demonstrate the usefulness of programme evaluation. WHO should therefore:

- (a) encourage the write-up of national personnel of evaluation experiences; if necessary, provide support and guidance for such efforts; and assist in obtaining access to national and international publications to achieve wide dissemination;
- (b) facilitate the publication of such descriptions in international journals for wide distribution. For example, the planned WHO journal "World Health Forum" should be used for this purpose.

INDICATORS OF HEALTH STATUS - ILLUSTRATIVE EXAMPLES

1. The following is an attempt to present a short list of indicators based on two premises: (a) that the health conditions of most countries, developed and developing, can be described in part by a few common indicators which could also be used for evaluating national health status and for cross-national comparison or global monitoring, and (b) that a graded list of indicators could be useful from which a country could select those that are appropriate to its socioeconomic status. Each country can, therefore, use the common list as well as a few indicators characteristic of its own situation. It need not employ indicators appropriate to other countries and other conditions. On the contrary, each country would select indicators suitable to its particular developmental conditions and to the means at its disposal for collecting and analyzing the relevant data. It is stressed that approximate values are adequate if precise values cannot be readily obtained.

2. The indicators listed are intended for monitoring progress towards health for all at the national level, and with particular emphasis on improved health for the hitherto underprivileged and disadvantaged groups within countries. Additional indicators may be required to monitor and evaluate programmes dealing with specific health problems in a country.

3. GRADED LIST: INDICATORS OF HEALTH STATUS

These indicators are listed in an order that may correspond to ascended levels of socio-economic status and the graduation leads from endemic diseases, via infective/parasitic diseases to non-infective diseases.

3.1 Common list

- Infant mortality rate¹
- Life expectancy at birth¹
- Crude death rate (if no data available for life expectancy).

¹

Following a study of the United Nations Research Institute for Social Development, the infant mortality rate and life expectancy at birth show a close correlation with each other and with indicators of economic development as illustrated in the table below:

Gross Domestic Product per capita, 1970 (US \$)	Energy, apparent consumption per capita, 1970 (kg. of coal equiv.)	Infant mortality rate, 1970	Life expectancy at birth, 1970
77	13	155	41
201	149	132	47
339	314	107	52
460	571	77	57
722	1151	58	62
1043	1979	41	68
1524	3081	32	69.6
2060	4179	25	70.6
2614	5295	21	71.4
3178	6415	16	72.2
3770	7503	13	73.0

(United Nations Research Institute for Social Development (UNRISD), Research Data Bank of Development Indicators, unpublished figures). The table gives national levels of infant mortality and life expectancy that have been found to correspond empirically to different levels of the Gross Domestic Product (GDP) and energy consumption, around 1970.

3.2 Selective list

- Infant mortality caused by diarrhoea, neonatal tetanus
- Disease-specific mortality from selected infective or parasitic diseases of major public importance in the country
- Incidence and/or prevalence of diseases of major public health importance in the country

- Indicators of nutritional status, e.g. weight for height, height for age, the upper-arm circumference of young children
- Birth weight (a potentially useful indicator in some countries or areas where there are still practical difficulties in collecting data)

- Death rate of children from 1 to 4 years of age or in 2nd year of life (Reflects combined effect of infection and under-nutrition)
- Incidence of infections and parasitic diseases associated with environmental hygiene

- Mortality from non-infectious diseases, such as cerebro-vascular accidents, acute myocardial infarction and cancers
- Incidence and prevalence of non-infectious diseases, such as hypertension, cancers and mental disorders
- Road accident rates
- Rates of other types of accidents, such as burns, and of violence

- Rates of suicide and crime
- Disease due to drug abuse, alcohol consumption and smoking.

PRIMARY HEALTH CARE:

"ACCESSIBILITY AND COVERAGE"

- Illustrative Questions for
Evaluation

Excerpt from: Susan Cole-King,

Approaches to the Evaluation of
Maternal and Child Health Care
in the Context of Primary Health Care

WHO Document HSM/79.2 (Appendix 9,
pages 65, 66 and 67)

PHC PRINCIPLE NO. 1

Questions for evaluation - suggested framework for development of evaluation guidelines - Accessibility and Coverage

Main Question	Sub-Questions	Information Required	Methods of Obtaining Information
1. Are health services accessible to those in need?	<p>1) What kinds of services to be accessible?</p> <p>2) How is accessibility defined for each service? (e.g. MCH care, environmental sanitation and water, first level medical care and first aid, referral, etc.)</p>	<p>1) Health needs assessment to identify appropriate intervention for particular groups or problems</p> <p>2)(a) Current utilisation patterns of existing services (characteristics of users, e.g. age, sex, morbidity, distance travelled, time taken, frequency of use and attitudes to services, etc.)</p> <p>(b) Characteristics of non-users and reasons for non-use</p> <p>(c) Comparison of characteristics of users and non-users to base population</p> <p>(d) Referral facilities and logistics and mechanisms for referral</p>	<p>1) Community survey/epidemiological assessment (refer to guidelines for health needs assessment - to be developed)</p> <p>2)(a) In-depth observational studies at health facilities with sample of patients and/or follow-up at home</p> <p>(b) Community household questionnaires sample</p> <p>(c) Data from census or socio-economic surveys</p> <p>(d) Interviews with staff and patients/observation, etc.</p>
3) What % of the population in need of specific services have access to this?		<p>3) The population distribution in relation to specific service or delivery contact points</p>	<p>3) Collect information on services provided, where and how often, from health system information system or survey of health facilities</p> <p>- Census data to calculate % of relevant population groups (e.g. under-fives, women aged 15-45) within specified distance (or travelling time)</p>
4) How effective is the referral system?		<p>4) The average time taken from decision to refer in an emergency to arrival at referral centre</p> <p>- % of patients referred and reasons for referral</p>	<p>4) Interviews with staff, patients and community members</p> <p>- Data from health service records at peripheral and referral facility for numbers and reason for referral (and possibly time taken, etc.)</p>

(continued)

PHC PRINCIPLE NO. 1 (continued)

Main Question	Sub-Questions	Information Required	Methods of Obtaining Information
1. (continued)		<ul style="list-style-type: none"> - Costs to patients (relate to average/minimum daily/weekly income) - Numbers referred in non-emergency, who actually report to referral centre 	
2. Are other factors necessary for health accessible?	<ol style="list-style-type: none"> 1) Is adequate food or land available to poorer families and/or income for purchasing food? 2) Is clean water accessible? 3) Is adequate housing accessible? 	<p>Columns 3 and 4 will require further detailed work before they can be completed. But information on food, land, incomes, housing and water can be obtained from surveys or hopefully simpler methods to be developed for rapid rural appraisal using a variety of techniques (see papers by Paul Richards and David Barker in IDS Bulletin, Rural Development: Whose Knowledge Counts?, Vol. 10 (No. 2) 1979 and Report of RRA Workshop held at IDS Sussex Oct. 1978 from R. Chambers, IDS).</p>	
3. Are health services utilised by those in need of them? (Are they 'covered' of services for particular services?)	<ol style="list-style-type: none"> 1) What are current health practices? Who needs what kind of services? 2) Do they get it? 3) Is the level, or intensity of use appropriate to need? 	<ol style="list-style-type: none"> 1) Health needs assessment 2) Number of individuals (or communities) coming into contact with particular services (including specified referral services) 3) Rate of utilisation 	<ol style="list-style-type: none"> 1) Community survey/epidemiological assessments (see guidelines) 2) Health system records and returns (e.g. first antenatal visit, children immunised, etc.) 3) Health system records or household survey as 1) and 2) above
4. If services are accessible but not utilised, what are the reasons for non-utilisation?	<ol style="list-style-type: none"> 1) Are there barriers to utilisation, e.g. cost, social acceptance, irrelevance of services to perceived need, ignorance, attitudes of health worker, etc. 2) Is alternative health care available and preferred? 	<ol style="list-style-type: none"> 1) Reasons for non-utilisation 2) Alternative health care practices, e.g. use of 	<ol style="list-style-type: none"> 1) and 2) Community study - household interview/questionnaire or (less useful) Interviews with health system users on attitudes to services and alternative sources of health care used by them or their families, under what circumstances
(continued)			

PHC PRINCIPLE NO. 1 (continued)

Main Question	Sub-Questions	Information Required	Methods of Obtaining Information
4. (continued)	3) Are there problems in referral, and if so are they related to logistics, cost or other factors?	traditional practitioners, self-care, drug peddlars, etc. 3) Obstacle to use of referral facilities (see 1.4 above)	3) Interviews with community members, staff and patients (see above)

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