

13. **Hollenberg, N.K. et al.** Sodium intake and renal responses to captopril in normal man and in essential hypertension. *Kidney international*, **20**: 240-245 (1981).
14. **Singer, D.R.J. et al.** Sodium restriction in hypertensive patients treated with a converting enzyme inhibitor and a thiazide. *Hypertension*, **17**: 798-803 (1991).
15. **Morgan, T.** Interaction of pharmacological and non-pharmacological therapy. *Hypertension*, **17**: 804-805 (1991).
16. **Weinberger, M.H. et al.** Dietary sodium restriction as adjunctive treatment of hypertension. *J. Am. Med. Assoc.*, **259**: 2561-2565 (1988).
17. **Luft, F.C. et al.** The utility of overnight urine collections in assessing compliance with a low sodium intake diet. *J. Am. Med. Assoc.*, **249**: 1764-1768 (1983).
18. **Cohen, S.J. et al.** The effect of a household partner and home urine monitoring on adherence to a sodium restricted diet. *Soc. sci. med.*, **32**: 1057-1061 (1991).
19. **Morgan, T.O. & Anderson, A.** Interaction of slow-channel calcium-blocking drugs with sodium restriction, diuretics and converting enzyme inhibitors. *J. hypertens.*, **6**(suppl. 4): S-652-S-654 (1988).
20. **Morgan, T.O. et al.** Paradoxical effect of sodium restriction on blood pressure in people on slow-channel calcium-blocking drugs. *Lancet*, **1**: 793 (1986).
21. **MacMahon, S.W. et al.** Obesity, alcohol consumption and blood pressure in Australian men and women. The National Heart Foundation of Australia Risk Factor Prevalence Study. *J. hypertens.*, **2**: 85-91 (1984).
22. **Reisin, E. et al.** Effect of weight loss without salt restriction in the reduction of blood pressure in overweight hypertensive subjects. *New Engl. j. med.*, **298**: 1-6 (1978).
23. **Rocchini, A.P. et al.** The effect on weight loss on the sensitivity of blood pressure to sodium in obese adolescents. *New Engl. j. med.*, **321**: 580-585 (1989).
24. **MacMahon, S.W. et al.** A randomized controlled trial of weight reduction and metoprolol in the treatment of hypertension in young overweight patients. *Clin. exp. pharm. physiol.*, **12**: 267-271 (1985).
25. **Eliahou, H.E. et al.** Body weight reduction necessary to attain normotension in the overweight hypertensive patient. *Inter. j. obes.*, **5**(suppl. 1): 157-163 (1981).
26. **Oberman, A. et al.** Pharmacologic and nutritional treatment of mild hypertension: changes in cardiovascular risk status. *Ann. intern. med.*, **112**: 89-95 (1990).
27. **MacMahon, S.** Alcohol consumption and hypertension. *Hypertension*, **9**: 111-121 (1987).
28. **Puddey, I.B. et al.** Evidence for a direct effect of alcohol consumption on blood pressure in normotensive men: a randomized controlled trial. *Hypertension*, **7**: 707-713 (1985).
29. **Puddey, I.B. et al.** Regular alcohol use raises blood pressure in treated hypertensive subjects. *Lancet*, **1**: 647-651 (1987).
30. **Paffenbarger, R.S. et al.** Physical activity and incidence of hypertension in college alumni. *Am. j. epidemiol.*, **117**: 245-257 (1983).
31. **Luft, F.C.** Hypertension and exercise. In: Grana, W.A. et al., ed. *Advances in sports medicine and fitness*, vol. 2. Chicago, Year Book Med. Publ., 1989, pp. 119-135.
32. **Helmrich, S.P. et al.** Physical activity and reduced occurrence of non-insulin-dependent diabetes mellitus. *New Engl. j. med.*, **325**: 147-152 (1991).
33. **Ferrannini, E. et al.** Insulin resistance in essential hypertension. *New Engl. j. med.*, **317**: 350-357 (1987).
34. **Donahue, R.P. et al.** Hyperinsulinemia and elevated blood pressure: cause, confounder, or coincidence? *Am. j. epidemiol.*, **132**: 827-836 (1990).
35. **Nelson, L. et al.** Effect on changing levels of physical activity on blood pressure and hemodynamics in essential hypertension. *Lancet*, **2**: 473-476 (1986).
36. **Pagani, M. et al.** Changes in autonomic regulation induced by physical training in mild hypertension. *Hypertension*, **12**: 600-610 (1988).
37. **Hagberg, J.M. et al.** Effect of exercise training on the blood pressure and hemodynamics of adolescent hypertensives. *Am. j. cardiol.*, **52**: 763-768 (1983).
38. **Ades, P.A. et al.** Hypertension, exercise, and beta-adrenergic blockade. *Ann. intern. med.*, **109**: 629-634 (1988).
39. **Cappuccio, F.P. & MacGregor, G.A.** Does potassium supplementation lower blood pressure? A meta-analysis of published trials. *J. hypertens.*, **9**: 465-473 (1991).
40. **Grimm, R.H. et al.** The influence of oral potassium chloride on blood pressure in hypertensive men on a low-sodium diet. *New Engl. j. med.*, **322**: 569-574 (1990).
41. **Kaplan, N.M. & Ram, C.V.S.** Potassium supplements for hypertension. *New Engl. j. med.*, **322**: 623-624 (1990).
42. **Overlack, A. et al.** The influence of oral potassium citrate/bicarbonate on blood pressure in essential hypertension during unrestricted salt intake. *Klin. Wochenschr.*, **69**(suppl. XXV): 79-83 (1991).
43. **Siani, A. et al.** Increasing dietary potassium intake reduces the need for antihypertensive medication [abstract]. *Am. j. hypertens.*, **3**: 110A (1990).
44. **Krishna, G.G. & Kapoor, S.C.** Potassium depletion exacerbates essential hypertension. *Ann. intern. med.*, **115**: 77-83 (1991).
45. **Luft, F.C. & McCarron, D.A.** Heterogeneity of hypertension: the diverse role of electrolyte intake. *Annual rev. med.*, **42**: 347-355 (1991).
46. **Langford, H.G. et al.** Dietary therapy slows the return of hypertension after stopping prolonged medication. *J. Am. Med. Assoc.*, **253**: 657-664 (1985).
47. **Langford, H.G. et al. for the TAIM Research Group.** Effect of drug and diet treatment of mild hypertension on diastolic blood pressure. *Hypertension*, **17**: 210-217 (1991).

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### Rapid evaluation methods (REM) of health services performance: methodological observations\*

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*The rapid evaluation method (REM) was developed by WHO in order to assess the performance and quality of health care services, identify operational problems, and assist in taking managerial action. It was tested in five developing countries (Botswana, Madagascar, Papua New Guinea, Uganda and Zambia) between 1988 and 1991. REM consists of a set of observation- and survey-based diagnostic activities, carried out mainly in health care facilities. The article describes the various steps of REM, methodological issues such as setting objectives and using an issue-information matrix, preparation of survey instruments, use of computer software (Epi Info), data quality control, fieldwork, and the use of data to produce useful information for decision-makers. REM aims at bringing prompt and relevant information to planners and decision-makers who need it for a specific purpose. In the present examples, REM provided information for preparing a programme proposal for external funding, for establishing baseline data for a situation analysis, and for assessing staff performance after extensive training in order to improve the curriculum.*

#### Introduction

The rapid evaluation method (REM) consists of a set of observation- and survey-based diagnostic activities, carried out mainly in health care facilities, which provide a basis for identifying operational problems and taking managerial action.

The method was initially developed by WHO's Family Health Division and tested in five developing countries (Botswana, Madagascar, Papua New Guinea, Uganda, Zambia) between 1988 and 1991. The Division of Epidemiological Surveillance and Trend Assessment in WHO has now extended the method

to other health problems, besides mother and child health care or family planning. This article describes the basic components of the method and discusses some of the methodological issues encountered when assessing the performance and quality of health care services, in particular those elements which experience has shown require improvement.

#### Background

Sound management of health services requires relevant and timely information on the health status of the population and on the performance of health care institutions and staff. Most health services require health personnel to record too many routine data on too many forms, and to forward these to higher levels of the system. The data are often not analysed or used to improve the health system or the overall health status of the population. Because filling in forms is seen as an unproductive burden by busy health care workers, the forms are often filled out carelessly, are subsequently criticized for being unreliable, and are not used for management purposes. One often proposed alternative when information is needed for management purposes is to "conduct a survey". Surveys, although indispensable in some cases, require much careful preparatory work, are generally (and often rightly) perceived as expensive,

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usually provide too many data, and take a long time to process; they are thus rarely conducive to early and practical corrective action.

There is consequently an increasing need for methods that will accurately, quickly and economically assemble the necessary information for analysis and decision-making. The available literature on such methods for rapid assessment of performance in health care is relatively scarce. A series of facility-based assessments of child health activities, where the results were available to decision-makers within two weeks after the completion of the study, were described by Bryce et al. (2), while Vlassoff & Tanner (12) have stressed the role of rapid assessment methods in allowing research results to be translated into disease control activities. Smith (11) described five broad types of rapid epidemiological assessment (REA) methods, screening and individual risk assessment, community indicators of risk or health status, and case-control methods for evaluation. Such assessments of childhood disabilities have been undertaken in Bangladesh, Jamaica and Pakistan to develop cost-effective procedures for providing information for policy assessment and programme monitoring (8). Rapid statistical and epidemiological methods have recently been reviewed by Anker at a WHO-sponsored consultation (1).

Programme review techniques based on cluster sampling have been developed from earlier experience with the expanded programme on immunization and primary health care reviews. These methods have helped in the development of rapid assessment procedures for primary health care and maternal and child health activities. Rapid assessment procedures have several characteristics in common, such as emphasizing the use of field observation in acquiring information from different levels of health care, interviewing individuals (from ordinary members of the community to senior government officials), ensuring participation of professionals in multidisciplinary teams, using flexible methods for the identification and solution of problems, and providing the results to decision-makers in a timely fashion. Assessment is mainly problem-oriented, using interviews with key informants, group interviews, community meetings, and analysis of routine administrative and survey data: it provides findings that can be useful for mid-course adjustments of projects (9). The rapid evaluation method described here applies the techniques of rapid assessment to a functional analysis of the health care system.

## Methods

The REM approach, as applied in a number of countries in recent years, has always entailed the partici-

### Characteristics of REM

- REM is planned and executed with the active participation of health programme and service managers, staff trainers and supervisors, and the staff themselves.
- Information produced by REM examines the quantity, quality and client satisfaction of health services and, to a lesser extent, health status.
- The results of the REM are very rapidly available to the decision-makers—within days or weeks after the end of the REM field survey.
- The REM exercise is tailored for and necessarily followed by managerial decisions and actions ranging from improvements in training and supervision to new service strengthening projects, and overall health development plans.

pation of national programme managers in both control and implementation and in application of the design. The main role of external facilitators is to share methods, formats and analytical techniques in complementing the work done by national participants. REM is designed on the premise that health service managers are already familiar with basic service statistics. For example, a manager may already know the overall antenatal attendance level, but may wish to know where and why gaps in coverage occur or what variations exist in the quality of care provided.

The first step in REM is for the national authorities to outline the main objectives, to identify those programmes and services that are likely to be involved, and to decide on the topics and issues that will be addressed and those that will not. At the same time, a "core group" is appointed by the national authorities to take responsibility for the REM. This includes listing the main issues for REM to address, specifying the types of information to be collected, identifying possible sources for this information, indicating the schedule according to which the results will be made available, and making the necessary logistical arrangements, including staff and budgetary matters.

### The issue-information matrix

Acquiring information in REM is based on a framework with three dimensions. The *first dimension* deals with issues reflecting specific health problems rather than overall health care concerns. For example, an issue concerning maternal and child health can be further defined as a general obstetric problem, and subdivided into problems of obstructed labour, hypertensive disorders, anaemia, etc. The

Table 1: Issue-information matrix\*

Issues	Information sources						
	Community			Health workers			
	Leaders	Mothers	TBAs	Physicians	Midwives	Nurses	Facilities
Antenatal risk factors	FGD	EXI	FGD	IND	IND	IND	OBS
	IND	FGD IND	IND	OBS	OBS	OBS	REC CHK
Obstructed labour	FGD	EXI	FGD	IND	IND	IND	OBS
	IND	FGD IND	IND				REC CHK
Emergency transport for obstetrics	FGD	FGD	FGD	IND	IND	IND	OBS
	IND	IND	IND				CHK
Neonatal tetanus	FGD	EXI	FGD	IND	IND	IND	OBS
	IND	FGD IND	IND				REC CHK
Growth monitoring	FGD	EXI	FGD	IND	IND	IND	OBS
	IND	FGD IND	IND	OBS	OBS	OBS	REC CHK
AIDS	FGD	FGD	FGD	IND	IND	IND	OBS
	IND	IND	IND				CHK
Family planning	FGD	EXI	FGD	IND	IND	IND	OBS
	IND	FGD IND	IND				REC CHK

\* TBAs, traditional birth attendants; EXI, exit interview; IND, individual interview; REC, record review; FGD, focus group discussion; OBS, observation of activity; CHK, checking facilities and supplies.

level of detail at which issues are defined depends on the objectives of each REM and on a consensus reached by the core group on the concerns of individual programmes.

Information sources (the *second dimension*) are identified from community, health staff and health care facilities. The former are usually specified further through the identification of the individuals in the community and the categories of health workers who should be interviewed. Inspection of health facilities provides information on policy and on the technical and managerial aspects of the programme, while observation of equipment and supplies is used to determine whether these necessary components of health care are available and functional.

The *third dimension* of the matrix describes the methods used to obtain the information. An example of a (hypothetical) issue-information matrix is presented in Table 1.

An appropriate and practical approach to data collection is thus determined for each information item. Because the REM provides a picture of the functioning of services at different levels and from different points of view, several data collection instruments are used. The instruments used in the five

countries under consideration included: clinic exit interviews; health staff interviews; observation of task performance; community and staff focus group discussions; review of clinic records; checking of facilities, equipment and supplies; and household interviews (rarely).

A brief description and discussion of each type of data collection instrument follows.

(1) *Clinic exit interviews.* In order to assess the functioning of the health care facility from the point of view of the client, a random selection of patients was interviewed immediately after the consultation or contact with the health services. The interview provided an opportunity to find out how the clients perceived what happened during the visit to the clinic. Information included items on their satisfaction or dissatisfaction with the services rendered, and other problems encountered in seeking health care.

Through the use of questions about the patients' knowledge of health-related issues, the exit interviews gave an opportunity to determine if clinics were providing appropriate health education messages. In one country, for instance, women leaving the antenatal clinic were asked to list some warning

signs that are associated with pregnancy (e.g., vaginal bleeding, extreme tiredness, headaches), thereby providing feedback on how well the educational messages on these signs were understood by patients. Ascertaining whether specific procedures were carried out during the clinic session (blood pressure measurements, abdominal palpation, tetanus toxoid injection) gave an indication of the quality of antenatal care.

(2) *Health staff interviews.* Staff interviews provided an opportunity to obtain information from health workers about their attitudes, issues pertaining to management and supervision, job satisfaction, education and training, as well as to identify perceived problems and list suggestions for improvements. Different questionnaires were applied for various categories of health staff; in Zambia and Uganda, the staff interview was self-administered and anonymous in order to encourage free expression.

(3) *Observation of task performance.* Observation of the clinic staff's performance during their contact with patients was one of the most effective ways of learning what actually happens during the encounter. Although the procedure is time-consuming and can by itself influence the findings, it was employed in several countries. This method supplemented information on the quality of care obtained from other instruments.

(4) *Community and staff focus group discussions.* These are in-depth discussions among a small group of individuals chosen from a specific target group. A trained facilitator stimulates discussion on the basis of a prepared but flexible outline. The purpose of the discussion is to provide in-depth information not readily available from short structured interviews. Focus group discussions are especially useful for eliciting information on feelings, attitudes and behaviour, or information about sensitive issues which cannot easily be obtained in a household interview. They are often used to provide information about community perceptions on issues related to health problems, health care, and service performance and acceptability. Focus group discussions can also be conducted with health staff, including traditional birth attendants and public health nurses. These discussions provide better understanding of the work done by the staff, and the problems they perceive in carrying out their tasks. A critical review of the advantages and requirements of focus group discussions can be found in Khan et al. (7).

(5) *Review of clinic records.* Useful information can be collected quickly from the examination of a sample of clinic records. This review served two general purposes: to determine whether procedures were recorded properly and to evaluate case manage-

ment of certain 'tracer' conditions. For instance, in reviewing antenatal care, a checklist of those items (age, blood pressure, obstetric history) that should be recorded on a clinic record card was developed. This review indicated the extent to which those standard tasks were properly recorded. Specific items that were often missing were identified for further investigation.

Case management of specific conditions was also evaluated. If an obstetric record indicated a specific high-risk condition, the case management was evaluated according to whether the action taken conformed to agreed standards set by the health administration where such were available. For example, tests for syphilis were routinely carried out during antenatal clinic visits in all five countries. Records with positive results were examined, and the proportion of such records showing appropriate treatment or referral was used as an indicator of the quality of care. Different types of record reviews were required for primary and higher levels of health care facilities: while referral of a high-risk pregnancy to hospital may be proper case management for a primary facility, a secondary or tertiary facility would have a different management strategy and would have to be assessed accordingly.

(6) *Checking of facilities, equipment and supplies.* This was done to ensure that critical supplies and equipment were available and functioning properly and were adequate for the patients' health needs. The checklists included:

- physical structure of the facility (e.g., waiting rooms, examination rooms, storage facilities);
- equipment (e.g., refrigerator, examination couch or table, blood pressure apparatus); and
- supplies (e.g., drugs, gloves, syringes, needles), and other items important for the quality of the type of care chosen for review. Both the availability of the items in the checklist and their condition (satisfactory or unsatisfactory) were noted and recorded.

(7) *Household interviews.* Household interviews were carried out in the catchment areas of the health facilities selected for the REM in two countries (Botswana and Zambia). They provided a means of sounding the knowledge and practices of people who do not use the service. These interviews included questions on social and demographic status, the use of health facilities, specific problems encountered, and their knowledge of and attitudes to family planning and AIDS. The use of household interviews in REM was optional because they are usually very time-consuming and their validity is debatable, and because REM is essentially a health-facility-centred procedure.

### Sampling

REM is carried out within a geographical area which usually encompasses both rural and urban conditions. Since REM is designed to meet the needs of different programme managers in a variety of settings, the details of sample design varied from study to study. The minimum sample size required was determined by the level of precision needed for decisions that would improve health care.

In most instances, the purpose of REM is to provide answers for administrative officials at the central or provincial level. This is accomplished through the use of cluster samples, allowing for aggregation of data from several sampling units. Nevertheless, it may be advisable to take large enough samples at each level of care to allow analyses to be undertaken for an individual clinic or health centre. Furthermore, it is usually more efficient to take a small number of larger samples than several small samples.

Sampling follows a hierarchical pattern that reflects the administrative structure of the health services: both primary and higher level facilities need to be included in the sample in order to provide an overall picture of the functioning of the health service system. Thus, depending on the administrative structure, provinces (or equivalent administrative units) are selected at the first stage, and districts (or equivalents) within selected provinces at the second stage. Within districts, health facilities of each type are selected at random with a probability proportional to the size of the population covered.

For focus group interviews and for household surveys, communities within the catchment area of selected facilities are chosen at random. It is possible to stratify on important variables: in one country where a household survey investigated access to health facilities, communities were stratified according to their distance from the facility. Generally, sample sizes are kept relatively small, sacrificing some precision of measurement for savings in cost and staff time.

The number and availability of survey teams weighs considerably on the number of facilities and villages visited. The survey work for the five REMs carried out was done in 6 to 10 days, employing up to ten teams. Each team consisted of 4 to 5 members. Generally, each team was able to visit 1 provincial health office, 1 provincial hospital, 1 district hospital, 2 to 4 health centres (or 1 health centre + other smaller units), and 4 to 8 villages.

### Discussion

Several methodological issues were raised during the preparation and execution of the five REM country studies.

(1) *Identification of issues and preparation of instruments.* The participation of national health staff as diverse as ministry officials, physicians, midwives, training tutors, and nurses in charge of a health centre was an important aspect in conducting a national REM. This participation strengthened the identification of national authorities and staff with the REM; it also ensured that the instruments developed addressed pertinent health issues and that the health care system was audited from different vantage points. Issue identification can be a drawn-out process, often taking several days to complete, before consensus is reached on the questions to ask. In future REM surveys, full attention should be given to this important initial phase, even at the price of prolonging it. It is highly advisable that the survey instruments derived from the "Issue-information matrix" should be prepared, pre-tested, revised and agreed to by the core group during this time. Any later changes should be avoided unless essential, and should be considered with a high degree of care.

(2) *Data quality control.* Rapid surveys are sometimes thought to be less reliable than large-scale research of longer duration; it is therefore essential that adequate care be taken to ensure the validity of the results. Data collection errors should be detected and corrected in the field as early as possible. This should be done by a supervisor who reads all the completed questionnaires and checks for consistency and completeness. Computers can also be used to control the quality of data. The data entered into a laptop computer can be quickly checked for errors, and, if needed, the necessary data collection can be repeated. Kalter (6) has discussed the validation of data collection instruments through the use of probability statistics. Ross & Vaughan (10) suggested that internal consistency be checked within 24 hours of completion of the initial interview, and all necessary corrections should be made by another interviewer.

In the case of REM, efforts were made to check the staff interview sheets, record checks, and facility observation sheets immediately after their completion, but this was not always possible. Certain items presented particular problems, such as the difference between the "Not applicable" and "Not available" category or the way to record if the treatment applied was appropriate. More attention should be paid in future REMs to staff training and careful pretesting of instruments. Last-minute changes to the survey instruments, as mentioned earlier, are not advisable since they may worsen inter-observer consistency.

Additional assessment of data quality can be made through a comparison of results from different sources. For instance, results from record reviews, exit interviews, and task observations can be compared to assess the consistency of results. In

Zambia, where this comparison was made, the concordance between information obtained from exit interviews and antenatal records was high.

(3) *Fieldwork.* So that the survey part of REM may proceed smoothly in the field, several aspects should be adequately planned for. Provincial and district health administrators should be notified early in advance that the REM will take place in the facilities under their jurisdiction. Community and village leaders should also be alerted that their community is to participate in the exercise.

It is useful to obtain a work schedule of the facilities included in the survey well in advance of the fieldwork. This will ensure efficiency in data collection and avoid visiting clinics on days when staff are not available or when the clinic session is not being held. Even with careful planning, however, logistical problems are apt to arise and should be allowed for.

A problem which occurred in some clinics was that there were too few patients to satisfy the sample size. One solution was to revisit the same clinic on a different day; when this was not possible because of logistical or time constraints, another nearby clinic of similar size was used.

(4) *Computer support.* Laptop or notebook computers are increasingly used in collecting and analysing data from health surveys (4, 5). Epi Info (3) was the software used in most studies described here, and proved to be an effective tool for an initial analysis of results and for the preparation of questionnaires. The latter, however, is still a relatively lengthy and laborious process, even with Epi Info, for all but fairly experienced users.

(5) *Use of data to produce information.* The quantitative information produced by REM was designed to be tabulated and analysed quickly. This was done in order to present the preliminary results to programme managers immediately after the fieldwork, as action-oriented information.

The qualitative information produced through the use of focus group discussions, on the other hand, requires more time for analysis, and is employed at a later date. Experience of focus group discussion has underlined that the training of discussion leaders is essential both for leading the sessions and in interpreting the results. In one country, the high quality of training in those areas contributed to the understanding of community perception of the health services. In another country, lack of suitable preparation of discussion leaders resulted in a vague expression of concern that was difficult to interpret.

(6) *Timeliness of results.* Rapidity is the key-word which distinguishes this method of assessment from other forms of data collection for management of health services. The REM experiences have generally produced results expressed in tables of

critical indicators within seven to ten days; production of a draft report usually took several weeks. Preparation of "dummy tables" early in the process assists in organizing the data into logical matrices and in writing the report.

### Conclusion

REM aims at bringing prompt and relevant information to planners and decision-makers who need it for a specific purpose. In the present examples the REM has provided information for preparing a programme proposal for external funding, establishing baseline data for a situation analysis, or assessing staff performance after extensive training in order to make adjustments in the curricula.

In one country the results of REM were presented at a meeting of provincial health authorities and served as a basis for policy recommendations. The application of REM to areas other than maternal and child health has potential benefits. The output of REM could be used in the development of a national health information system, and we should welcome the indications that such an outcome has effectively occurred.

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### Résumé

#### Méthodes d'évaluation rapide des performances des services de santé: observations méthodologiques

La méthode d'évaluation rapide (Rapid evaluation method - REM), élaborée initialement par l'Organisation mondiale de la Santé, est destinée à fournir une description rapide des aspects tant quantitatifs que qualitatifs des services de santé, à identifier les problèmes opérationnels et à permettre la prise de décisions en matière de gestion sanitaire.

La méthode, qui a été appliquée entre 1988 et 1991 dans cinq pays en développement (au Botswana, à Madagascar, en Ouganda, en Papouasie Nouvelle-Guinée, en Zambie), est basée sur une série d'activités diagnostiques d'enquête et d'observation, menées principalement au sein des services institutionnels. Elle requiert de façon essentielle et primordiale une participation précoce et continue des autorités locales à plusieurs niveaux, tant dans la préparation que dans la mise en œuvre des investigations, et débouche sur la préparation de propositions d'action au niveau central. Les principales étapes en sont: l'identification, selon une matrice tri-axiale, des problèmes à étudier, des sources d'information et des méthodes et outils à appliquer pour obtenir les informations; la récolte des données dans un échantillon de services de santé et de communautés; l'analyse des données et leur synthèse en un rapport à but de gestion. L'article discute ces différentes étapes et analyse les caractéristiques et l'application des principaux outils utilisés: interviews à la sortie des consultations, interviews de personnel de santé, observation d'activités, discussions de groupe organisées (avec des membres de la communauté et avec le personnel de santé), examen sélectif de dossiers de soins, vérification des locaux, de l'équipement, des ressources, et, parfois, interviews à domicile. La discussion du type de résultats obtenus et des difficultés rencontrées couvre l'identification des problèmes à étudier, l'échantillonnage, la préparation des instruments d'enquête, l'utilisation de logiciels du type Epi Info, et l'application des résultats à la production d'information utile aux preneurs de décision et aux responsables des politiques de santé. Le domaine d'application de la méthode s'est jusqu'à présent limité au domaine de la santé maternelle et infantile mais peut être étendu à d'autres domaines, par exemple celui du contrôle des maladies infectieuses. Dans les exemples décrits, la méthode d'évaluation rapide a fourni dans un délai relativement court l'information nécessaire à l'établissement d'une proposition de

subvention de programme, à l'élaboration des données de base pour une évaluation de situation ou pour évaluer la performance du personnel après formation, afin de procéder aux ajustements nécessaires du curriculum.

### References

1. Anker, M. Epidemiological and statistical methods for rapid health assessment: introduction. *World health statistics quarterly*, 44: 94-97 (1991).
2. Bryce, J. et al. Assessing the quality of facility-based child survival services. *Health policy and planning*, 7: 155-163 (1992).
3. Dean, A.D. et al. *Epi Info, Version 5: a word processing, database, and statistics programme for epidemiology on microcomputers*. Stone Mountain, GA, USD Incorporated, 1990.
4. Forster, D. et al. Evaluation of a computerized field data collection system for health surveys. *Bulletin of the World Health Organization*, 69: 107-111 (1991).
5. Frerichs, R.R. Epidemiologic surveillance in developing countries. *Annual review of public health*, 12: 257-280 (1991).
6. Kaller, H. The validation of interview for estimating morbidity. *Health policy and planning*, 7: 30-39 (1992).
7. Khan, E.M. et al. The use of focus groups in social and behavioural research: some methodological issues. *World health statistics quarterly*, 44: 145-149 (1991).
8. Kroeger, A. Health interview surveys in developing countries: a review of the methods and results. *International journal of epidemiology*, 12: 465-481 (1983).
9. Pearson, R. Rapid assessment procedures are changing the way UNICEF evaluates its projects. *Hygie*, 8(4): 23-25 (1989).
10. Ross, D.A. & Vaughan, J.P. Health interview surveys in developing countries: a methodological review. *Studies in family planning*, 17: 78-94 (1986).
11. Smith, G. Development of rapid epidemiologic assessment methods to evaluate health status and delivery of health services. *International journal of epidemiology*, 18 (Suppl. 2): S2-S15 (1989).
12. Vlassoff, C. & Tanner, M. The relevance of rapid assessment to health research and interventions. *Health policy and planning*, 7: 1-9 (1992).