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PROPOSED GUIDELINES FOR DESIGNING EVALUATION
FOR NUTRITION AND HEALTH PROGRAMMES

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A. INTRODUCTION AND SOME GENERAL PRINCIPLES

1. Purpose of this paper

Running a programme requires a management structure to ensure delivery and supplies, and to provide training, back-up, and supervision for the field workers. A successful programme requires that the right supplies be provided to the right people in a timely manner; and that field staff are adequately trained, supervised and supported. Programme Management therefore involves making decisions about allocation of resources, physical and human. These decisions require certain information, which differs at different levels of the administrative structure. This paper aims to give suggestions on methods for setting up procedures to provide the minimum information required to make these decisions.

This paper therefore aims to give guidance to those responsible for designing a built-in evaluation mechanism for country programmes under the JNSP. It is a first attempt to provide such guidance, and is intended mainly for the initial needs of those considering evaluation. The scenario envisaged is that either a government planning officer, or a consultant, or some other such person, needs to produce recommendations during the planning of a country programme, during a relatively short period of time. The first experiences should be made available as case studies, so that as soon as possible there will be some concrete experience to go on.

Several assumptions are made here:

- that there is a detailed plan of the programme either available or being made; and that some guidance will become available on the choice of programme components;

- that the evaluation planning is part of the programme planning;

- that it is generally agreed that it is important to make a start, and iteratively to move towards more efficient and realistic designs based on experience as it comes in - hence the initial designs reached through this process are open to modification and evolution;

- but nonetheless it is essential to arrive at some initial design for the evaluation procedure with a fair amount of detail, enough to see if the design is likely to be workable - this is the "design document" referred to hereafter

Two immediate outcomes of using this paper are therefore intended. First, the beginnings of a process of developing the evaluation procedure - involving project planners, management, and the supporting institutions as appropriate with special expertise. Second, the design document itself (see section D).

It should be taken as read that wherever there are existing mechanisms for gathering data, interpreting it, and indeed for evaluation (e.g. as part of wider information systems, as established administrative procedures, etc.) these will be used and adapted.

2. Terminology and basic concepts

There are different types of decisions to be made at different points in the management of a programme. A village health worker may need to decide what to do when examining a child; which household to visit with what services, etc. A Village Health Committee may need to check that the correct diagnoses are being made, and where in general health and nutrition are improving. The district level needs to know that resources are reaching the right villages, that development of local capability is proceeding, and that nutrition and health are improving - taking the necessary action otherwise. Here, it is also important to know, in certain cases, whether changes in health and nutrition are due to the programme, or part of it, to make more far-reaching decisions on the programme activities at national level, both management's decisions and also decisions based on some knowledge of the effectiveness of programme activities are important.

The procedures discussed here aim to fulfil these needs for decisions at different levels of management. Unavoidably, there are different aspects to the procedure. The most important concepts to clarify at the start are:

- (a) the different types of information, on programme implementation, and on health and nutrition;
- (b) the distinction between assessing overall change, and change due to the programme: the former may suffice for management, but the latter is needed for policy decisions.

There is a wealth of different terms in use for planning and for evaluation, and it is impossible to choose one convention that will be familiar to everyone. Worse, there is such a confusion in the use of the different terms that a "constraint that is often encountered is a certain built-in resistance in principle to accepting evaluation and its results as a valid management tool" (WHO 1 para 9).

The "evaluation" procedures discussed here are primarily (but not only) an integral part of programme management. Its purpose is the same as that for health programme (1, para 6): "Evaluation is a systematic way of learning from experience and using the lessons learned to improve current activities and promote better planning ... for future action". The relation to other terms in current use is given briefly below.

Evaluation (here) = Evaluation (WHO, 1) = Monitoring & Evaluation (World Bank: 2) = Operational Programme Evaluation (other literature).

We distinguish here between "routine evaluation", aimed at ensuring satisfactory programme management, and "impact evaluation" aimed at assessing the net effect of a programme. Before explaining this, other concepts need to be clarified.

- (a) There is a difference between checking on an activity ("monitoring" it) e.g. number of home visits; and examining its effect outcome, e.g. nutritional status. The information relating to activities is known here as "process". The information relating to effects or outcome is known as "outcome". In other terminologies the equivalents are as follows:

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Process = Review of Progress, Efficiency, Effectiveness (WHO: 1, paras 38, 56-70) = Inputs and Outputs, or Monitoring (World Bank: 2).

Outcome = Output (WHO: 1, para. 67) = Effect and Impact; Assessment of Results (World Bank: 2).

(b) There is another essential difference between examining changes in outcome (e.g. improvement in nutritional status) for programme participants, and in considering whether this is due to the programme. One difference is obviously the changes that anyway would have occurred with or without the programme; one difficulty in assessing this may be due to the way in which programme participants are selected, and so on. The overall change, not allowing for changes that might anyway have occurred, is known as "gross outcome". If attempts are made to determine how much change is due to the programme, this is referred to as "net outcome". The expression net outcome is synonymous with "impact". The relationship may be illustrated as follows:

Net Outcome = Gross Outcome + Changes not due to Programme etc.
(or impact)

This concept is discussed further in (3,4). It is suggested that a portion of the effort put into evaluation be devoted to impact evaluation, since this is the only way that some estimates of the actual effectiveness, and possibly cost/effectiveness, of the programme can be assessed

"Routine evaluation" refers to using information on process and gross outcome to reach conclusions and decisions useful to programme management. Routine evaluation is similar in concept to a management information system. This procedure checks if programme implementation is adequate, by comparison with operational objectives, and if gross changes in health and nutrition are adequate in comparison with impact objectives. This is equivalent to "routine adequacy evaluation" in (5): since community participation is central to the programme, it is taken that flexible (decentralized) management is norm, and there should be no distinction between the types given in (5) between routine adequacy evaluation and routine adequacy evaluation/flexible management. This concept of routine evaluation is ... This is equivalent to much of the evaluation process referred to in (1, paras 36-70), and to nutritional surveillance for programme management (3). "Impact evaluation" uses information on process and net outcome: it is equivalent to "assessment of impact" in (1, para. 71).

The JNSP distinguishes "impact objectives" (e.g. reduce infant mortality) and "operational objectives" (e.g. build national capability). These objectives relate directly to outcome indicators, to assess impact; and to process indicators, to assess progress towards meeting operational objectives. Quantification of these objectives in the planning stage gives the criteria against which progress can be assessed, by evaluation. This specification should be directly related, again initially in the planning stage, to the management or policy decisions that are to be made if these objectives are or are not met (in management, usually the latter). In section D, examples of output tables are given, which include criteria for deciding if the programme is on track in terms of process of implementation and outcome. These criteria are the same as the operational and impact objectives (as conceived of in the JNSP documents). This is illustrated in table 1. The

evaluation procedure is thus a way of making these objectives meaningful, and is yet another reason that planning a programme should include planning the in-built evaluation. The level of detail reached in planning the programme, whether prior to implementation or, often better, as the programme is implemented ("learning-by-doing"), determines the level of detail feasible in designing the evaluation. Ideally, these should all be part of the same process.

Impact objectives need to be distinguished into "net outcome objectives" and "gross outcome objectives". Operationally, the outcome objectives needed for routine evaluation (e.g. reduce pre-school malnutrition by so many cases per 100 per year) are "gross outcome"; but the impact objectives are "net outcome". It may be decided in the programme planning that gross and net outcome objectives should be set as the same reduction in malnutrition, but the distinction is crucial for subsequent evaluation. This point becomes clearer when translating impact objectives into outcome indicators as shown in table 1.

Table 1. Relationships between objectives and evaluation indicators

<u>Operational Objectives</u>	<u>Process Indicators to Assess Progress to Objective</u>
e.g. (a) Build local organizations	e.g. (a) Establishment of VHC's
(b) Provide health care to all families in area X	(b) Number of household/villages covered

<u>Impact Objectives</u>	<u>Outcome Indicators to Assess Progress</u>
e.g. (a) Improve child growth so that proportion of children less than 80% wt/age is reduced by 3 cases per 100 per year.	e.g. (a) Prevalence of children less than 80% wt/age
(b) Reduce infant mortality from 200 per 1000 live births to 150 per 1000 live births after five years.	(b) No. of infants dying in relation to number of births, per year.

3. Objectives of JNSP and built-in evaluation

The objectives of the JNSP have been reviewed in several documents, and are summarized in (5, p. 2). Similarly, the objectives of individual programmes, and of the monitoring and evaluation are given in this reference, page 4. This will not be repeated in this paper at this stage, but can be inserted later. It should be noted that additional emphasis should be given to promoting organization at local level; thus, objective 1-A on page 4 of (5) should read "effectively deliver certain appropriate goods and services to certain people, particularly through building capability at local level".

Two additional points may be made. The first is that it is important to retain the overall impact objectives of improving child nutrition, reducing infant and child mortality, etc. Although this may be a long-run objective, nonetheless it is the purpose of the operational objectives, including building local capability. As this capability is built up, it should have a fairly rapid effect, at least on nutritional status. There is a risk that if the human impact objectives are downplayed in favour of organizational objectives, that organizations may be successfully set up with no clear idea as to what precisely they are supposed to do. A second point related to this is therefore that it is crucial to include some element of assessing impact. The present state of knowledge on what is effective in improving nutrition and reducing infant and child mortality is often inadequate. It is most important that this situation be improved, and that the JNSP includes the objective of gaining better knowledge of what interventions should in the future be concentrated on. Otherwise, the opportunity may pass, and the situation will continue where it is difficult to confidently recommend most of the interventions currently being considered, for lack of information on their effectiveness. Moreover, now is a particularly good opportunity to do this since the JNSP programmes are intended to be operational programmes, not pilot, and to be replicable. One of the major constraints has been that ref 6 gives much of what is almost all the information on impact (and that is not a great deal presently available) has come from pilot projects. And it seems that one of the major reasons that impacts may not be achieved when these are scaled up is precisely because the scaling up involves changes in management, leadership, etc.

4. Routine and impact evaluations

It is therefore considered vital to mix routine and impact evaluations. Routine evaluations are essential for running the programme. Impact evaluations are needed to find out how the programmes work. The case is discussed further in (5). At present it is taken that this case is accepted.

A final point concerns baseline surveys. These may be desirable for impact evaluation. They are not needed for routine evaluation. They are by no means always necessary for impact assessment. Often it is better to use the first data available as the programme starts. As a general rule, if a baseline survey is essential for programme planning, which is less often than commonly supposed, its design should enable it to be used for impact evaluation. But usually a baseline survey before the project is planned is not necessary.

5. Other documents

This paper has been rapidly drafted to be available for the JNSP Steering Committee meeting in mid-April. By no means all the points for consideration are covered here. Moreover, it has been inevitable that much reference has been to our own work. This is not intended to over-emphasize this other work, but is merely for rapidity of drafting. The papers of ours which may be useful in considering this subject are (3, 5, 7), and more extensive references into the relevant literature will be found in these.

B. GENERAL MODEL OF EVALUATION PROCEDURE

The general model envisaged for the built-in routine evaluation procedure is described here as a point of reference. (This partly based on procedures discussed at a UNICEF/Cornell Workshop on Nutritional Surveillance in Eastern and Southern Africa, in May 1982 (8), and on concepts on hierarchical/non-hierarchical information systems given in a background paper for this meeting (9)).

A representation for the procedure (or system) for routine evaluation is given in figure 1. The key concept is to identify the points in the administrative structure at which management decisions are made (stars in the figure); what these decisions are; and what minimum information is needed to base these decisions on. High priority is given in the JNSP to community participation in running the programme activities. This means that information is needed in villages, for use in villages. Much of this information can be informal. This also provides the data source which, with suitable summarization, could provide the needed data at district level. Again, summarized data from district level should be useful centrally. Further steps in the administrative hierarchy can be fitted in, e.g. provinces, that are not included here for reasons of simplicity.

If possible the system should be set up such that all (or most) of the information passed from one level of administration to another has already been used at the more disaggregated level. In fact at the individual level (see figure 2), the primary information is often anyway collected for decisions on diagnosis and treatment, either at home or clinic visits in this example. The system is illustrated using the operational objectives of home visits by VHWs targetted to households with underweight children and establishment of VHCs (Village Health Committees); and improvement in nutritional status as the impact objective. Village-level systems can operate autonomously when passing information on to the district level

The primary source of information in the illustration is household visits. Households are visited by voluntary health workers at regular intervals, and in this example children are weighed and examined for certain illnesses. The weights and symptoms where applicable are recorded and a decision is made by the VHW as to whether the child needs to be referred to the clinic or whether other action is needed. At the same time other services may be rendered, for example supply of oral rehydration salts, education, etc. The VHW may then periodically summarize the weight data to produce an assessment of village progress. A second source of data may be from the

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clinic itself, where again children may be weighed and their health assessed for the usual reasons for diagnosis and treatment. Again these data may be summarized and periodically used to assess progress in the village. If the organization at village level is going ahead, a Village Health Committee (VHC), or development committee, etc., may be established. The periodic reports based on home visits and/or clinic information should be useful to the VHC for its own planning. This is likely to involve the use of its own resources, and occasionally as support to requests for other inputs from the district level. The types of simple data tabulations likely to be suitable are given in section D, in relation to this example.

Assessments such as these at village level provide the raw data for evaluation at district level. The reports should be compiled over a suitable time period and forwarded to the district office. If they have already been required in the villages, the additional work involved should be minimal, and the main motivational problem in compiling data overcome. At the district office the information from the programme villages within the district can again be summarized, for use by the relevant district organizational body. Decisions at this level are likely to involve allocation of resources under the jurisdiction of the district, and again on occasions to support cases for requesting additional resources from the central administrative office. Provided there are decisions that are really made at the district level, again there should be adequate motivation for compiling the necessary data coming up from the villages. Examples of tabulations for use in district offices derived from this illustration are also given in section D.

Finally, a further summarization of data from the district level should provide the essential information at central level. Illustrations are given in section D.

Impact evaluation will not be discussed here in general terms. See (5), section 4.

C. STARTING A PROCESS FOR DESIGNING THE EVALUATION

Successful evaluation will need cooperation from a range of people and institutions. The same applies to designing a workable evaluation system. There is every advantage in bringing those who will be involved in running the system into its design. This again depends on the programme planning, and should be part of the planning process: if the planning includes community involvement (as is intended) then local consultations on the programme plan should include the evaluation element. If the programme is intended to evolve through decentralization of decision-making, the evaluation component will (a) be needed to guide this evolution, and (b) itself need to adapt as the programme develops. [This evolution of the programme can refer to: targetting of project activities; or to modification of these activities (e.g. changing education methods); or indeed to replacing activities found to be ineffective or unfeasible with others (e.g. changing from distributing supplementary food to promoting home food production)].

Those who should be involved in the process of designing the evaluation should include the programme planners, the programme management, and representatives of the communities and services involved; in addition, some special expertise in health and nutrition data, its analysis, and in evaluation procedures will be valuable. Among the early steps recommended is to hold meetings of such groups to begin planning.

In this context, a number of clarifications are often needed. The most important concerns who does the evaluation, for whom, and for what purposes. The routine evaluation component, which should be the major effort, is done by those carrying out the programme itself, for their own use, and for those supporting them higher up the administrative structure. The purpose is to help the programme operate, to identify problems in the planning and implementation of the programme, and to help timely correction of difficulties or problems found. Getting a clear understanding of this view of evaluation is essential, because otherwise cooperation will be less than enthusiastic. It should not be seen, as it so often is, as outsiders coming in and trying to find fault.

The impact evaluation component, if it is included, should in fact have a similar purpose in the long-run. That is, to work out what is effective and what is not, so that resources and efforts can be progressively shifted towards the effective interventions. It may be pointed out that the present status of knowledge is woefully inadequate to confidently choose the best interventions, both in general and certainly in the specific circumstances of an individual country or area. This discussion needs to be held at central level, to encourage support of the policy-makers and of the institutions with the necessary capabilities for helping the impact evaluation.

The first steps therefore aim to bring in the crucial people and institutions, and to gain their support; to clear up any misunderstandings; and to reassure where necessary that evaluation is not threatening, on the contrary is an integral and essential part of the programme. Some discussion of the general model of an evaluation system may be appropriate, see section B. This can give a lead-in to considering how such a model can be adapted feasibly to local circumstances.

The next step is to start to decide in concrete terms what to do. The objective of preparing the design document (section D) provides a framework. The group of people/institutions brought together to discuss the general plan could now be turned into a working group, or at least into an overseeing group (e.g. steering committee) to supervise the planning of the evaluation. (With luck, the overall planning of the programme may be proceeding on similar lines, in which case the evaluation planners can be a sub-group in the overall planning process).

The logic of the design document, for routine evaluation, is:

- (a) review the programme objectives, operational and impact, at different administrative levels.
- (b) identify who needs what information to make what decisions on programme management and implementation
- (c) specify the information output needed, drawing up dummy (blank) tables
- (d) specify possible data sources, reporting formats, etc.
- (e) return through this process, starting at (a), to work towards a feasible plan of the evaluation (e.g. there is no point in specifying a certain operational or impact objective if progress to meeting it can not be assessed; equally there is no point specifying an impact measure which is not known, or likely, to be responsive to the intervention).

The work will involve field visits, observing current work practices (including reporting), discussing information used with those currently making decisions on existing programmes, drafting possible reporting formats, and so on. Assignment of the work may be to members of the working group themselves, or additional manpower may be hired for the task. The work may take some time. In the context of a consultant's visit it may be decided that the best outcome of the visit will be to begin this process, presumably agreeing on some deadline for completion of the first draft of the design, for review. This means that a workplan for planning the evaluation may need to be set up and agreed on. Similarly, funds will need to be allocated.

This is about as far as it is realistic to go in trying to give theoretical guidance from an office in Geneva. The next section gives details of what may be needed in the format of the proposed design document.

D. THE DESIGN DOCUMENT

The outcome of the preliminary assessment of evaluation needs is a tentative design for the evaluation procedure. As emphasized in section C, this preliminary assessment should itself provide a momentum in getting the evaluation going - it should involve the people and institutions who will run the evaluation, and the design should be the product of their thinking. It is useful to aim at a specific product which lays out what needs to be done - and can perhaps be the beginnings of an operating manual for the evaluation procedure itself. This section gives some suggestions and illustrations for this product, referred to (for want of a better term) as the "design document". This document should not exist by itself, but should be part of the programme plan, as one section, annex, etc.

The necessity of linkage to planning is absolute here. The design document has to include the programme objectives, quantified (albeit often on the basis of guesswork). The process of coming up with an evaluation design may in fact contribute to clarifying the programme objectives. Yet again, the procedure is seen as iterative. Routine evaluation and impact evaluation are treated separately for convenience here although they will be linked in practice.

A possible outline for the design document is as follows.

Routine evaluation

- Statement of programme's operational and impact objectives; disaggregation of these to the smallest unit at which evaluation data will be used and decisions made (usually intended to be village level, if community participation is to be real); and/or health centre or clinic).
- Identification of decision points, and decisions to be made: for example, village health committees; district programme offices; central programme management.
- Information needs to support these decisions, and dummy tables.
- Information sources, reporting forms, tallying and summary forms, reporting schedule.

- Steps needed to set up evaluation procedure.

Impact evaluation:

- Comparison groups.
- Confounding factors
- Analytical capability

1. Routine evaluation

a) Programme Objectives. Objectives may be set by aggregating village objectives, or disaggregating central and district objectives, or a combination of these. The results should give details, for the total programme area (which could be national), district, and village, on activities, targetting, organization, and outcome. A district statement of objectives (following the usual illustration) might be on the following lines.

"Thirty of the hundred villages in the district are targetted. In these Village Health Committees (VHC's) will be set up, and one village health worker (VHW) per village will be trained. The VHW will visit all households (average 200 per village) every year, and households with malnourished children every month (60 per month). Monthly visits will include education, oral rehydration salt supply, and referral as needed. A reduction in malnutrition of 2 cases per 100 per year is aimed at, from 30% prevalence at the beginning of the first year, to 20% prevalence after 5 years". (Note: if the initial prevalence is unknown, the first evaluation results will do).

A village plan could be the village-level equivalent of the above. The overall programme plan would be the aggregation of the district plans.

The plans have obvious implications for supplies (e.g. oral rehydration salts), training, education materials, clinic support for referral, and so on. Not all these implications will be referred to below. We will use home visiting and nutritional outcome as the examples. In reality, additional or alternative programme activities will be included district by district or village by village. However, similar principles will apply.

b) Identification of decision points and decisions to be made. These will usually be defined by activity or groups of activities, possibly grouped by having the same target group.

At village level, the programme may be managed by a Village Health Committee. It will be necessary to define what sort of decisions they can make for disposal of their own resources (e.g. the work of the village health worker, and supplies provided by the district office). They may be concerned with ensuring that home visits are carried out with sufficient frequency, and adequately reach the intended malnourished children. If this is not happening, they may wish to tighten up on supervision. If it is happening, they may be concerned whether nutritional status is improving as intended. Equally, they may wish to monitor delivery of supplies from the district level, and have a basis for requesting additional assistance as needed. Fairly simple information is required for this, as illustrated in section C below.

At the district level, the equivalent questions concern:

- are VHW's carrying out home visits adequately?
- are they reaching malnourished children?
- is the development of organization at village level proceeding satisfactorily, e.g. are Village Health Committees being set up, meeting, etc?
- are supplies provision and so forth being satisfactorily delivered from the district to villages?
- if the above are going satisfactorily, is the intended reduction in the prevalence of malnutrition coming about?

The decisions resulting from the answers to these questions may involve supervision, further training, additional support of other types, and so on.

Finally, at central programme management level, there are a further set of equivalent questions, as follows:

- are districts succeeding in implementing the programme as planned in terms of overall activities?
 - are the activities reaching the targetted villages?
- are organizations being set up as intended?
- are supplies, supervision and so forth being delivered satisfactorily, control of district areas?
- is the overall reduction in prevalence of malnutrition on track?

In this framework, there are thus 4 types of information that are regularly important. These are:

1. Activity monitoring (e.g. is the planned number of household visits being carried out?)
2. Targetting (e.g. are these home visits reaching the intended households; are programmes being implemented in the intended villages?)
3. Organization (e.g. are VHC's being set up?)
4. Logistics (e.g. are supplies getting from districts to villages?)
5. Outcome (e.g. is the prevalence of malnutrition declining?)

c) Information needs and dummy tables. Examples of the information outputs that could answer the questions outlined above are given in this section. It is considered essential to reach this level of detail relatively early on in designing the evaluation. Experience has shown that it is the procedure of

drawing up dummy tables itself that begins to define precisely how the system might work, what problems are likely to be encountered, and so on. The examples refer to the general model shown in figures 1 and 2.

(i) Village Level

Activity monitoring

For the example of the VHW, the activity monitored could be number of home visits for education, provision of oral rehydration salts, and referral of sick children. The source of these information would be the VHWs own reporting. The purpose is to check that the VHWs coverage of home visits is in line with the operational objectives in the plan.

Targetting

The example is whether the VHW is successfully reaching the targetted households (e.g. those with children of less than 80% W/A). In this example, full coverage every year (say) is assumed as a basis for village targetting. The table aimed for is as follows, with example figures inserted.

	<u>80% W/A</u>	<u>80% W/A</u>	<u>Total</u>
Visited	20	20	40
Not visited	10	50	60
TOTAL	30	70	100

Coverage (proportion of malnourished children visited) = $20/30 = 67\%$

Focussing (proportion of malnourished children in the households visited) = $20/40 = 50\%$

Population prevalence of malnutrition = $30/100 = 30\%$

(The concepts of coverage, focussing etc. are given in refs 3 and 7).

Outcome

The outcome indicator used as an example is the prevalence of children of less than 80% weight for age. The table aimed for is as follows:

<u>No. of children less than 80% W/A/total children or by weight gain. etc.)</u>	<u>Time 1</u> (e.g. six months ago)	<u>Time 2</u> (e.g. now)
	30/100	28/100

Under some circumstances it may be worth investing in vital registration within the village, e.g. as a function of a Village Health Committee (VHC).

(ii) District level

Activity monitoring, e.g. VHMs home visits

<u>Village</u> than	<u>No. Homes Visited</u>	<u>No. Visits Planned¹</u>	<u>% Completion of Plan</u>	<u>Implementation Greater</u> 75% ²
1	40	50	80%	Yes
2				
.				
.				
n				
<u>Total</u>				

¹ Operational objective

² Criteria for evaluating attainment of operational objective

Targetting

a. For targetted villages, within village targetting.

<u>Village</u>	<u>No. Malnourished Targetted</u>	<u>No. Malnourished Reached</u>	<u>Coverage¹</u>	<u>Focussing, Greater than Population Prevalence?²</u>
1	30	15	50%	Yes
2				
.				
.				
n				
<u>Total</u>				

¹ Criteria needed for adequate coverage, from operational objective

² Test criterion for evaluating whether targetting reaches malnourished preferentially.

b. Between village targetting

		<u>No. Villages Targetted</u>		
		Yes	No	
Programme Implemented in Villages	Yes	4	1	5
	No	2	3	5
		6	4	10

Programme was implemented in four out of the six villages targetted = 67%, and in one village that was not targetted. Switching resources from the untargetted village (top RH cell) to one of the targetted villages without the programme (lower LH cell) is indicated.

c. Logistics

A summary of delivery of supervisory visits and soforth etc. should be included here.

Organization

Village	VHC Formed?	VHC Met?	Budget Voted?	Budget Spent?
1	Yes	Yes	No	No
2				
.				
n				
Total				

Outcome - Say 3 monthly, or annually

a. Village-level outcome (assessed at district-level)

Village	Previous % Malnourished (e.g. six mths ago)	Present % Malnourished	Change, Cases per 100	Adequate ? ¹
1	30	28	-2	Yes
2	36	40	+4	No
.				
n				
Total				

¹ The change in prevalence of malnutrition regarded as adequate is the outcome objective for the village. In this case say 2 cases per 100 per six months.

b. District level

Village	Present Prevalence	Population	No. Malnourished
1			
2			
.			
.			
n			
District Prevalence			

1 This should then be compared with the previous prevalence.

(iii) National level

Activity: CHW

District	No. of Villages with programme	No. of Villages Greater than 75% of Planned Implementation	Etc.
1	5	4	
2			
.			
.			
n			
Total			

1 Operational objectives of ... overall programme should define criteria for evaluating extent of implementation regarded as adequate.

Targetting

a. Within village targetting

District	No. of Villages with Coverage Greater than 70%	No. of Villages with Focussing Greater than Population Prevalence	Etc.
1			
2			
.			
.			
n			
Total			

Need operational objectives

b. Between village targetting

District	No. Villages Targetted	No. Targetted Villages Receiving Programme	Delivery
1	6	4	67%
2			
.			
.			
n			
Total			

1 Needs operational objective

Organization

District	No. of Villages with VHCs formed	With VHC Met	% Implementation in Targetted Villages
1	3	3	50%
2			
.			
.			
n			
Total			

Outcome

a. Village-level progress in reducing mainutrition (assessed at national level)

District	No. Villages with Adequate Reduction of Malnutrition
1	
2	
.	
.	
n	
Total	

b. District-level progress in reducing malnutrition (assessed at national level)

District	Present Prevalence of Malnutrition	Population of Pre-school Children	No. Malnourished	Et
1				
2				
.				
.				
n				
				National Prevalence of Malnutrition

c. Similar information could be tabulated for mortality data if it were available.

d) Information sources, reporting formats, etc.

There are many possible sources of data depending on different programme activities. We have focussed on administrative data as this is usually the most feasible to collect. However, household surveys, periodic village censuses, establishing village vital registration, and so on, may all be as more appropriate under varying conditions. Time and space preclude discussion these here, but this aspect should be developed in future guidelines.

Here again, a crucial step in designing the system is to draft suitable forms for reporting and summarizing. For example, prevalences of malnutrition can be tallied from road-to-health charts. In Indonesia, a tallying system from road-to-health charts provides numbers of children gaining and losing weight, and these data are progressively aggregated up the administrative structure. Similar considerations apply to process data. This step depends on the outputs needed (e.g. as suggested in the previous section), and defining outputs and designing forms should be done iteratively.

Where nutritional surveillance has been set up for programme management (e.g. in Costa Rica), it has been possible to actually simplify existing reporting forms. This may well be common experience, and should be aimed for. Superimposing an additional reporting task on a village worker is unlikely to be well received; making the reporting simpler, by cutting out unnecessary data and streamlining the system, on the other hand, may actually recruit goodwill.

Samples of reporting and tallying forms are quite widely available (e.g. 12). These may provide useful guidance although forms for each specific situation may be needed, and should certainly be field tested.

Planned reporting schedules tend to err on the side of too-frequent, at least for outcome data. For programmes such as the JNSP may support, evaluating changes in outcome once or twice a year may be sufficient. On the other hand, data on activities, targetting and organization are likely to be needed more frequently to allow deviations in programme implementation to be corrected in time - monthly reporting at village and district levels may be appropriate, depending on the local organization. The distinction between how often data are recorded - which could be daily for data derived from clinics or home visits - and how often summarized and reported (e.g. monthly) is obvious but should not be lost sight of.

e) Steps needed to set up evaluation procedure. Having outlined the system for routine evaluation, the requirements for setting it running must be defined. This will depend on local circumstances and resources. Only the headings are given here, which are:

- assigning responsibilities for data collection, supervision, summarization and tabulation, interpretation and transmission of data.
- training
- field testing procedures.
- providing equipment (e.g. scales, reporting forms, etc.)

2. Impact Evaluation

The case for using some resources for evaluating impact may need to be made, since often there are misunderstandings on its role. A number of points are important, and were referred to briefly in section A. Routine evaluation does not give any idea of impact, because the changes that would have taken place without the programme are not known. This may often mask the effect of a program. For example, if a program succeeds in preferentially reaching the malnourished by screening or by targetting worse-off areas, a straightforward with/without programme comparison at one time will show that those with the programme are more malnourished. This can lead to the false conclusion that the programme is ineffective. Secondly, effects of the programme may be masked by "noise" and more detailed study again be needed to find the effect. Thirdly, it is important for those using resources for the programme (government and donors) to know if the program (or parts of it) is having the effect hoped for, in order to replicate the successful parts in future and bring about long-term improvement. The alternative is to blindly hope for the best. In sum, the positive intention of impact evaluation must be stressed: to enable scarce resources to be used efficiently to tackle the problem.

Having made these points, suggestions for design of impact evaluation. usually on a sub-set of the programme (e.g. by area) are needed. The considerations are given in some detail in (5, section 4). Attention to design at an early stage is essential. Often an institution with research capability may need to be brought in to help with the design, and also with the subsequent analysis. Again, dummy outputs should be produced as part of the design. At least the following considerations need to be laid out in the design document.

a) Choice of comparison groups. The object is to get comparisons of with/without programme and/or before/after the programme. Options are given in (5, section 4). These comparisons cannot be exact, and compensation for inexact matching can be made by measuring unmatched factors (e.g. socio-economic status) which are likely to be associated with the outcome to be measured (e.g. nutritional status).

b) Confounding factors. This refers to alternative explanations for the results obtained, which need to be taken into account. Certain types of confounding (e.g. differences in socio-economic status between comparison groups) can be taken into account for to some extent by analysis, if these are measured. Thus, appropriate variables need to be identified early on so that they can be measured at the right time. Other threats to validity, such as changes going on in the overall population (e.g. from economic change) can also be adjusted for. A third important consideration concerns regression artefacts: e.g. if only selected malnourished children are considered, certain of these may improve anyway; this trend can sometimes be allowed for in the design of the evaluation.

c) Analytical capability. In contrast to routine evaluation, assessment of impact requires established analytical capabilities, often including computing facilities. In practice, this often means that a research institution should be involved. Suitable institutional arrangements should be defined and given in the design document.

E. NEXT STEPS RECOMMENDED FOR JNSP

A proposed work plan is shown in Figure 3. The following are some of the steps proposed to get evaluation moving.

1. Agree on strategy. The strategy proposed here, in sum, is to use a mix of routine evaluation for programme management based primarily on data derived from the programme, with a few carefully selected impact studies. The routine evaluation should be built into the programme, decentralized (as far as programme management is), and be along the lines of the general model given in section B. If this can be agreed in principle at the JNSP Steering Committee meeting in mid-April, the guidelines can be quickly finalized at the present level of detail and the next steps can follow.

2. Apply guidelines in selected countries. The procedures suggested in section C can be begun in countries as required, without further delay. A constraint may be identifying suitable consultants, but certain institutional contacts have already been made. (Cornell would be very interested in testing this out in one or two countries). The initial consultant visits may be quite short if it is possible to get the process suggested started. A return visit to review the design document (section D) after several weeks or work have been accomplished may be needed. On occasions, and as part of the learning process to start with, continual assistance throughout this process may be useful.

3. Review experience in application of the guidelines. Every effort should be made to carefully debrief consultants after initial visits on their experiences in using these guidelines. This should allow periodic modification of the guidelines. In addition, consultants' reports on their experience should be detailed and made available to other consultants going on mission.

4. Review design documents. As the procedure begun by consultant visits produces the intended initial designs, copies of these documents should be made available to WHO/UNICEF (and if possible, to other institutions involved) to allow immediate review as to what is coming out of this process.

5. Revise guidelines. On the basis of reviewing the design documents, a short meeting may be fruitful to produce revised guidelines for application to other programmes in the JNSP.

6. Draw up operating manuals based on 2 to 5. The design manuals should, at least in some cases, produce sufficient detail to allow first drafts of the necessary operating manuals to be drawn up. These should then be sent to the countries who by this stage should be beginning to set up the evaluations, in order to get their comments and inputs. As necessary, the operating manuals may then be revised for use in the programmes.

7. Regional training of higher-level staff. By this stage, the senior staff responsible for the evaluation should have been identified, and a relatively short but detailed orientation and training in the principles and practice involved would be desirable. The possibility of setting up regional training sessions should be looked into. (Cornell is planning a short training course in nutritional surveillance, much of which would be relevant, in the Eastern and Southern Africa region, in early 1984).

8. In-country training of other staff. In-country workshops to train those operating the evaluation system will be necessary. This will require some technical assistance, and could be linked to the regional training. In addition, in some cases, technical assistance to provide in-service training for the operation of the evaluation procedures may be required.

9. Operational research attached to systems. It is essential to learn from the experience to produce better evaluation procedures in the future. In certain cases, links with research institutions, either in the countries or from outside, should be set up to allow this operational research to proceed.

10. Design selected impact studies. Less emphasis is given to the impact evaluations, however early thought must be given to their design. Technical assistance and institutional links are likely to be commonly needed. These studies are suitable for inputs from research institutions. One way of proceeding might be to match in-country research institutions with those having experience in this field from outside the country. The impact evaluations should be seen as somewhat separate in the sense that they may be worth some additional investment of resources, which should not detract from the routine evaluations. Decisions on this are needed as soon as possible, and further details of these studies can be written up.

Executive Summary

The JNSP aims to provide health and nutrition through Primary Health Care and other activities organized through community participation. Evaluation procedures are needed to help ensure successful programme management to meet these objectives. Therefore evaluation must include information on both programme implementation and on its defects on health and nutrition. Programme management, organized by building local capabilities, requires decisions at village level, and usually at more centralized administrative levels to support village activities. Supplies must be made available, and local workers trained, supported, and supervised for the programme to work. Decisions on allocating these resources and building up organization requires a certain minimum amount of information. Whilst most decisions refer to regular management, certain more far reaching policy decisions on programme design and replacation are also required. This leads to a distinction between "routine evaluation" for management and "impact evaluation" for longer run policy decisions. Both ultimately have the same purpose - to ensure efficient use of scare resources to improve health and nutrition. Routine evaluation is essentially a management information system.

A general model for routine evaluation involves using the information required for individual decisions by, e.g. voluntary health workers - on diagnosis, treatment, referral, etc. - to guide village level decision making. These decisions are made by village health committees, health workers in clinics, etc. Community participation in running the programme necessarily involves participation in these decisions, and will therefore require some basic information. Progress summarizations of this information from district and central level provides information for routine evaluation at more central administration levels. Village level systems could also run autonomously. Impact evaluation may be based partly on information from the routine evaluation but required careful attention to design and will need addition inputs, for example from national research institutions.

The first steps in designing the routine evaluation procedure require beginning a process of consultation among the institutions and people who will be needed to run the system; programme palnners; management, representatives of the community and services involved, as well as those with particular specialized knowledge. This group should, it is suggested, work towards a design that has essential features as laid out in a proposed "design document" This document itself will be part of the programme plan and arrived at as part of the programme planning.

For routine evaluation the design document, which acts as a check-list, results from an analysis of programme objectives, decision points and decisions to be made, and hence an assignment of information needs and where this information will come from. Important in this process is to draw up dummy (blank) tables of information needed, and then to progressively move towards a workable design. The information output at village level can generally be aggregated to provide the needed information at the next level up. The information suggested under these headings:

1. Activity monitoring (e.g. is the planned number of household visits being carried out? are the planned number of villages being included in the programme?)
2. Targetting (e.g. are the home visits reaching the intended household? are programmes being implemented in the intended villages?)
3. Organization (e.g. are the VHC being set up?)
4. Logistics (e.g. are supplies getting from the districts to villages?)
5. Outcome (e.g. is the prevalence of malnutrition declining?)

Impact evaluation involves a subset of programme participants, and is needed to elucidate changes in nutrition and health due to the programme. It may thus uncover effects of the programme otherwise masked. Design of the impact evaluation requires choice of comparison groups, attention to possible confounding factors and suitable institutional arrangements to provide analytical capability.

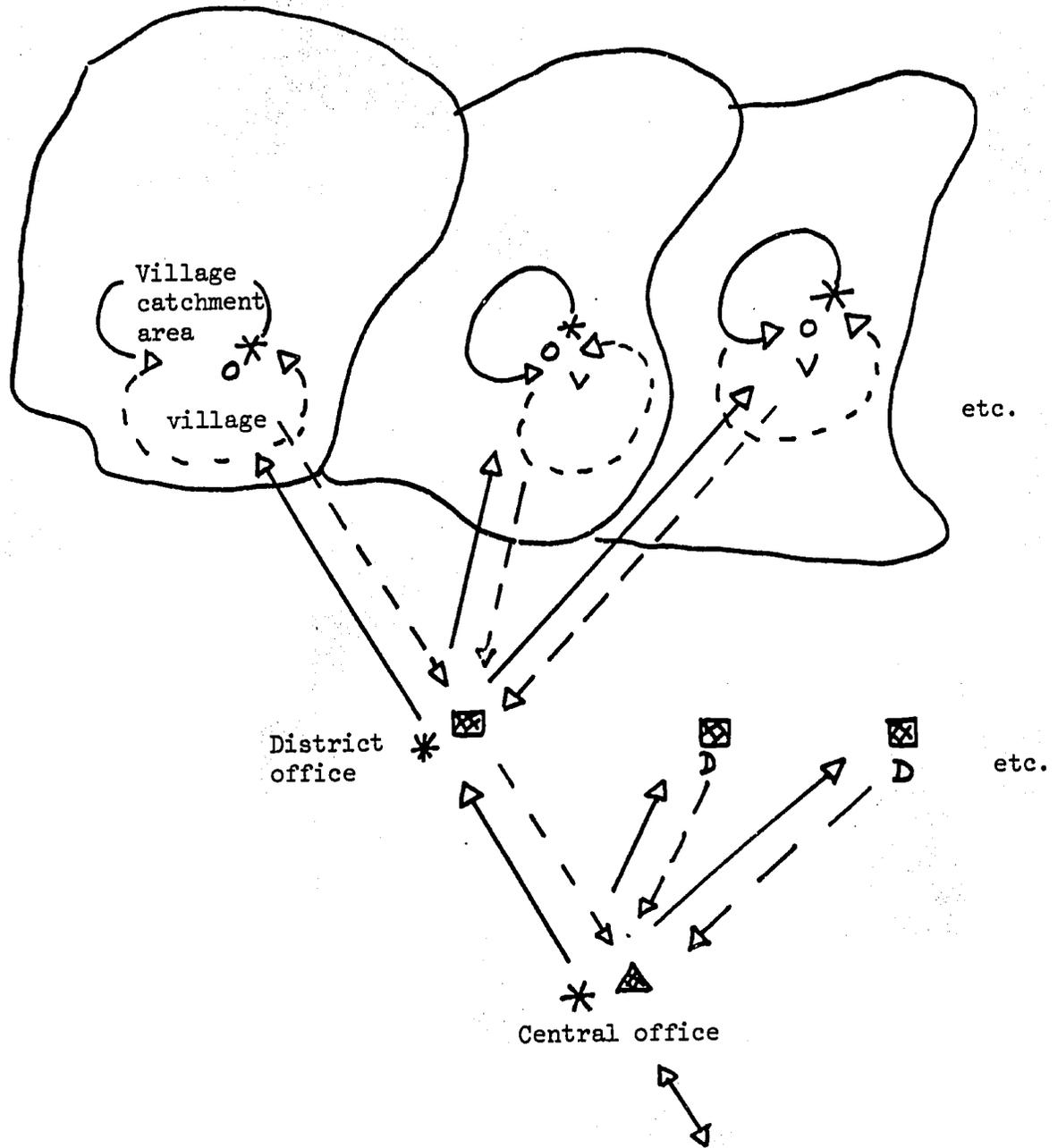
Finally, a series of steps now needed for implementing such an evaluation procedure is proposed. This involves agreeing on the strategy and applying guidelines in selected countries. The design documents-produced and the experiences of applying the guidelines should be reviewed as soon as possible and the revised guidelines and operating manuals drawn up. Training of both high level staff and those operating the evaluation systems is required. Operational research will need to be worked in the systems, to learn from them and improve them. From an early stage, selected impact studies need to be designed.

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Figure 1

Representation of Procedure for Routine Evaluation



Key

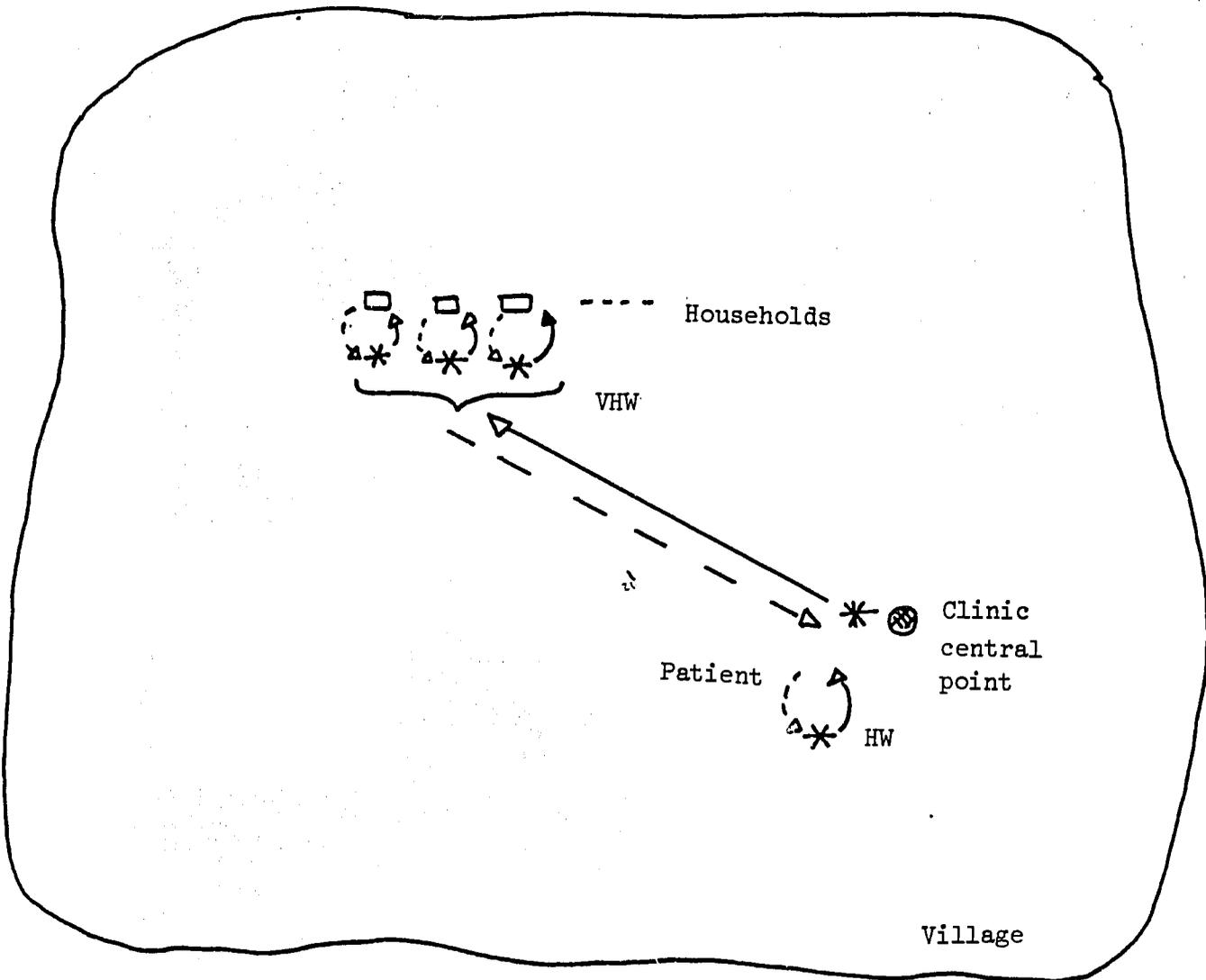
* Decision points, e.g. Village Health Committee, District Planning Office

—> Resources flowing, from decisions

- -> Information flow

26

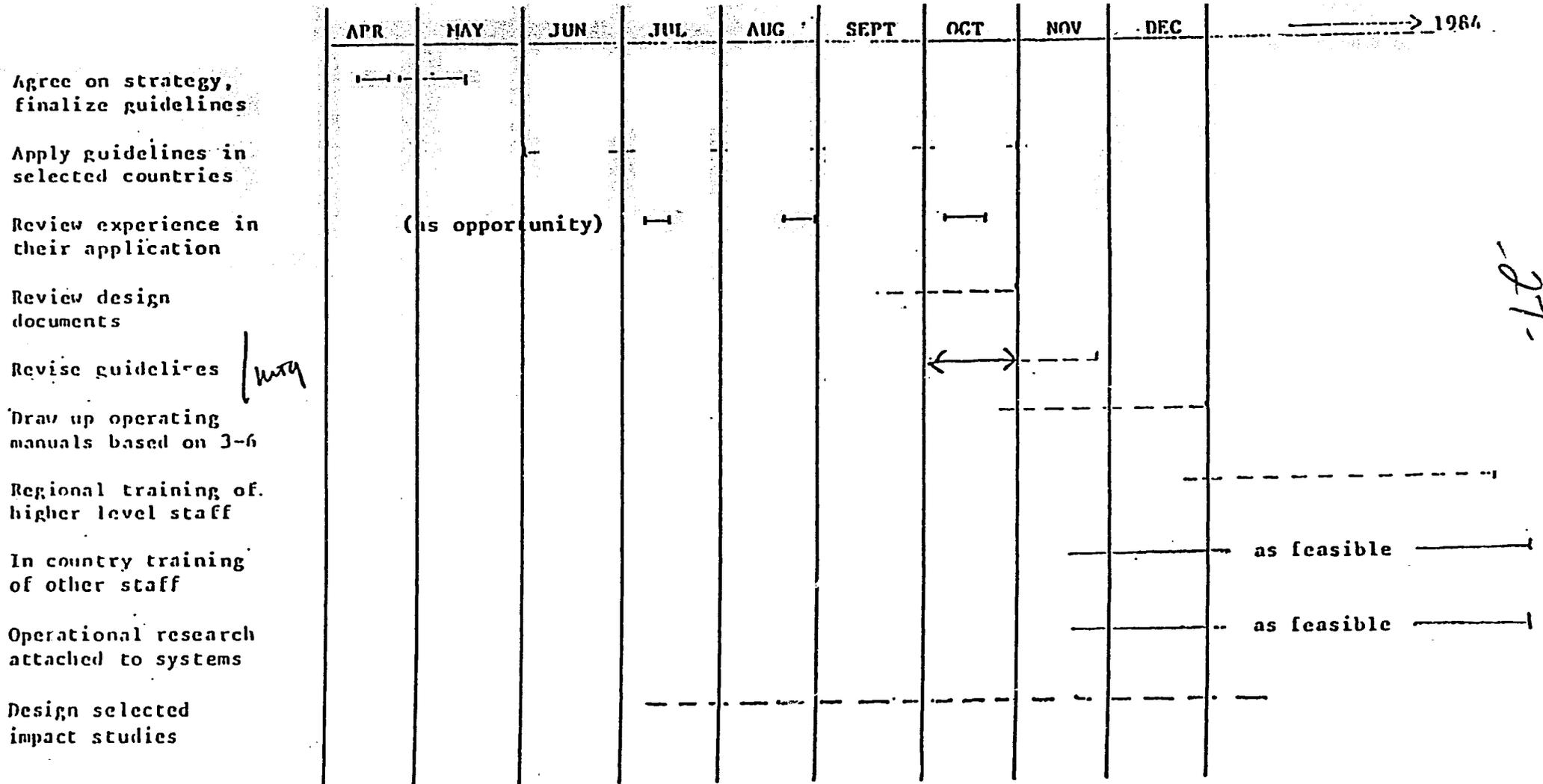
Figure 2



Key: As Figure 1, but refers to home visits by VHW, and clinic diagnosis by HW

Figure 3

PROPOSED WORKPLAN FOR NEXT STEPS FOR JNSI FOR SETTING UP EVALUATION PROCEDURES



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