RECENT EXPERIENCE IN THE MONITORING AND EVALUATION OF NUTRITION-RELATED PROJECTS IN DEVELOPING COUNTRIES: NINE LESSONS LEARNED

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RECENT EXPERIENCE IN THE MONITORING AND EVALUATION OF NUTRITION-RELATED PROJECTS IN DEVELOPING COUNTRIES: NINE LESSONS LEARNED

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Introduction

During the past fifteen years, there has been a significant increase in efforts to monitor and evaluate large scale nutrition projects. This, in turn, stems from an increased appreciation of the importance of M&E in such projects, and from more stringent demands being made by donors.

This paper seeks to draw some lessons from this experience drawing on a large number of projects for which M&E documentation is available. These include the Tamil Nadu Integrated Nutrition Project in South India, the Bangladesh Integrated Nutrition Project, the Iringa Project in Tanzania, the Posyandu projects in Indonesia, the Integrated Child Development Service (ICDS) program in India, the UNICEF-assisted Dular project in Bihar state in India, the HKI Nutrition–Focused Child Survival Project in Mali, the CARE-assisted Child Survival Project in Nicaragua, the Enhanced Outreach Strategy of the Ethiopian Child Survival Project, Save the Children (US) positive deviance-based projects in Vietnam and its Jibon o Jibika Project in Bangladesh, and the Progresa Project in Mexico.

Lesson 1: M&E is Greatly Facilitated by a Conceptual Framework and Attention to Behavioral Outcomes

Traditional project evaluation seeks to determine whether project objectives, usually the desired impacts of a project, have been achieved by comparing pre-post differences in project and control areas. While this may accomplish the narrow purpose of evaluation, it misses the opportunity to understand the means by which project impact has been achieved or the reasons it has failed to achieve desired impact.

Increasingly, therefore, project monitoring and evaluation systems have been preceded by a conceptual framework or dynamic model of a project which essentially provides a “map” of the variables which need to be considered in the development of an M&E system. One system which has worked well for nutrition-related projects, particularly those which have a behavioral change component, is the model presented in Figure 1, here filled out for a simplified nutrition counseling program.

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1 Keynote Address at the International Nutrition Congress, September 2005, Durban, South Africa
**Figure 1: Conceptual Framework of a Simplified Nutrition Counseling Project**

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>Impacts</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-service training of Community Nutrition Workers (CNWs)</td>
<td>Assumptions</td>
<td>Provision of behavioral change communications to the target population</td>
<td>Assumptions</td>
<td>Improved childcare practices (e.g. increased duration of breast feeding, timely introduction of complementary foods, continued feeding during infection)</td>
</tr>
<tr>
<td></td>
<td>Assumptions</td>
<td>Target population understands concepts, is able, willing, and motivated to participate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provision of behavioral change communications to the target population</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design, production, and delivery of behavioral change communication materials</td>
<td>Targeted behaviors are a constraint to child growth</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The column most frequently neglected in nutrition project-related M&E is the behavioral outcome column. Several major projects which have included behavioral change communications (BCC) as a major or the major intervention failed to collect data on behaviors at all, choosing instead what has been termed the “leap to anthropometry.” (i.e. “Having delivered the services, let’s see if it has had an effect on child growth.”) The consequences of such neglect are serious. Without knowing whether behaviors have changed, it will be exceedingly difficult to gauge the sustainability of impacts achieved. In one important project involving BCC exclusively, the “leap to anthropometry” without assessing behaviors found improvements in child growth, but recognized afterwards that this effect may have resulted from a deworming activity carried out simultaneously on the same population of children.

Additionally, the use of a conceptual framework can permit “backward mapping” when evaluative data is combined with monitoring data. If a project has failed to achieve its desired impact, it becomes possible to move backwards (to the left) from the impact column, determining at successive columns whether the requisite behaviors have changed or intermediate outcomes have taken place, and, in turn (from monitoring data) to what extent the project outputs (goods and services) have been delivered. If the outputs have been inadequately delivered, shortcomings in implementation may well have been responsible for the failure to achieve desired impacts. By contrast, if services have been well provided but outcomes and impacts are not achieved, there may a structural problem in the nature of the intervention.

**Lesson 2:** “Process Evaluation” is Usually a Poor Substitute for Project Monitoring
Frequently an evaluation includes, either as part of a final evaluation or a mid-term assessment, a “process evaluation” which seeks to assess the implementation of a project and its quality. Such “process evaluations,” often carried out by individuals external to the project, however, even if successful in capturing the state of implementation at that point in time, are poor substitutes for ongoing project monitoring which should take place from the onset of a project. The primary value of such monitoring is project management and the opportunity to address implementation problems quickly as they arise. Making an assessment of implementation at the mid-point of a project, accordingly, may well mean that serious implementation difficulties remain unaddressed for the first half of a project.

Lesson 3: But Monitoring Data Must be Utilized Locally

Where monitoring data is collected, the process often simulates a succession of post offices. Data is collected locally, aggregated, sent to the sub-district level which aggregates data from each of the localities and sends to the district level where this takes place again and is dispatched to project headquarters where the data may be entered into a management information system. Being on notice that localities need “feedback” from the MIS system, reports may then be dispatched from project headquarters to the decentralized points – generally many months after the data has been collected, and seldom in a sufficiently disaggregated form to be useful.

Such a system largely negates the primary purpose of monitoring, i.e. the ability to quickly correct problems in implementation. Far more desirable is a monitoring system which places a premium on local utilization of data. This means, initially, a critical local examination of data being collected, particularly to identify shortfalls in coverage. It then means that at every successive point of aggregation, and prior to aggregation taking place, data from the localized areas are assessed using the principle of “management by exception.” This means, simply, that every local area where, for example, growth monitoring coverage does not meet a minimal percentage level or “trigger level” (say 80%), a red circle is drawn around that entry and follow-up action is “triggered” to address the problem – with a report on that follow-up action becoming an automatic part of the process the following month.

Recognizing, however, that monitoring data frequently overestimates project success (a phenomenon found in many projects as local staff, unsure of their job security and anxious to please, may inflate monitoring reports), periodic quality checks on monitoring data is essential. This task relates specifically to Lesson 4.

Lesson 4: Large Projects Require an Ongoing External M&E Presence

Among the serious problems which have plagued M&E systems are the following:

- Separate bidding for baseline surveys, mid-term evaluations and endline surveys often results in two or even three external entities, often private consulting firms, being responsible for a survey. Even with the best project management, it rarely is possible to maintain the same survey methodology with different firms responsible for the surveys. (This problem has particularly plagued major nutrition programs in South Asia financed by large donors with established bidding processes.) Additionally, external entities brought in to carry out one such
survey rarely have a broad understanding of the project as a whole, and rarely take the time to assess project implementation.

- Monitoring data, as indicated in Lesson 3 above, is often inflated, requiring periodic quality checks.
- Monitoring data also requires periodic disaggregation. It may seem adequate to have 80% of young children participating in growth monitoring. But if the 20% who aren’t attending are female children, or come from particularly food-insecure households, or represent a minority religion, class or caste, a problem exists which needs attention.
- Ongoing review of monitoring data frequently leads to questions which need quick answers and which require operations research (OR). Such OR may be carried out to determine the extent to which targeted children consume “take-home” food, or may involve the creation of an alternative intervention scenario, e.g. assessing capacity to change behavior without the “draw” of a food supplement.

The gnawing presence of these problems in so many large-scale projects suggests the value of an ongoing external presence in a project. Such a presence not only could have responsibility for the project’s baseline and evaluation surveys, but also could carry out periodic checks of monitoring data, periodically disaggregate monitoring data, and be prepared to address operations research questions as they arise. The result not only will address each of these problems but, additionally, will result in evaluation reports based on a thorough understanding of the project.

**Lesson 5: Control Groups are Often Inadequately Comparable**

A huge problem rendering suspect the results of many evaluations is the absence of control groups that, except for the absence of the project under consideration, are genuinely comparable to project areas. This absence of appropriate controls often relate to one of the following three situations:

- Some projects with serious funding limitations remain unconvinced that spending limited resources on a control group is necessary.
- In larger national or regional programs, governments often prefer to choose project areas (and by default control areas) on political grounds.
- In some countries, the presence of proliferating local activity throughout the country, often generated by NGOs, makes it impossible to find true control areas. Alternatively, the project may be implemented nationwide or nearly so, with those few areas not covered unlikely to be representative of the project areas.

Project managers in the first of these categories often need to be convinced that even positive change in a project area will leave unanswered the question of the extent to which such change can be attributed to the project. This is particularly true in countries experiencing rapid secular change. Similarly, the absence of positive change may not indicate project failure if the areas being studied are undergoing difficult transitions, poor

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2 Use of the term “external” here suggests only that it be external and independent of the project and not that it involve expatriate individuals.
harvests or emergency situations – changes difficult to quantify without control groups which indicate the change that would have taken place without the project.

The second and third situations are more difficult. With respect to the second, the political selection of project and control areas eliminates randomization in the selection of areas, i.e. an ideal situation in which every area has the same likelihood of being selected as a project or as a control area. In some contexts the political reality simply negates that possibility. But evaluation organizations may be able to exercise some leverage. In the important PROGRESA (now called OPORTUNIDADES) project in Mexico, the International Food Policy Research Institute (IFPRI), hired to conduct an evaluation, simply indicated its unwillingness to participate in the evaluation unless project and control areas were randomly selected. The result was a strikingly transparent process where a young girl on national television selected the names of project areas from a glass bowl. IFPRI has successfully required random assignment of project areas as a condition of conducting a program evaluation in several other countries including Honduras and Nicaragua.

In the case of the third situation, there may be no adequate solution. If the project is being implemented in stages with areas entering the project at each phase randomly selected, it may be possible to use an institutional cycle design in which a series of before-implementation measurements as each phase begins can be combined to provide a kind of randomized control group, while the after-implementation measures can be combined to provide a rough equivalent of a randomized participant group.

Alternatively, it will be necessary to identify clearly the competing hypotheses which might explain change in project areas, and to carefully track each of these competing hypotheses over the life of the project.

Lesson 6: There Needs to be Baseline and Evaluation Data Collected for Each Project Objective Specified

All too frequently, the objectives of a program are specified without adequate thought given to the process of evaluating, by the end of the project, whether the objectives have been achieved. The former appears easy. The latter can be complex. Examples therefore abound of projects with specified objectives which are not addressed in baseline and subsequent evaluative surveys.

In some cases, absence of baseline survey indicators reflects the perceived difficulty of collecting the information. This is particularly true when objectives pertaining to the reduction of micronutrient deficiencies require the laboratory testing of blood or urine samples which may be not be possible in a particular setting. In the case of at least some micronutrient deficiencies, there may be proxy indicators which can be used (e.g. night blindness as a proxy for vitamin A deficiency.)

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3 Bangladesh is a classic example of a country with considerable NGO activity taking place in every district and “upazila.” The Indian ICDS program now covering nearly 90% of rural development blocks, is one where the 10% of blocks not covered are unlikely to be representative and thus would be inappropriate to utilize as controls.
In the case of other objectives, there may be no option but to collect the necessary baseline and evaluative data. A prime example is birthweight data. To date, few major projects seeking to affect pregnancy outcomes have taken the trouble to collect baseline data on birthweights in project and control areas. The result, not unexpectedly has been a serious inadequacy in the evaluation of large scale pregnancy-related projects to date. Where efforts have been made to collect such data in an evaluation (one example is the Bangladesh Integrated Nutrition Project), this has required the placement of birthweight data collection teams at centralized locations, and financed arrangements with local individuals to advise the team immediately of births as they take place.

Lesson 7: We Need to Evaluate the Distribution of Benefits in Projects

Difference of differences analysis which compare the post-minus-pre changes in project and control areas is really looking to average changes which often camouflage the effect of the project on particular population groups. Importantly, even a project which has successfully attained its stated objectives may not have been successful in improving the nutritional status of women or children from low income households, or in bringing about the same percentage improvement in these disadvantaged children compared with more advantaged ones.

We in the nutrition community, who often represent the “conscience” of the larger development community in seeking to assure equitable patterns of development, need to make efforts to assure that our own projects have a desirable distribution of benefits. Evaluation of existing efforts is a valuable step in that direction.

Lesson 8: Measuring Cost-Effectiveness is Essential

The measurement of project effectiveness, regardless how accurately determined, is inadequate in project evaluation unless coupled with cost-data. Yet only a small proportion of nutrition project evaluations include any cost data at all. Examples abound of impact achieved in small projects with a level or quality of inputs that would be difficult to sustain in larger or longer term projects. Accordingly the cost-effectiveness of a project, i.e. the cost per unit or percentage change in an impact indicator, is essential if projects are to be used as a basis for comparison and as models for subsequent endeavors.

Lesson 9: Exit Strategies and Sustainability also Need to be Evaluated

An unhealthy tendency in nutrition projects and project evaluation is the short term project aggressively pursued and rapidly evaluated without thought given to the longer term sustainability of the impact achieved. This is particularly common in the case of competitive private sector organizations anxious to compile a “track record” of success to utilize in subsequent contract proposals. Returning to these areas, thereafter, frequently reveals that the impact achieved, in the absence of follow-up activity or the reinforcement of messages, diminishes over time.

Clearly necessary, therefore, as part of the project design responsibility of time-limited projects is the development of exit strategies, laying out, with the same intentionality, a plan for at least the maintenance of outcome/impact levels achieved by the project. A project’s progress in implementing this exit strategy then needs to monitored along with the project itself, and the exit strategy needs to be evaluated. Evaluation of an exit
strategy, by definition, requires the collection of data on outcomes and impacts, at periods subsequent to the termination of project inputs. Such an effort, important as it is, is hardly ever reflected in project budgets and rarely carried out.

Recognition among those involved in project design that the design and evaluation of exit strategies is necessary (or an insistence upon it by enlightened donors) will be enormously valuable in sharpening the sustainability promoting features of projects, and in turn increasing the likelihood that project impacts and outcomes will, in fact, be sustained well beyond the period of a project.

**Conclusion**

Increasingly, project monitoring and evaluation processes are capable also of affecting project design, project management and project sustainability. Efforts must be made to shape M&E efforts in ways which maximize these effects and, in turn, increase the impact of our projects on the disadvantaged in developing countries.