Section I: The expanding role of qualitative research in international development

Section introduction

This section deals with those papers which opened the RAP Conference and were intended to define the parameters of the methodological approach and set a stage for further discussion. The role of qualitative research in international development is defined and analyzed by Cernea and Pedersen and more specifically in the field of nutrition by Scrimshaw and Pelletier. Rhoades' paper, which although not presented at the conference was specially requested by the editors for inclusion in this volume, adds additional fuel to the growing debate on the usefulness and cost effectiveness of much of the past and current studies which are intended to inform the development process.

These papers provide a review of the foundations upon which RAP and RRA rest. They reflect the excitement of an emerging field as well as the need for caution against arrogance and the need to maintain professionalism and scholarship as guiding beacons for further developments in these qualitative fields.

4. The role of qualitative methodologies in nutritional surveillance

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As a chapter also published in a new manual, Methodologies for Nutrition Surveillance, this paper raises two related issues which were both focal points of the conference. The first is that qualitative methods like RAP are essential investigatory tools for the follow-up of quantitative studies that search for explanations and solutions of identified nutritional problems. They are important to bring needed data to inform strategic decisions in the programme planning, evaluation, and adjustment loop. The second is the issue of institutionalizing RAP through professional training inside each country where it will be used. The translation of information gained through quantitative tools of nutritional surveillance into programme policy and strategies is seen here as being effectively and essentially mediated by the national ability to use methods such as RAP. - Eds.

THIS PAPER, EXCERPTED from a section of a manual on Methodologies for Nutritional Surveillance, was prepared under the auspices of the Cornell Nutritional Surveillance Programme and drawn from experience gained under the Cooperative Agreement between the Office of Nutrition, Bureau of Science and Technology of USAID and the Colleges of Human Ecology and Agricultural and Life Sciences at Cornell University.

Introduction

A discussion on the issue of whether and how qualitative methodologies, whether rapid or not, can contribute to the field of nutritional surveillance is long overdue. Nutritional surveillance is one of the many planning-related fields that has suffered from what might be termed a "quantitative bias" in its approach. It is encouraging to see a growing receptivity - at least in certain quarters of some major donors - to complementing the existing set of planning and evaluation tools with a variety of qualitative approaches. One of the purposes of this paper is to examine the ways in which qualitative approaches could significantly strengthen nutritional surveillance activities.

At a higher level of analysis this paper also raises the question of whether and how qualitative approaches can be successfully transferred to developing countries with the requisite levels of training, sophistication of method, and validity. Indeed, there is a need not only *to transfer* these, but also to *institutionalize* them in the policy-making, planning and management of programmes in developing countries. Although this is a desirable goal to pursue, a number of questions exist concerning how to achieve it in an acceptable manner. There are important lessons from other fields - such as nutritional surveillance itself, previous multisectoral nutrition planning, and farming systems research - in which theoretically attractive approaches to planning were developed but that encountered a number of difficulties in practice. This is illustrated below and the implications of these lessons for extending RAP or other qualitative approaches to developing countries are examined.

Nutritional surveillance: Objectives, principles, and lessons

The immediate impetus for launching nutritional surveillance as an ostensibly new set of activities to assist in the alleviation of world hunger and malnutrition was the World Food Conference of 1974[1]. The concept, based on the model of infectious disease surveillance, sounded straightforward in principle, even if a bit on the ambitious side: To establish an ongoing system for generating information on the current and future magnitude, distribution and causes of malnutrition in populations - with emphasis on protein-energy malnutrition - in order to assist governments and international agencies in policy formulation, programme planning, management and evaluation. Attention was to be given to situations of acute food shortages as well as chronic malnutrition.

These broad objectives of nutritional surveillance and some guiding principles were published in 1976 by WHO, based on expert consultations, and subsequently elaborated upon by the Cornell Nutritional Surveillance Programme (CNSP) in 1984[2]. CNSP itself was established in 1980 by a Cooperative Agreement with USAID in order to develop and disseminate the principles and methodologies of nutritional surveillance and to gain case-study experience. On the basis of

CNSP's 1984 publication, and a number of experiences since that time [3], a number of principles have been articulated as described below.

As stressed in the 1984 publication [2], no one surveillance system can satisfy all the information needs implied in the original statement of objectives suggested by the WHO expert group. Instead, it appears that four distinct approaches should be recognized, based on the purpose for which the information is to be used [41. The four uses of nutritional surveillance are:

- Problem Identification and Political Sensitization
- Policy Formulation and Planning
- Programme Management and Evaluation, and
- Timely Warning and Intervention [5]

The rationale for distinguishing these four types is that each has its own requirements in terms of the types of data, periodicity, the need for predictive versus reflective indicators, the modes of data collection and analysis, the clients for that information, and so on [6]. In recognition of this, it was proposed that the development of nutritional surveillance activities in a country be preceded by an initial assessment of some three to six months, during which time decisions should be reached concerning the type of systems needed, the specific users and their information needs, institutional arrangements, and a work plan for designing a system to meet those needs.

One of the immediate lessons for RAP lies in the observation that, despite these distinctions having been documented and widely disseminated through publications, training courses, etc., the vast majority of countries embarking on nutritional surveillance did so without having performed the prior steps of identifying decision-makers, the decisions requiring information and, thus, the type of surveillance systems required. Instead, the most common form of nutritional surveillance attempted - and with limited success - would be more appropriately considered "nutrition monitoring" [7]. That is, the aggregation of data on the nutritional status of the population over time, usually in the form of weights and/or heights of clinic attenders or school children. This is illustrated below, followed by a discussion of how it relates to RAP.

In the output from one such surveillance system the prevalence of malnutrition among clinic attenders was plotted over time for each clinic along with the overall rate for all clinics combined. While such analysis disaggregates the trends by clinic, similar disaggregation could be and has been done at higher administrative levels as well, such as districts, regions and provinces in various countries. Apart from the question of validity that has never been properly answered for three kinds of data, a major limitation of such outputs is the lack of ancillary information on the factors responsible for the observed trends. It is therefore difficult to imagine what decisions and *immediate* action could be taken in response to information of this type.

Even when ancillary data are available from other administrative sources, they are generally adequate only for confirming that locations with a high prevalence of protein-energy malnutrition (PEM) also have a high prevalence of socioeconomic deprivation according to multiple indicators. However, these ancillary indicators are not suitable for pinpointing the specific factors requiring intervention. This is because of the multicollinearity among them, the

inability to conduct the analysis at the individual or household level, the generally crude, proxy nature of the indicators, and the fact that information is typically available on only a few of the potential causes or intervention points. Thus, outputs such as these may be useful for political sensitization and geographic targeting, but do not indicate to planners or policy-makers what types of interventions should thereby be targeted to high-prevalence areas.

One of the attractions of these data is that they are often available through administrative sources, and merely need to be captured in an on-going fashion to turn them into a "nutritional surveillance system." However, the tendency to use those data that are readily available rather than those actually needed to support different categories of decisions may be one of the important reasons for the non-utilization of such data in decision-making. As elaborated in a recent publication [8] the extensive experience with this type of surveillance system in the countries of Central America and Panama have revealed far fewer tangible results than one would have hoped for, and this disappointing experience is not limited to that region.

The difficulties described above in the case of nutritional surveillance may have parallels with RAP. The diversity of applications for which RAP is relevant is clearly a potential strength rather than a weakness of the approach. However, the diversity of approaches being grouped under the term "RAP" does require serious examination. In particular, it would be useful to develop a topology of applications for which RAP might be appropriate and examine the implications of this for how RAP should be conducted. For example, one might distinguish between the use of RAP to enhance local participation in development planning versus its use as a technique for simply collecting information for managers, planners, and policy-makers. Such a distinction has clear implications for such things as who does the RAP, how rapidly it can/should be done, who should be the informants or participants at the local level, the degree and type of information bias to be expected and how it might be assessed and taken into account, what types of reports are required, etc. [1] In contrast to the case of nutritional surveillance in which the choice of methods and data sources was driven by consideration of what data were already available (i.e., the importance of the topology has generally not been appreciated), RAP has the potential to mold itself more closely to the problem at hand. Thus, the development of a topology of RAP applications and corresponding RAP guidelines could make a significant improvement in the use of RAP.

A second principle based on experience - which creates one of the rationales for linking qualitative methodologies to nutritional surveillance - is that the infectious disease model of surveillance is usually not the most appropriate one for nutritional surveillance. Under this model, which is best exemplified by CDC's system of weekly morbidity and mortality reports, a continuous system of reporting is put in place that will alert public health authorities to the location and magnitude of outbreaks of disease, so that well-defined methods of containment and control can be activated. Thus, an ongoing system of information leads to decisions and action in a rapid and continuous fashion.

With the exception of *nutritional* surveillance for timely warning and intervention, this model has, if anything, misled the design of nutritional surveillance systems. The reasons have to do in part with: 1) the complex etiology of chronic PEM, involving two proximate causes (inadequate nutrient intake and disease) and a myriad of context-specific contributing causes; 2) the equally

complex decision-making processes at the policy level on a myriad of policy matters that bear on PEM; 3) the institutional responsibility for monitoring and acting upon PEM is not nearly as clear-cut as with infectious diseases; and 4) in the case of chronic PEM it is clear that changes in population nutritional status do not occur with nearly the rapidity seen in the disease outbreak model. In principle this should remove the rationale for a *continuous* surveillance system, and replace it with one that reports on a periodic basis of years rather than weeks or months.

The translation of nutrition information into decisions and action has more demanding information requirements, involves more obscure decision-making processes, and is more protracted in time than in the acute infectious disease model. Seen in this light it is not surprising that nutritional surveillance of the simple, nutrition monitoring type is hard-pressed to show evidence of positive impact on decisions, action or nutritional status, outside of its important role in political sensitization. It is of interest to note that efforts to develop principles for surveillance of chronic diseases are encountering similar difficulties because these diseases possess many of the properties described above for PEM[9].

The role of qualitative methodologies in nutritional surveillance

Timely warning and intervention systems (TWIS)

Timely warning and intervention systems, abbreviated TWIS, are relevant in those situations in which natural or man-made events create a threat to household food security on a recurrent basis, beyond that seen in response to seasonal fluctuations in normal years. In such cases it makes sense to develop a system that can alert decision-makers to a possible food crisis with sufficient lead-time to permit decisions to be taken and interventions to be mobilized to ward off a disaster. The minimal requirements for designing a TWIS, therefore, are:

1. A system of simple, *predictive* indicators that can be collected locally and transmitted to appropriate levels in a timely fashion. Note that this typically does not include nutrition status indicators (see point 4 below).

2. Agreement between technicians and decision-makers concerning the choice of those indicators, their interpretation and the cutoff levels to define action.

3. Pre-identification of intervention options suitable for a variety of circumstances, that can be rapidly mobilized in response to the information system.

4. A set of fail-safe indicators that provides at least late indication of those areas in need of intervention but which were missed by the earlier indicators for some reason. This may include nutritional status indicators, among others.

5. A clear decision-making algorithm with tight bureaucratic integration with the information system.

In designing and operating a drought-related TWIS in Central Lombok District of Indonesia qualitative methodologies have been employed at several stages [10, 11]. For instance:

1. They were used to decide which of the existing agro-meteorological (ag-met) indicators collected by extension workers and others might be the best predictive indicator of food crises. In order to identify the best predictor, each of the potential ag-met indicators was analyzed statistically in relation to the occurrence of food crises based on historical experience.

2. The fail-safe indicators used in Indonesia were also developed through qualitative interviews with local respondents. In this case the indicators were based on household food consumption behaviours, namely the number of days in which rice was *not* consumed or in which wild roots were consumed over the previous five days.

3. A third use of qualitative information in the Indonesian case is seen when the district officials are alerted to an impending food crisis in several areas based on either the early or the late indicators. The first response is typically to dispatch a team from the district level to the problem areas to confirm the existence and the context of the crisis, in order to decide among several intervention options.

4. Finally, qualitative approaches have more recently been applied in Central Lombok to evaluate the extent to which this system has actually triggered decision and action in recent years [12].

Nutritional surveillance for policy and planning

Nutritional surveillance for policy and planning is the most difficult type to implement well and, the most difficult type to demonstrate the impact of information on decisions and action. In this section two examples of outputs from surveillance systems in this category are presented to illustrate how qualitative methodologies have been applied in the past and where considerably more work is needed in the future.

For a national sample survey conducted in Costa Rica, results of the prevalence of low weight-for-age in children was stratified by the father's occupation. In this study there was a clear gradient in prevalence rates from top to bottom, with labourers in sugar-cane and banana plantations showing the highest rates of malnutrition. In response to these results a three-month, focussed, ethnographic investigation was launched to identify the specific behavioural or environmental factors responsible for the high rates on these plantations [2, p66]. This study implicated poor water and high food prices as the likely reasons for this finding, and led to legislative action.

Results from a national sample survey of selected provinces in Kenya in 1978-1979 [13] showed the prevalence of stunting to be 50% greater among children in households growing hybrid maize among those households cultivating less than 1.5 hectares. No such association was found among households cultivating more than 1.5 hectares.

Since results such as these from Kenya are typical of the surveillance outputs based on sample survey data it is worthwhile to examine in detail the possible policy recommendations from such outputs. In a well-reasoned discussion of these results the authors stated:

One possibility is that the local maize varieties are resistant to drought and yields are less variable, even if lower on average, than the hybrid varieties. Early adopters of the new varieties may not in fact have achieved the expected increases in yields due to unfamiliarity with the techniques or unavailability of other inputs required, or to failure to purchase new hybrid seeds for subsequent plantings, or they may have reduced acreage planted to maize by a greater proportion than the increase in yield and thus had less of their own produce to consume ... This somewhat surprising association, if causal and if confirmed by later surveys, would have important implications for crop policy. Hybrid maize varieties are being promoted as higher-yielding and (presumably) more profitable for farmers, and it is worrying if they are in fact leading to a deterioration in child nutrition. [13, p.306].

Thus, the primary conclusion in this report, based on this and related findings, was that further investigation was required in order to better understand the reasons for the observed differences in nutritional status among different agro-ecological classes of farmers. Such a conclusion is actually the only responsible one, based on the available information. However, the general experience has been that, contrary to the Costa Rica example, such second-stage investigations are seldom launched in practice and the institutional capacity for doing so is often weak or non-existent [14]. This may be one of the reasons why the loop connecting information, decisions and action has not been completed, since planners and policy-makers are too often left with a series of suggestive associations and no clear, justifiable recommendations for action. This represents a major area in which RAP-type investigations could make a significant contribution to nutritional surveillance, in providing a timely and feasible mechanism for answering the context-specific questions raised by surveillance outputs.

Endnote

1. It is for these reasons that the title of this paper and the preferred term as used in the text is qualitative methodologies rather than RAP. The former is considered a more generalized concept in its methods and applications, and is better suited to describe the qualitative approaches discussed here in connection with nutrition surveillance.

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COMMENT:

Nutrition covers many sectors. We need to find the emic point of view. At the regional and local levels - how do we institutionalize nutritional surveillance.

COMMENT:

The most useful process for educating decision makers had to be carefully identified and the choice of leaders is critical. Many researchers are more hesitant than necessary in revealing data.

People who are encountering problems are eager to receive what we are developing. It is important to keep the information available and visible along the way.

COMMENT:

The development of RAP requires sensitivity to decision-making.

COMMENT:

This paper is welcome and it reflects expertise in nutrition surveillance that seems to reside in Northern countries. It will be important to better explore and where necessary strengthen national capacities for national surveillance in developing countries.