35. From qualitative community data collection to programme design: Health education planning in Niger

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When the project focus is health education as in this paper, few would question the need to develop a clear picture of community behavior, attitudes, and knowledge on the project focus, in this case, control of diarrhoea. But as the paper indicates, more than information and a baseline behavioral set was obtained. This systematic, step-by-step description of the use of RAP in planning a health education programme demonstrates both the potential for bringing programme planners into the community as well as involving the community itself as a source of useful input into programme strategies. The paper details a multi-stage planning process that includes a feedback loop to the community during the planning cycle. The approach described appears to be equally valid for a far wider range of programmes than those dealing with health education. - Eds.

THE QUALITY OF community health education programmes depends in part on the process used to develop such programmes. There is a need for indepth, qualitative community data to be collected prior to developing health education programmes. This is often not done by most ministries of health. Three other aspects of planning closely related to the quality of programmes are: who is involved in both preliminary data collection and in programme planning; the extent to which planners have had contact with the communities they are planning for; and whether programme development is viewed as a top-down, mechanical process or as an iterative, problem-solving process.

The significance of these four aspects of the planning process is discussed below. A health education programme planning exercise carried out in Zinder, Niger is described. The planning exercise had two parallel objectives. The first was to develop a health education strategy appropriate for the socio-cultural realities of the Hausa communities in the area A second was to introduce an innovative programme planning methodology into the regional health education department.

Data base for programme planning

There is increasing recognition of the need to base community health programme planning on an in-depth understanding of local health-related situations, beliefs and strategies [1, 2]. Similarly, there is a growing consensus that to plan health education quantitative survey data are insufficient, and that in-depth qualitative data on health-related phenomena are necessary [3-5].

The collection of qualitative data on community beliefs and practices, specifically on diarrhoeal disease, prior to the development of health communications and education activities has been carried out in a variety of settings [6-9].

Pacey [10] insists upon the value of rapid, cost effective informal data collection techniques to allow rural development planners to collect accurate information on community perspectives. He concludes, "Probably the most important information about rural situations is obtained by talking and listening to rural people."

In formative data collection efforts more attention needs to be given to specifying the information needs of programme planners and to defining how data will be used once they are collected, in order to decrease the gap between research and practice.

Responsibility for data collection and programme planning

Another related aspect of the programme development process is that of who is involved in formative data collection and who is responsible for programme planning based upon the data collected. The outcomes of the data collection and programme planning processes are significantly influenced by the training, values and experiences of those involved in those activities. Also, continuity in terms of the involvement of some of the same people in both data collection and programme planning is important.

Programme planners' backgrounds, values and attitudes are reflected in the programmes they develop and, therefore, determining responsibility for health education programme planning is of critical importance [11]. Programme planning is often done at the central level by programme managers who were not involved in collecting community data and who have only a superficial understanding of either community or service-provider perspectives on a given set of health problems.

To the extent possible, it is valuable for both programme managers and service providers to be directly involved in formative community data collection and in defining programme strategies. In the data collection phase, such involvement can: assure that programme planners' priorities are addressed; take advantage of service providers' greater understanding of community values and practices; foster learning and teamwork between service providers and programme managers; demystify the data collection process; strengthen health sector technicians' skills in community data collection; contribute to a sense of ownership of the study findings on the part of participants and of their commitment to using them in programme planning. In the programme planning phase, it is also valuable to elicit the participation of both health education programme managers and of service providers. The perspectives of the two levels of staff relative to a given programme area typically differ, and during programme planning it is beneficial to take those different perspectives into account [12]. Lastly, assuring some continuity between those involved in data collection and those involved in programme planning can contribute to a greater and more accurate use of formative data collection findings.

Contact between programme planners and target communities

The extent to which programme planners have contact with the communities for whom they are developing programmes is another important aspect of the planning process. Often those responsible for planning community health programmes have had little or no direct contact with the communities for whom they are designing programmes. Furthermore, the perspectives and values of health professionals and of communities regarding community health problems are typically different [13, 14]. The inherent gap between the culture of the health planners and the culture of the community, compounded by physical distance between the two, represents a serious obstacle to the development of socio-culturally appropriate programmes. In addition, evidence from various countries suggests that the attitudes of health professionals towards communities are often negative and condescending, particularly when those communities are poor and uneducated [15-17].

Direct contact between programme planners and target communities during the planning process is valuable. Pacey [10] argues that, if those responsible for developing community health programmes spend time in villages, and if they informally interact with, and collect information from communities, they may be more likely to develop programme strategies that take into account the community's point of view, resources and constraints.

Concept of the planning process

Two distinct approaches to programme planning have been identified: the "blueprint" and the "learning process" approaches [18]. In the first approach, technical experts, at the national or regional level, design programme "blueprints" that are communicated to field staff for implementation. Such topdown planning seldom takes into account the concerns and perspectives of field workers and even less so that of communities themselves. In the learning process approach, the programme design and the capability to implement it are developed in consultation with community beneficiaries and programme implementors to take into account the concerns and priorities of each. In this approach technical experts acknowledge that their technical knowledge is necessary but not sufficient for programme planning, and that only through ongoing dialogue with the programme beneficiaries and implementors will they discover how to design more appropriate community programmes. In this approach, the programme plan remains flexible and as it is implemented, as feedback is received from community beneficiaries and field staff, programme managers are continuously learning how to modify and improve programme strategies. Relative to Korten's topology [18], it is argued that the planning process used to develop community health programmes should be participative, iterative and a learning experience for those involved. The following section describes a diarrhoeal disease health education programme planning exercise in the Zinder region of Niger in which particular attention was given to the four aspects of the planning process discussed above.

The Niger programme planning experience

In November 1989, the Ministry of Health in Niger was involved in the initial stages of

developing a child health project in the Department of Zinder in the eastern part of the country. This project is being implemented by the Ministry in collaboration with CARE International, a non-governmental organization. Health education is one of the main components of the project. Salient characteristics of the planning exercise in Zinder were:

1. Health education programme managers and health service providers were involved in all steps of the data collection and programme planning process.

2. A process learning approach to programme planning was employed that combined bottom-up and top-down planning.

3. The first step in the planning process was the collection of qualitative information from several of the villages in the catchment area using informal data collection methods.

4. Based on this data, proposals for the health education content and for the communications strategy were formulated, and subsequently, the planning team then returned to the villages to get feedback from the community on those proposals.

5. Based on the community feedback, the educational strategy was revised and finalized.

A team composed of technicians from both the Ministry of Health and the Ministry of Planning participated in phases one through three. The Ministry of Health participants included the two regional health education directors, a senior male nurse and three female nurses. Participants from the Ministry of Planning included two sociologists and one rural development technician. The finalization of the strategy in Phase IV was exclusively the responsibility of the health sector staff.

Table 1. ***Steps in the Planning Methodology***

There were four phases in the planning methodology, each with several intermediary steps:

Phase I: ***Data collection***

1. Clarification of Ministry of Health programme priorities and concerns
2. Definition of specific objectives for community data collection
3. Social influence analysis
4. Choice of data collection methods and preparation of data connection instruments
5. Training of interviewers
6. Collection and analysis of village data
7. Summary of data collection findings

Phase II: ***Formulation of recommendations for the health education strategy***

8. Formulation of recommendations for health education strategy
9. Identification of target groups

10. Identification of educational activities

Phase III: ***Test of proposed health education strategy with the community***

11. Development of participative group health education session
12. Presentation of sessions to community with discussion of the strategy
13. Synthesis of community feedback

Phase IV: ***Finalization of the health education strategy***

14. Preparation of final programme document
15. Finalize plans.

Phase I: Data collection

Initial data collection for health programmes is often limited to clinical and/or epidemiological information that satisfies the concerns of health technicians and health planners. A prerequisite for the development of any health education programme is information relative to the different aspects of the problem of concern. Programme planners should have information on the community's perspective on the problem of concern and on their present approach to dealing with it. Quantitative survey data on knowledge, attitudes and practices (KAP), frequently used for this purpose, need to be supplemented with qualitative data, if in-depth insights into community beliefs and practices are to be obtained [3, 19].

Step 1: Clarification of Ministry of Health programme priorities and concerns

A first step in planning for formative research is to assure that those responsible for data collection fully understand programme priorities and concerns. In Zinder, prior to discussing what type of information to collect from the community, the planning team reviewed the Ministry of Health's guidelines for the prevention and management of diarrhoea and dehydration at home and in health centres. The Ministry guidelines reflect the clinical concerns of health professionals and are similar to those found in other countries.

Step 2: Definition of the specific objectives for community data collection

It was decided that information on the social, cultural and economic/ resource factors related to diarrhoeal disease management should be collected. A simple conceptual model was developed to help the Zinder team members visualize the three categories of data to be collected. The model was inspired by Foster's [20] work on the introduction of innovations into traditional societies, by Green's work [21] on the key assessment variables to consider in the development of health behaviour change programmes and by the literature on the health-seeking process [22]. Given the Ministry's concerns relative to diarrhoeal disease and the conceptual model or "map" of the problem, the planning team assisted in defining the specific objectives for each of the categories of data collection.

Step 3: Social influence analysis

In the social influence analysis [8] the planning team was asked to identify those persons having either knowledge or resources that influence how the child with diarrhoea is cared for. In traditional societies, mothers usually have the main responsibility for the care of children; however, other individuals in the family and community do influence what is done when a bout of diarrhoea or other child health problem presents itself. In this analysis, the team identified the following influential persons:

1. mothers of young children
2. older women, including grandmothers
3. fathers of young children
4. bokas (traditional healers)
5. marabouts (religious leaders)

It was agreed that information should be collected from all of these groups in order to have a holistic understanding of the perception and management of diarrhoea in the community setting.

Step 4: Choice of data collection methods and preparation of data collection instruments

The team discussed the characteristics, advantages and disadvantages of quantitative and qualitative data collection methods. The past experience of the team members was exclusively with quantitative data collection and they were initially skeptical about the appropriateness of qualitative data collection. They reluctantly agreed that qualitative information should be collected. Semistructured group and individual interviews were to be conducted to collect information on: knowledge and practices related to diarrhoeal disease; the roles played during diarrhoeal episodes by different individuals in the family and in the community; communication networks; and resources related to diarrhoea management. Interview guides were developed for each type of interview to be conducted based on the previously defined specific objectives.

Step 5: Training of interviewers

All members of the planning team were to participate as interviewers in the village data collection exercise. As suggested above, some of the team members had experience collecting quantitative data, but it was the first time that any of them would be involved in qualitative data collection and, therefore, training was of critical importance.

Training for qualitative data collection should address knowledge, attitudes and skills with special attention given to the attitudinal component. In qualitative research, the reliability of information collected depends to a great extent upon the interviewer's ability to establish rapport with community members, and this in turn depends to a great extent upon the attitudes he/she has towards interviewees.

The planning team members participated in a three-day training session. The first part dealt with the socio-cultural factors associated with community health-related practices, the differences between the community's and health personnel's perspective on community health problems, and

the importance of community data collection as a precursor to the development of health education programmes. Through a series of case studies and small group exercises, the team members examined their own attitudes towards rural communities. The importance of exclusively listening and not advising interviewees about what they should do to solve specific problems was given particular attention. The latter portion of the training addressed the practical aspects of data collection in the villages: the specific data collection objectives; the steps in conducting semi-structured interviews; verbal and non-verbal behaviour; the use of the data collection instruments; group facilitation skills; and note-taking.

Step 6: Collection and analysis of village data

All of the team members were involved in the data collection and simultaneous data analysis. The team spent three days in each of two villages inhabited almost exclusively by Hausa people. Upon arrival in each village, a meeting was held with the chief to inform him of the team's objectives and to ask for his assistance in identifying the individuals and groups to be interviewed, according to the criteria defined ahead of time by the team. In each village, small group interviews were conducted with mothers, grandmothers, fathers, Bokas and Marabouts. Individual interviews were carried out with mothers concerning the availability of the resources necessary for the management of diarrhoeal disease and with men and women concerning village communication networks.

Each day the team conducted the interviews, analyzed and summarized the information collected, identified information that was either unclear or incomplete, and planned how to gather the missing information during subsequent interviews. The female nurses on the team were especially adept at establishing good rapport with the mothers and grandmothers and encouraging them to express themselves freely. Female nurses also had the best understanding of the linguistic and health-related concepts of the women.

Step 7: Summarization of findings

When the team returned to the regional capital, they prepared a summary of the findings for each category of information collected. A few examples of the findings are included here.

• *Knowledge and practices related to diarrhoeal disease management and prevention at home:*

Six different types of diarrhoea were identified. For each type the interviewees identified distinctive causes, symptoms, and modes of prevention. The types of diarrhoea identified by the population do not correspond to biomedical classifications, except in the case of diarrhoea accompanied by blood, i.e. dysentery. Likewise, most of the causes and modes of prevention described by the communities interviewed are not scientifically explicable.

• *Persons who directly or indirectly influence the management of diarrhoeal disease:*

The community data collection suggests that the management of diarrhoea is influenced most by family members, family friends and relatives. Of secondary importance are traditional healers.

Health workers appear to have the least influence, and they are usually only consulted when the other two sources of advice have failed.

• *Communication networks at the village level:*

For men, many formal organizations that constitute communication links were identified at the community level. In addition, the times and places that they meet informally were identified. For women, it was found that few formal organizations exist, but numerous occasions for informal contact and communication among women were identified, including weddings, birthdays and market days.

Phase II: Formulation of recommendations for the health education strategy

Based upon the conclusions of the data collection, the team members formulated recommendations both for the diarrhoeal disease educational "content" and for the "process" to be used in communicating that content to different community groups.

Step 8: Formulation of recommendations for health education content

Identification of the educational content was based upon the simultaneous consideration of community beliefs and practices related to the prevention and treatment of diarrhoeal disease, and of the national CDD programme priorities. In addition a number of key principles related to the promotion of behaviour and social change, were discussed and they were also taken into consideration in defining the educational content. Examples of the recommendations developed are included here:

• The community's beliefs related to the types, symptoms, and causes of different diarrhoeas and to alternative modes of prevention should be accepted and emphasis should be given to promoting appropriate interventions during diarrhoea.

• Mothers should be encouraged to give large quantities of liquid to children with diarrhoea to avoid "rama" (the Hausa notion of thinness and weakness that result from diarrhoea).

• Fathers should be encouraged to assist with the care of the diarrhoeal child and to provide the necessary nutritional and financial resources.

Step 9: Identification of target groups

Based upon the findings, it was decided that health education activities should be directed not only at mothers but also at other persons who influence mothers and who can provide community support for change. Primary and secondary target groups for the strategy were identified:

Primary target groups

- mothers of young children
- cloistered mothers of young children
- older women, including grandmothers
- fathers of young children

Secondary target groups:

- traditional birth attendants
- community health workers
- religious leaders (Marabouts)
- traditional healers (Bokas)
- village chiefs
- teachers

In some of the Hausa villages in the area, all or some of the women are cloistered. They are forbidden from going out of the courtyards of their homes. The social situation of cloistered women is quite different from that of other women and the team decided that they constitute a separate target group for whom special activities must be envisaged.

Step 10: Formulation of recommendations for health education activities

The choice of educational activities was based on several considerations, including: definition of health communication; characteristics, advantages and disadvantages of mass and interpersonal communication channels; knowledge of certain aspects of the behaviour change process; and the characteristics of the target communities.

The team agreed to avoid one-way information transfer from health workers to the community, and defined communication as a two-way sharing and problem-solving process. The prevalence of informal communication networks in the target community fed into analysis of the potential uses of interpersonal and mass communications. Based upon this analysis, it was decided that the educational strategy would emphasize the use of interpersonal communications activities. These were envisioned for both the community and health centre levels.

Leaders from each of the target community groups would be trained to serve as informal educators with their respective groups. Health workers would receive training in interpersonal communication to reinforce their skills in interacting with mothers and families.

Phase III: Test of proposed health education strategy with the community

In Phase II of the planning process, the recommendations for the health content and activities were based upon initial data collection from the community, but it was believed important to discuss those proposals with community members before proceeding to implement them. Therefore, it was decided that the team should return to the same communities where the initial information had been collected, to present the proposals for the strategy developed in steps 8-10 to the different target groups, and to elicit their feedback.

Step 11: Development of participative group health education sessions

The planning group team was divided into two sub-groups and each was asked to prepare either a role play or a story that would stimulate community groups to discuss both existent practices and new options related to the prevention and management of diarrhoeal disease. The sessions were to be based first on Freire's use of a "code" that reflects back to the community a part of their own reality, and second, elicits their collective analysis of that reality 123-25] . The role play and the story that were developed incorporated elements from both the communities' beliefs and practices and from the CDD programme priorities. Both were open-ended stories, and for each a set of questions was prepared for the facilitator to use following the presentation to get the participants to discuss their own beliefs and practices relative to those depicted in the story.

The story was prepared for the women and the role play was given to the men. Both dealt with a typical bout of diarrhoea and emphasized the roles typically played by the women and men, respectively. When the team members had sufficiently practiced their presentations they were ready to present them in the villages.

Step 12: Return to two villages to discuss the strategy with the community and to test health education activities

There were two objectives for the second visit to the selected villages: first, to discuss the proposed strategy with the village leaders and to elicit their feedback on it; and second, to experiment with non-directive, participative health education techniques. Upon arrival in each of the villages, a formal meeting was held with the community leaders to discuss overall diarrhoeal disease strategy and to elicit their suggestions for working with the different target groups. Following those discussions, groups of mothers, fathers and grandmothers were invited to discuss and watch the story or role play. In each case, following the role play or story the prepared open-ended questions were used by one of the team members to engage the participants in a discussion of what they had seen and heard. In all cases, the villagers showed great interest in the stories and said that similar situations had existed in their village. As for the subsequent group discussions, most of the participants gave their opinions about the stories they had heard and shared their beliefs about the appropriate practices to use in such a situation. As the participants talked, the facilitator reinforced certain beneficial existent practices, such as continuing to give the child food and drink, and encouraged the modification of other practices, such as the need to increase the amount of liquids and food given.

The group sessions were an occasion for the team members to assess community reactions to the proposed changes in practice and also to collect additional information on community attitudes and practices. In keeping with a process-learning or iterative approach to programme planning, the team members were encouraged to think of every encounter with a community group as an occasion for ongoing data collection, to continually improve their understanding of community values and opinions, and to revise their planning accordingly.

Step 13: Synthesis of the community feedback

When the team returned from the village visits, they informally evaluated the activities carried out in the villages. In regard to the discussion with the community leaders, several of the leaders expressed their satisfaction with the approach that the team used and said that it was the first time that Ministry of Health personnel had come to the village to listen and discuss problems with them before planning a programme. The leaders had made a number of suggestions for developing a strategy in their villages and their ideas were further discussed; many were incorporated into the strategy. As for the group education sessions, the consensus was that the participative educational techniques used were beneficial in terms of the interest shown on the part of the participants and in terms of the genuine dialogue generated among them. The group discussions following the educational activities had helped the team members to evaluate community reaction to some of the new ideas and practices they hoped to promote, had allowed them to understand better some of the community beliefs and practices, and had helped them to appreciate the importance of continuously seeking to understand the communities' perspective so as to improve the quality of communication with the people.

Phase IV: Finalize health education strategy

Step 14: Prepare final programme document

The last step in the programme planning process was to finalize the health education strategy based on all of the alternatives discussed by the team in the earlier steps, as well as on the feedback on the team's initial proposals received from the community.

Step 15: Finalize plans

A detailed description of the objectives of the strategy, its components, its implementation calendar and budget were finalized.

Conclusions

Many health education programmes are not adequately adapted to community socio-cultural realities. The programme planning exercise discussed here illustrates the use of a planning methodology that is believed to contribute to the development of more appropriate programmes. The team of data collectors from the Ministries of Health and of Planning was unfamiliar with, and initially skeptical of, the qualitative method proposed. However, as data collection proceeded, they were all ultimately convinced of the value of gathering in-depth qualitative data prior to developing health education strategies. The team for the preliminary data collection and for the development of the health education programme using the data collected included both health and rural development technicians, and the health sector members were both programme managers and service providers.

The programme development process was a learning experience for all of the team members in that it: demystified the data collection process; strengthened the participants' skills in community data collection; fostered sharing and team-work between health service providers and programme managers as well as between sectors. The planning team successfully dialogued with

different community groups, re-examined their own understanding of community health problems, identified the shortcomings of past health education programme approaches, identified alternative strategies, and discussed those proposals with community members.

Four aspects of the planning process were particularly important in the Zinder programme development exercise: the initial collection of in-depth, qualitative data using informal data collection techniques; the involvement of a multi-disciplinary team in the data collection and programme planning processes; the contact between the planners and the client communities during the planning process; and the operationalization of programme planning as a problem-solving, learning process.

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COMMENT:

How far down through the system can the information gathering be pushed and how is data interpretation done at the village level?

COMMENT:

The process does need to be pushed further down through the system and there is a role for personnel at lower levels. However, work within the time framework dictated by consultancies seldom allows me to go as far down into the system as is desirable.

COMMENT:

Health staff involvement was important for several reasons. Involvement by decision makers gave them better ownership of the data. The involvement in the community setting by the service providers was important because they were women who work on a day-to-day basis in the community, and they enhance the interpretation of data by the sociologists.