FIELD NOTE

ETHNOMEDICAL RESEARCH FOR FORMATIVE PURPOSES:

AN EXAMPLE FROM NIGERIA

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INTRODUCTION

HEALTHCOM in Nigeria

The HEALTHCOM program was established in Nigeria in 1986 to provide technical assistance for strengthening both federal and state health communication capabilities. HEALTHCOM is part of the USAID-sponsored Nigeria Child Survival Program which seeks to reduce morbidity and mortality of children under five years of age. Other major participants in the program in Nigeria include the Combatting Childhood Communicable Disease (CCCD) Project, PRITECH, and UNICEF.

The national government of Nigeria, through the Federal Ministry of Health (FMOH), has given high priority in the Child Survival program to preventing dehydration through oral rehydration therapy (ORT), and to increasing participation in vaccination programs. Niger State was designated as the initial site for HEALTHCOM activities at the state level. Thus in Niger State the HEALTHCOM program has provided assistance to the State Health Education and Nutrition Unit (HENU) to improve the Unit's communication capabilities. These increased skills will be used to expand health education for the management of diarrhea and the Expanded Program on Immunization (EPI).

The Annenberg School of Communications (ASC) of the University of Pennsylvania is responsible for conducting summative evaluations of HEALTHCOM programs in some fifteen countries, including Nigeria. The main elements of summative evaluations depend on quantitative analysis of data obtained from large sample surveys through closed-ended questionnaires. Whenever possible, the ASC team conducts qualitative research about local knowledge of illnesses before developing questionnaires, so that the questions asked fit with local concepts, knowledge, and practices. This type of qualitative research also serves formative purposes in support of the communication intervention.

HEALTHCOM in Niger State

With a population of just less than 2.5 million people scattered over a large area, Niger State is one of the most sparsely populated states in Nigeria. Except for the fishermen along the Niger river, the people cultivate crops and raise cattle for their livelihood. Three main languages are spoken: Hausa, Nupe, and Gwari. Hausa is the language of the urban centers and of trade as well as the native language of many people of the north. Nupe, on the other hand, is spoken in the Local Government Areas (LGAs)

across the entire southern half of the state. Finally, Gwari is spoken mainly in the eastern part of the state.

Working in an environment that is so diverse (there are other languages in Niger State as well) presents special problems for survey research. Using closed-ended questions facilitates data entry and analysis, but the questions and answers must be clear and simple. Given the linguistic and cultural diversity in Niger State, how can we learn to formulate questions properly? Are there major differences in knowledge of illness among these different language groups? Are there significant differences in how these groups diagnose childhood illnesses?

These questions are important in planning research for both formative and summative purposes. In order to phrase the questions properly, we need to find out how people talk to each other about children getting sick and what to do about different situations. We also need to determine the range of knowledge about oral rehydration therapy and vaccinations so we know the level of detail appropriate in questions.

More specifically, we need to learn what individuals know about diarrhea and dehydration and what options they have for treatment, for the designing of the survey instrument and determining the form of messages to be developed. This means we must learn how people divide the symptoms of various illnesses associated with diarrhea into separate and distinct illnesses. When a Hausa (for example) child becomes ill with some form of diarrhea, the symptoms are reported and discussed in Hausa and the diagnosis is made in Hausa. We do not know to what degree those symptoms and diagnoses correspond to biomedical terms used in English without research on Hausa ethnomedical terminology.

Ethnomedical research has demonstrated that the way illnesses are recognized, diagnosed, and treated differ widely. This means that each group of people has its own system for diagnosing and classifying illness. In some cases, locally defined illnesses correspond to biomedically defined diseases, in other cases they do not. For instance, what we call measles is widely diagnosed as a specific illness by caretakers in Niger State, while their identification of malaria is less clear.

This field note describes how the ASC evaluation team organized ethnomedical research to address these and other questions in Niger State, Nigeria. More specifically, the research identified terms and concepts which women use to talk about cases of diarrhea in young children. This information was then used in both the formulation of questions for the baseline survey instrument and for making recommendations to the Ministry of Health about interventions for ORT and EPI.

The Purpose of Ethnomedical Research

Ethnomedical research refers to studies that focus on local knowledge about disease, illness, and medicine. That is, in deciding where to begin or how illnesses are defined, ethnomedical studies do not use the criteria of biomedical research. Rather, they use the criteria of the local system of knowledge. For example, a population speaking language x, may recognize three different kinds of diarrhea, and two illnesses which we would call dehydration. For that population, five different illnesses account for two biomedical concepts--diarrhea and dehydration.

Ethnomedical research of this kind treats all statements about illness as having equal "value." That is, in the process of research, no distinction is made between statements that are "scientifically sound" and those that are not. Many people tend to speak of "beliefs" about illness when such statements do not correspond to biomedical principles, and about "knowledge" when the statements fit the definition of phenomena developed by biomedicine. For example, among the Moors of Mauritania, some people say that dirty water can cause diarrhea. Health care personnel would say that those people know something about the cause of diarrhea, since they concur with such statements. That is knowledge. However, the same people also say that diarrhea can be caused by breastfeeding when the milk is too "hot" (a woman returning from the desert and immediately nursing her baby). Such a statement often is considered a "belief" rather than as knowledge. Most public health experts think that "beliefs" can be changed through health education.

In Niger State we wanted to understand how people--both men and women--talk about illness related to diarrhea and vaccine-preventable diseases, and what they do about these conditions. We also wanted to know about the range of knowledge regarding water/sugar/salt solution (SSS) used for oral rehydration and about vaccinations. This information could then be used in both the formulation of questions for the baseline survey instrument and for the shaping of messages by HEALTHCOM about ORT and EPI.

RESEARCH IN NIGER STATE

The Setting of the Research

Public health program managers would like to collect data about knowledge regarding illness and medicine among their target population, but in most cases time and funding are very limited. That was the situation in Niger State in July 1987. Through

earlier research in Mauritania, we found that interviewing small groups of persons in an open-ended manner in up to a dozen villages provides the sort of information required. That was the research design followed in Niger State.

Niger State is divided administratively into nine Local Government Areas (LGAs). The villages visited for the research were in the LGA of Gbako (for Nupe) and Chanchaga (for Hausa and Gwari). From ten to fourteen villages were visited for each language. In Gbako, villages were selected from each of the five districts of the LGA. In Chanchaga, the villages selected included several near main roads and near health facilities, and others far from roads and facilities.

From July to September, 1987, ethnomedical research was conducted in Niger State by a medical anthropologist from the University of Ibadan, Dr. Adewale Oke. Dr. Oke worked with us interviewing for one week, and then took over the entire process interviewing, data collection, and data analysis. In July and August, 1987, Dr. Oke spent six weeks interviewing villagers--both men and women--about their knowledge and practices related to childhood diseases. Working through an interpreter, he interviewed in Hausa, in Nupe, and in two kinds of Gwari.

Since we conducted the research in each of the three languages, we carried out three mini research exercises. We wanted to find out if there were differences in how diarrheal disorders and dehydration were diagnosed among the three groups, and how the groups differed in knowledge and use of SSS and vaccinations.

The Target Population

Mothers of young children are usually considered to be the main target population for communication programs concerned with child survival, for as the primary caretakers of young children, they make most of the decisions about the diagnosis and treatment of illness. Yet the flow of information about childhood illnesses is not limited to these mothers, for they interact every day with older women. Given the high status and experience of older women, we expect they also participate in decisions about health questions. Therefore, in selecting whom to interview in such research, we did not exclude older women or those without young children at the time.

It is not clear to what degree men in Niger State participate in choices about the diagnosis and treatment of illness or the vaccination of young children. Some people have suggested that men may play a deciding role in getting children vaccinated. In this kind of research it is important to interview men as well as women, for their knowledge

and responses to questions may be different, they may make certain decisions in child care, and it was considered courteous and good public relations to begin the process of interviewing with men.

Organizing the Interview Process

The time available for research was limited to six weeks. It was possible to interview people in ten or twelve villages by spending one day in each village. Visiting a new village every day without giving advance notice requires spending time in each village with village leaders. Generally we met first with the village chief or political head to explain the goals of the visit and request permission to talk to people from that village. Once permission was granted and all questions answered, we began interviewing with a group of men. We explained that while both men and women know a great deal about illnesses in general, we expect women to know more about childhood illnesses and thus we want to speak to more women than men. That explanation made sense to everyone.

Village leaders almost always granted permission for the interviews, and men were pleased to form a group to be interviewed.

Interviews were terminated when a group showed signs of being tired or losing interest, for once that happens, the information collected becomes less reliable. The time of each interview varied from one-half to one hour in most cases. In this manner we could interview four or five groups per village quite easily in one day.

Interviewing Groups

We found that interviewing small groups of people (three to five persons) worked well for asking questions about health and illness. Interviewing one person at a time is often not productive, for some individuals are reticent in answering questions for many reasons. Interviewing larger groups of persons, seven to ten or more, makes it difficult for everyone to have their say, and it tempts some to speak in order to be heard by others in the group. With only four or five persons in a group, each one gets the chance to talk, and there will always be one or two people with enough to say to keep the discussion going at a good pace.

In some situations it was not possible to have only a small number of individuals at one time. Sometimes men insisted on being present while women were interviewed; sometimes it seemed disruptive to force the curious to leave; sometimes there simply

was no appropriate place to meet privately.

As a general rule, interviewing one group of men per village seemed sufficient, for we assumed that mothers/caretakers would provide the most information. We found it useful sometimes to ask that certain kinds of women be brought to form a group: those with small children, or those who were elderly, or those who were breastfeeding, for example. Having different groups of this kind provided more variation and detail in answers. Also, the theme of the interviews could then be tailored to issues the group was currently dealing with or knew most about.

The Subjects of Interviews

The main questions asked in interviews concerned the following themes:

- names of common illnesses in young children
- names of childhood illnesses considered serious
- symptoms of certain selected illnesses
- treatment options for certain illnesses
- knowledge and use of SSS
- knowledge of vaccinations and EPI diseases.

Over the course of six weeks of interviewing, three types of questions were used: 1) those that elicit names of illnesses; 2) those that elicit symptoms and treatment options for those illnesses; and 3) those that ask about knowledge and use of SSS and vaccinations. These types of questions were asked in order, i.e., during the first two or three days, all groups were asked about the names of illnesses. Once the patterns was clear and the responses were repetitious, we began asking about symptoms and treatment options for illnesses related to diarrhea and the EPI diseases, illnesses of special concern to us. Early on the questions were general, later on they became more detailed. Appendix A shows the responses of some groups of Nupe and Hausa speakers to questions about diarrhea and dehdyration.

Let us assume, for example, that we were interviewing a group of four young women on the first day of the research. We asked them to give the names of common childhood illnesses. After about fifteen minutes we had a list of fifteen illnesses that often affect children. We then examined the list and chose four or five to pursue further--those illnesses of particular interest to us. We asked about the symptoms of those illnesses, the possible causes, and the options for treatment. After a week of

research there was no need to ask every group for lists of common illnesses, for we knew that list. That general question--what are the illnesses most common in young children, or children under five, or those who breastfeed--was always asked of at least one group in every village.

Organization of the Data

Data were presented in three forms in the final report: as lists of names of childhood illnesses with the glosses in English, if they were known; as tables giving the symptoms, causes, and options for treatment of a number of illnesses (See appendix A); and as summary statements about knowledge of ORT and vaccinations. Questions about symptoms, causes, and options for treatment were asked about only certain illnesses: general diarrhea, dehydration, measles, and dysentery. In this manner up to twenty-five or more descriptions of the symptoms of these illnesses were obtained.

For example, working in the Nupe language, we obtained descriptions of the symptoms of general diarrhea (foro) more than thirty times. What each group gave as symptoms, as causes, and as possible treatments was presented in several pages in columns. By reading a column vertically one could find out if the elements given for symptoms, causes, or treatments given by different groups were consistent or not. By reading horizontally one could find out what each group said about each illness. Thus the information in Appendix A can be read both horizontally and vertically.

Summary statements about what the groups said concerning their knowledge and use of SSS and vaccinations were presented. These statements were grouped by village so levels of knowledge and use could be compared by geographic area. We found, for instance, that Gwari speaking villages located near a clinic had a far higher level of knowledge about both SSS and vaccinations than did more remote villages.

SELECTED RESEARCH RESULTS

Diarrhea

Interviews in Nupe villages showed that in Nupe, diarrhea (foro) is a common illness among young children and is very easily recognized. Most groups stated that for treatment, they boil herbal mixtures in water and give the mixture to the child to drink. If the illness persists they go to the clinic. Another option for treatment is to buy tonic or pills and mix it with porridge for the child. Dysentery is recognized as a serious illness.

Nupe speakers also recognize another illness called nakannayan, (or edigbon) that is characterized by the following: sunken eyes, body getting thin, weakness, pale skin, sunken fontanelle, and loss of weight. This illness often follows foro (diarrhea). For treating this illness people sometimes use herbal mixtures but more often go to the clinic. Some groups mentioned that children may die from this illness.

This second illness, nakannayan, we would gloss as dehydration in most cases. We thus have a situation where dehydration is diagnosed as a separate illness, considered very serious, and is often caused by diarrhea. Appendix A shows the differences in symptoms associated with foro and nakannayan.

Interviews in Hausa-speaking villages presented a somewhat different picture. Zawo (diarrhea) is common, easily recognized, and treated with herbal mixtures, tonic and pills, or with other medicines at a clinic. Dysentery is diagnosed separately.

The major contrast with Nupe, however, is the lack of recognition of dehydration as an illness. No illness was given that had symptoms resembling dehydration in any way. That result seems surprising. If that is correct, then in Hausa, people do not usually recognize symptoms of dehydration as forming a specific illness. It is possible, of course, that a term exists for dehydration in Hausa but was somehow missed during the research. However, given the way questions were asked and the number of groups involved, that seems unlikely.

Knowledge of Vaccinations

Data on the levels of knowledge about vaccinations were summarized by village in the final report. We found that in the majority of villages, people stated that their children had been vaccinated by mobile teams. Less than one-half of the groups knew what the purpose of the vaccinations were. Measles was the only vaccine-preventable disease familiar to many people.

Given this range of knowledge, we chose questions for our survey instrument that focused on general points of knowledge about where and when to obtain vaccinations and the reasons for doing so. The results suggested that vaccination coverage would be low and that access to information might make a difference. Therefore, we thought that questions about general information and access would be more important in monitoring changes than detailed questions about the EPI diseases or side effects.

GENERAL IMPLICATIONS

The research described above was conducted both to assist the evaluation team in developing more sharply focused instruments and to provide data to the state Ministry of Health (MOH) on local knowledge of EPI and ORT. The information was used to formulate questions and possible answers for the baseline survey questionnaire as well as to decide on the level of detail that was appropriate in framing these questions.

The way in which the state MOH will use the data to inform its policy decisions and develop its messages about EPI and ORT will be clear by early 1989. We know that each society or language group has its own system of knowledge about illness and medicine, and that the form this system takes will be somewhat different in each language. In the case of Niger State, for example, we found that while Nupe speakers recognize diarrhea and dehydarioton as two separate and related illnesses, among Hausa speakers there was no recognition of dehydration as an illness at all. That contrast suggests that messages about preventing dehydration in Niger State should be developed in different ways for Nupe and Hausa speakers.

We are also convinced that efforts to promote ORT, for example, need to consider the form that local knowledge takes with regard to diarrhea and dehydration, so that the messages developed can build on what people already know, using concepts already familiar to everyone. This research from Niger State serves as an example of how such data about what people already know can be obtained in a few weeks with limited resources.