

## **14. Rapid anthropological procedures in the early planning for control of paediatric acute respiratory infections: Lesotho, 1989**

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**In this paper, Rapid Anthropological Procedures were used to determine local terms, categories, and treatment practices associated with acute respiratory infections (ARI). It reports the findings from one phase of a study aimed at obtaining data on ARI among children under the age of five in Lesotho. Data were collected using participant observation, observations, and informal and formal interviews with individuals and groups living in a rural area. The authors conclude home treatments, traditional and religious healers play a part along with over-the-counter medicines, health providers, and modern medicines in caring for children with ARI. This paper represents a highly professional use of RAP and may serve as input for developing similar studies and for training. - Eds.**

ACUTE RESPIRATORY INFECTIONS (ART) are a major child hood health problem in developing countries. Although coughs, simple colds, ear infections, bronchiolitis, and croup are part of the ARI complex, most deaths from ARI in young children result from pneumonia, or acute lower respiratory tract infection (ALRI).<sup>1</sup> In 1987, ALRI accounted for 24% of the deaths in hospitalized children (unpublished data, Statistical and Planning Unit, Lesotho Ministry of Health). In 1988, the Lesotho Ministry of Health decided to address the problem nationally and requested assistance from the Centers for Disease Control (CDC). The International Health Program Office (IHPO) at CDC responded by assisting with baseline studies for policy development.<sup>2</sup> The anthropological data reported here were presented, discussed, and used to outline plans for the health education and training component of the ARI Working Session held in Lesotho, December 1989. These data, combined with clinical and epidemiologic information, were used by the Lesotho Ministry of Health to develop a national ARI control policy and to initiate the first phase of the programme in three health service areas during 1990.

Lesotho, located in southern Africa, is the home of the Basotho people. They were united into a nation by the legendary figure Moshoeshoe I against Zulu war bands during the reign of Chaka. Today, the Basotho are a homogeneous ethnic group, speaking the same language, having similar, but not identical, cultural traditions.<sup>3</sup> They are a patriarchal, patrilineal, and virilocal people who live predominantly in the rural villages throughout the mountains, valleys, and flatlands of Lesotho.<sup>4</sup> In such societies, males have the authority to make final decisions in the public, and often domestic, spheres of life; ancestry is traced only through paternal relatives; and upon marriage, a woman resides in her husband's village or homestead with his kinsmen.

Urban residents may use public transportation to reach health services. If they must walk to reach a health facility, the walk is short, unlike the long walk taken by villagers living in the mountainous areas.

In each of the two peri-urban sites selected for this study, villagers had access to a church-sponsored clinic participating in the government's village health worker programme. The clinics were centrally located to a cluster of villages composing the health catchment area, and were equipped with vehicles to transport critically-ill patients to a nearby hospital. This factor, access to modern health services, can be decisive in saving the lives of infants with pneumonia, one of the most severe diseases associated with ARI.

## **Purpose**

This paper reports the findings from Phase One of a two-phased anthropological study designed to obtain community baseline data on acute respiratory infections (ARI) in Lesotho. The primary purpose of Phase One was to determine if there was a specific comprehension of ARI among village health workers and among caretakers<sup>5</sup> of children under five years of age in Lesotho. The assessment of rapid anthropological methods in the collection of social and cultural data on ARI was the secondary purpose of Phase One. The effectiveness of rapid anthropological methods<sup>6</sup> in reducing the amount of time required to collect sociocultural data in primary health care and nutrition (Scrimshaw and Hurtado 1987) and diarrhoeal diseases (Bentley, Pelto, Straus, et al. 1988; Yoder 1988) has been noted in the literature. Although the use of rapid anthropological methods in eliciting ARI data at the time of this study was innovative, it seemed appropriate to the needs of Lesotho's Ministry of Health. Finally, data from Phase One were to be used to design a culturally appropriate survey instrument for a second study - a quantitative, national survey that would validate and qualify the Phase One data. This first study was conducted February 10 - March 5, 1989.

## **Methodology and design**

Methods have recently been developed for the rapid collection of cultural data for use in policy and programme development in developing countries (Scrimshaw and Hurtado 1987; Bentley, et al. 1988; Yoder 1988). When using rapid anthropological methods, a number of techniques (individual interviews, group interviews, focus group interviews, observation, and participant observation) are used. The methods developed by Scrimshaw and Hurtado (1987) and Herman and Bentley (personal communication, 1988) demand that data be collected and analyzed concurrently. This allows for the development of important questions, a culturally appropriate survey instrument or health education approach, and the inclusion of key local terms in a translated instrument. In this study, we modified the research techniques used by Herman and Scrimshaw and Hurtado and designed a study that was successfully implemented in Lesotho.

### *Site selection and sample size*

The Ministry selected two study sites, Bethany and Matukeng. Criteria used to select the sites were accessibility and the presence of an active village health worker programme.

Originally, we envisaged interviewing a total of 20-24 caretakers of small children (about 10-12 per health catchment area) and two groups of village health workers (5-6 per village).

### ***The research instrument***

The preliminary interview guide, developed through discussions with staff from the Ministry of Health and the Centers for Disease Control, used cultural and biomedical knowledge to structure questions that would elicit a clear understanding of ARI in Lesotho. After two days of pretesting this interview guide in the field setting, the research team revised and developed a final instrument (Appendix 1) which elicited five categories of information from respondents:

1. illness terms related to general childhood illnesses (Question 1);
2. categories of severity for elicited illness terms (Question 2);
3. illness terms associated with breathing difficulty (Question 3);
4. narratives of ARI-related illnesses that explain how Basotho define, diagnose, and respond to ARI episodes in young children (Questions 4, 9, 12); and
5. suggestions for appropriate health education interventions (Questions 10-11).

All of the questions in the interview guide were designed to elicit qualitative data. The emphasis was placed on the quality of the data, and a good interview provided understanding and depth in at least one dimension of ARI beliefs and behaviours. As such, it was more important for researchers to obtain good narratives from respondents about an ARI-related event in young children than to receive a brief answer to every question in the interview guide. The ability to obtain a good narrative during an interview was the core criterion for selecting the interviewers.

### ***Staff***

A research group was assembled consisting of the authors and two interviewers. The interviewers were selected from a list of applicants who had conducted survey research, and who could read and write English and Sesotho. The final selection criteria were the capability of developing rapport, conducting an interview with rural and urban Basotho women knowledgeable of health practices, and being able to take good notes in Sesotho. We assessed the applicants' skills during a series of mock interviews in English and Sesotho.

The research group worked in two teams - interviewing respondents, making observations, tape recording the interviews, translating and coding the data, and analyzing and discussing the findings. When possible, interviewers were accompanied by a village health worker assigned to the selected village who assisted by helping us gain entrance to the communities (through meeting with the village chiefs) and obtain permission to conduct the interviews.

### ***Respondents***

From households identified as including caretakers of children under the age of five, a small purposive sample was selected to represent the differing socio-economic groups in the community. As each household with potential respondents was identified (in most cases by the village chief or health worker) observations of the household surroundings (material conditions) were the basis for deciding socio-economic status. The criteria included the type of construction of the house (e.g., mud-smearred vs. cinder-block construction, tin vs. thatched roof) and the material objects near the house (automobiles, oxcars, bicycles, etc.) were used as rough estimators of socioeconomic conditions. Demographic variables such as sex and generation were also considered. The selection of small purposive samples like this is common in ethnographic research and requires that researchers who are knowledgeable of the culture make quick decisions after asking a few direct questions<sup>7</sup>. Respondents were interviewed individually or in a group.<sup>8</sup>

Because distance from a health centre is often a determinant of health behaviour, the team interviewed respondents in villages nearby and far from the health centre. In both health catchment areas, the farthest village where respondents were interviewed was a 15-minute jeep ride, or a three- to four-hour walk from the health centre.

By including people from different social strata, we were able to elicit qualitative, community-based ARI data using a small sample, and construct a culturally valid instrument for Phase Two, the quantitative study. As a precaution, we planned that the second phase would use probability sampling techniques to correct bias introduced during Phase One. In this way, our key findings from the Phase One study could be tested quantitatively (Wilson and Kimane 1990).

### ***Data analysis***

Analyses of the interviews were conducted in several stages: during the course of data collection in the field, immediately after the completion of all of the data collection, and after the first draft of the report had been written. This process is similar to that suggested by both Herman (E. Herman and M. Bentley, personal communication, 1988) and Scrimshaw and Hurtado (1987).

During the first stage of the analysis, the tape and text from each interview were reviewed and discussed by the team members at the end of each work day. These discussions helped the co-investigators build and revise a hypothetical explanatory model for ARI from the perspective of the respondents; in anthropological terms, this is called an emic, or respondent's, perspective. The data from each interview tested the hypothetical model, and served to refine and classify the new illness term added to the model as interviews were completed each day. The daily discussions were also instrumental in bringing a consensus to the process of making approximate English translations of illness terms from the tape-recorded and written Sesotho text.

After these discussions, interviewers expanded their field notes, resulting in a more detailed version of the interview in Sesotho (or English). The discussion sessions also assisted interviewers to learn key terms and phrases that triggered respondents' narratives of ARI episodes. Thus, each day, interviewers became more confident in obtaining meaningful data regardless of the time constraints in field conditions. By listening to the tape-recorded interviews, the team learned which Sesotho phrases or terms were likely to successfully trigger a

respondent to provide good, qualitative data on ARI. Providing a detailed response to a narrative would allow the respondents to answer most of the questions on the interview guide without further prompts.

The second stage of analysis was summative. Immediately after the data collection was completed, the team met to review the interviews as a collective unit. The social scientists constructed a code book for some of the variables in the instrument, and the team reviewed each interview, and coded the interview data. Then the team hand-tallied frequencies for specific, easily coded variables, (e.g., illness terms associated with ARI; whether or not traditional healers cured children with ARI in the village). These frequency data provided an overview of the characteristics of the respondents and some general trends in the data.

In the third stage of the analysis, the English translated texts were typed into WordPerfect files, coded, and analyzed. First, the "search/find" and "move" commands in the WordPerfect software were used to identify, and group, responses to similar questions together in separate files. Second, the responses to each of the segments of the interview guide were analyzed separately; similarities and dissimilarities in responses were noted as were the conditions under which dissimilar responses were given. This process helped refine and reconstruct the explanatory model of ARI provided by the respondents.

## Findings

### *Characteristics of the respondents*

The cooperation of the clinic staff, Ministry of Health, and village health workers made it possible for us to conduct more interviews than anticipated. The team conducted interviews of 30 individuals and 9 groups in 14 villages in the Bethany and Matukeng areas. The group size ranged from three to 20 persons. Although the majority of the respondents were married mothers of children under the age of five, also included were grandmothers, fathers, and village health workers who resided in the two sites. Most of the respondents recognized different types of ARI illness terms, had children who had a past case of ARI, and knew about or had used different types of traditional medicines to treat ARI in their children.

### *Sesotho illness terms for acute respiratory infections*

The data suggest that the Basotho have a specific comprehension of ARI. To discuss ARI in Lesotho, one must refer to the domain of *sefuba*. We found three basic uses of this term: a literal meaning (the chest), a more general meaning reserved for describing any illness or ailment, and its use as a descriptor of childhood illnesses. In Lesotho, people think and talk about children suffering from *sefuba* and adults being ill (*ho kula*). When we asked respondents to name the types of *sefuba* they know about, the list included *feberu* (fever), *hloana* (sunken fontanelle), *ho melisa* (teething), *ho khohlela* (coughing), *kokoana* (a tiny insect)<sup>9</sup>, *lehlatsa* (vomiting), *letsoejana* (little breast)<sup>10</sup>, *letsollo* (diarrhoea), *mocheso* (body heat, fever)<sup>11</sup>, *mokhokhothoane* (whooping cough), *sefubanyana* (a small, minor cold), and *ho thimola* (sneezing) (Table 1). A child may have one of these illnesses, or suffer from a combination of two or more.

### *Categories of severity for ARI illness teens*

In contrast to the etic (biomedical) definition of acute respiratory infections, is the *emic* (respondent's) conceptualization of *sefuba* in Lesotho.<sup>12</sup> Within the category *sefuba*, some illnesses are considered a normal part of the children's growing up process. These illnesses include *sefubanyana*, *ho khohlela*, *mocheso*, *ho thimola*, and *ho melisa*. Respondents indicated that these illnesses come and go without the need for any serious treatment. We have labeled them ordinary ARI-illnesses or *lifuba*<sup>13</sup>. More serious *lifuba* include *feberu*, *letsoejana*, *lehlatsa*, *letsollo*, *lefuba*, 'mesalese (measles), *kokoana*, *liso* (sores), *metso-o-mosoeu* (diphtheria), *mala* (stomach ache), *lethopa* (a boil), *hloana*, and *mokhokhothoane*.

In this study, *hloana* and *letsoejana* have been assigned into the subcategory "most serious *lifuba*" for these reasons: respondents reported that both illnesses were associated with coughing and fever, and both could be life-threatening and lead to a child's death. Several respondents said that when *letsoejana* occurs at the same time with *phuana* or *hloana*, the child may be near death. Furthermore, customary beliefs about the etiology of these illnesses are associated with the realm of the supernatural, presenting a challenge to health education efforts.

### *Aetiology of ARI-related illnesses*

Respondents felt that ordinary *lifuba* require no explanations; they are associated with self-limiting illnesses in children. Other illnesses, like *mokhokhothoane* (whooping cough), may be attributed to exposure to adverse climatic conditions. Some explanations for ARI-related illnesses include *ho hatsela* (to get a chill), *ho habola moea* (to get a draft), *ho hahlameloa* (to inhale polluted air), and *mocheso o moholo* (excessive heat).

Respondents also offered biomedical explanations such as germs or lack of immunization against a disease (like measles) to explain the cause of ARI-related illnesses. A final group of etiologic explanations has supernatural undertones. Children could be ill from *mehlala* (bewitchment resulting from the child's mother walking across a tabooed place) and *kokoana* (a two-headed snake that enters the body of those who have been bewitched). Some felt that only traditional medicine could manage certain illnesses - especially *phuana*, *hloana*, and *letsoejana*.

**Table 1. Basotho Childhood Illness Terms**

#### **LESOTHO ARI COMMUNITY STUDY, PHASE I, 1989**

<b>Sesotho Term</b>	<b>English Term</b>
<b>A. Illnesses and Symptoms Related to the Normal Growing Experience</b>	
ho melisa	(teething)
khohlela	(coughing)
mamina	(mucous)
mocheso	(temperature, body heat)
safolane	(flu)

sefubayana	(minor ARI)
thimola	(sneezing)
<b>B. Serious, Life Threatening ARI Symptoms and Illnesses</b>	
feberu	(fever)
ho phofa	(delirium)
kokoana	(little insect, two-headed snake)
lefuba	(tuberculosis)
lehlato	(vomiting)
lekhopho	(rash)
lethopa	(a boil)
letsoejana	("pneumonia", pain, little breast)
letsollo	(diarrhoea)
live	(sores)
lits,be	(infected ears)
mahlo	(eyes, infected eyes)
male	(stomachache)
'mesalese	(measles)
metso-o-mosoeu	(the throat that is white, diphtheria)
mokhathala	(fatigue or tiredness)
mokhokhothoane	(whooping cough)
motsoka-pere	(itch)
patara-potisi	(small pox)
phuana	(sunken fontanel)
sefuba	(cold, illness, the chest)
<b>C. Core ARI Terminology</b>	
feberu	(fever)
kokoana	(little insect, two-headed snake)
lefuba	(tuberculosis)
letsoejana	("pneumonia", pain, little breast)
lehlato	(vomiting)
letsollo	(diarrhoea)
'measelese	(measles)
metso-o-mosoeu	(the throat that is white, diphtheria)
mokhokhothoane	(whooping cough)
phuana (hloona)	(sunken fontanel)

sefuba	(cold, illness, the chest)
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### *Health response to ARI in children*

**SOURCES FOR CARE AND TREATMENT OPTIONS** In Lesotho, the most immediate sources of care are those found in or near the home. A mother living in these two peri-urban sites has a cluster of accessible and familiar sources in the homestead or in the village to assist her should her child become ill. These sources include the child's father, grandparents and other relatives, other experienced mothers, the village health worker, the chief, and sometimes the village clinic.

The child's mother or father may gather herbs, leaves, or roots used for medicines. The child's mother or paternal grandmother may prepare a herbal medicine from boiling leaves or herbs. The herbal treatments mentioned most often for *sefuba* and *letsoejana* were *bloukomo* and *lengana*. After these herbs are boiled, the caretaker holds the sick child near the steam rising from the mixture to make the child inhale the vapors. An inhalation tent may be made by spreading a cloth over the heads of the caretaker and child to make the inhalation process more efficient. In a group interview of 19 village health workers in Bethany, all were aware of this common treatment. In fact, the group dispersed momentarily to search for the herbs growing near the entrance to the clinic. Male and female village health workers knew the herbs and their use. Other herbal medicines used to treat *lifuba* are listed in Table 2.

If a traditional doctor is nearby, or if the grandmother is knowledgeable about traditional Sesotho medicines, *ho phatsa* may be administered to the child with *letsoejana*. The procedure requires making small incisions on the child's skin (the chest for *letsoejana*) and rubbing Sesotho medicines into the small wounds. Or, the child may be taken to a religious healer who might say some prayers and give the child treatments with teas or enemas.

Caretakers in the peri-urban areas also use over-the-counter medicines to treat children with ARI. In both study sites, we visited trade stores suggested by respondents and found over-the-counter medicines such as paracetamol elixirs, aspirin, and cough mixtures. These medicines are dispensed by store owners and clerks.

**FEEDING AND DRESSING THE CHILD WITH ARI** The responses to the questions regarding feeding and clothing the child with ARI suggest that the Basotho believe that adjustments to the child's clothing and diet can assist the recovering child. Most responses suggest that illnesses related to cold weather or temperature, should be counteracted with warm clothing and warm foods. Mothers generally felt that the garments of a sick child should be kept clean and the amount of clothing should be adjusted in response to the child's symptoms:

"I dress her in lots of clothes so that she will get warm and that will cure her."

"The clothes should be clean, the child should be wrapped up properly."

"The child would be clean, dressed in clean clothes washed in Sunlight soap. The clothing should not be too heavy or too light."

One interviewer probed a respondent to demonstrate what she meant by dressing the child properly. In response to the question about dressing a child with *sefuba*, the mother said, "The child should be kept warm." The interviewer called one of the respondent's children towards them and asked, "Show me what you mean? How would you dress this child if she had *sefuba*?" The woman pointed to her daughter dressed in a thin cotton dress and answered, "If she had *sefuba* today, she would be dressed all right." The interviewer noted that the child wore no diaper, shoes, or socks; however, from our observations, we know that Basotho mothers often carry their young infants and toddlers on their backs, tucked under the traditional Basotho blanket usually worn wrapped around a woman's shoulders or waist. Thinly clad children may therefore have the additional warmth of their mother's blanket.

Respondents were more specific when responding to the question regarding foods and drinks that were appropriate for children with *sefuba* than they were to the question regarding clothing. Some of their responses suggest that the Basotho dietary habits, like those of Pakistanis (Real et al 1982), may be grounded in local humoral theories about the balance of hot and cold foods. However, our limited data on the dietary habits of children with ARI in Lesotho do not permit us to explore this topic further.

"For *letsoejane*, no particular food item would be suitable or unsuitable. But a cold, salty food will make the cough worse."

"The child should be given water. He should be given liquid food, not *papa* or *likhobe*."

"Avoid hard and salty foods. Salt aggravates the cough. Hard foods won't digest properly. The child should drink water, but it should be boiled first."

"Avoid salty foods and sour things like *likhobe*. Give the child warm water, not cold water, to warm up the chest. Cold water would make the chest cold and make the child cold."

"I also give my child food like *lesheleshele* (soft porridge) and water, especially when she is ill."

"Only cook a little food at a time so that the child eats food while it is still fresh. Salty food makes the child cough and should be avoided. *Motoho* (sour porridge) should not be given because it causes deliriousness. As for liquids, the child should be given water with a little sugar."

"I asked myself a lot of questions (about the child's illness) as the child was too small. I thought about giving our child cold food, thinking that maybe the *mokhokotoane* (whooping cough) was caused by hot food."

## **Table 2. Medicines Used by Basotho Respondents for ARI Illnesses**

### **LESOTHO ARI COMMUNITY STUDY, PHASE I, FEBRUARY 1989**

<b>Traditional Medicines with English Translations</b>
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Bloukomo	(eucalyptus tree leaves)
Ho arubela	(inhalation of herbal steam or fumes)
Ho pheha lekhala	(to boil aloe leaves)
Ho phatsa	(little incisions in the skin)
Khokhotse	(mobu) (a red coloured soil that women mix with water and apply on their faces to smooth the skin)
Lebese la tonki	(donkey's milk)
Lebese la pere	(mare's milk, horse milk)
Metsi	(water)
Motsoka pere	(name of herbal plant)
Phate ea ngaka	(treatment from the healer)
Pitsa ea ngoana	(medicine for a child)
Sepeiti	(enema)

### **Other Traditional Medicines Cited**

(We have no English translation for these terms)

Boluma	Lesooko	Qobo
Hloenya	Mofere-fere	Seshoasho
Khoara	Mohalakane	Tsikitlana
Lengana	Mosisili	

The data do not suggest that mothers withhold food or drink from their children with ARI. Instead, they change the child's diet to softer, more easily digested foods. Salty or sour foods are avoided and preference is given to soft, bland porridges. In terms of fluids, the data suggest that warm drinks are preferred for children with ARI; cold drinks (or foods) are thought to aggravate the illness.

Although familiar and accessible, the previously cited sources and treatments may be inadequate to meet the needs of the severely-ill child. For further assistance, a mother may contact the nurse at the clinic, herbalists, or traditional Sesotho healers.

### ***Sources of care away from the village***

For people living in these two study sites, transportation to the hospital for critical illness could be arranged through the clinic staff. Both clinics have vehicles to transport patients to the nearest hospital. Obtaining treatment from traditional healers and herbalists may require a two- or three-hour walk, or even a day's journey for some.

Throughout the interviews, people often spoke of the prohibitive cost of taking a child to the health centre. However, even if renowned traditional Sesotho doctors charge more than the health centre, people still seek their help. For example, one woman confided that she had to find a goat to pay for medical treatment received from the traditional doctor. But unlike the clinic staff, some traditional doctors will allow payment by installments rather than "cash on the line".

The steps individuals take to seek help vary from the most immediate to the more distant form of help. A caretaker will usually start treating her child with ARI at home using home remedies or over the counter medicines. If a second level of care is needed, the caretaker will either continue home care, using the advice of a more experienced mother or a village herbalist, or change to another more distant source of care (e.g., the clinic or the traditional healer). As trust is developed in a method or person, distance seems to become a less significant factor.

### ***Strategies for health education: Getting the message to the villages***

The respondents suggested four methods of effectively reaching villagers with public health information about ARI: *pitsos* (community meetings), letters from the Ministry of Health sent to the village health workers, information for the clinic or health centre staff to pass to the population, and the use of the media (radio, newspapers) to inform primary school children of appropriate health behaviour. *Pitsos*, or community meetings, were the most frequently cited method. Respondents said that these meetings should provide opportunities for doctors or health experts to address the chiefs and the population.

### **Other findings**

In this brief report, we think the following topics also require special mention: (1) the village health workers' role; (2) the terminology used to denote the health centre, its services and practitioners; (3) the role of Basotho men during childhood illnesses; and, (4) our assessment of rapid anthropological methods.

#### ***Village health workers***

Although we realize that the cadre of village health workers (VHWs) we met may not be representative of all village health workers, we found them eager to learn and participate in new health activities. They understand and recognize the traditional customs and lifestyle of the villagers. They live in close proximity to their constituents and will, no doubt, influence a new health activity like ARI. The village health worker system offers another layer of health care that is more immediate than what the nurses at the clinic can offer. When provided with ARI-related training, VHWs can assist mothers to make the critical decision about when they should seek care for a child with ARI.

#### ***Culturally-specific terminology***

When translated, terms used by villagers in Lesotho do not always correspond precisely to their English analogs. For example, the terminology used to denote the health centre, its services and

practitioners differs from conventional use. In this sample, we encountered some who were astonished to be asked, "Do you ever go to the (*kliniking*) clinic?" Women above childbearing age and men do not go to the "clinic". Some villagers associate the term "clinic" with specific health activities (immunization, prenatal care, well baby clinics), but not the site of health care delivery. Likewise, the Sesotho term for a medical "doctor" includes nurses and health care workers at health centres who "give medicines", wear white coats, attend sick (vs. well) people, and use "instruments". Investigators using survey instruments that ask the Basotho, "Did you go to the doctor?" should expect that respondents who answer affirmatively may have seen anyone who delivered modern medicine to them.

### ***The role of males during childhood illnesses***

In most child survival surveys, the respondents have been women. However, while we were interviewing in one village, the men wanted to be included. The male interviewer in our research team responded spontaneously and conducted a group interview with a small group of farmers. The men spoke openly about their knowledge of childhood illnesses. Most memorable is this statement by one farmer:

"My responsibility as a man in the case of children having diseases is to give money and discuss the problems with my wife. It is also my responsibility as a man to see to it that my child is sent to the hospital or to the doctor. If I know the Sesotho medicine, I see to it that I get it<sup>14</sup>."

This group of men, and others who were interviewed, saw their roles to include paying for their family's medical expenses, discussing health decisions with their wives, collecting herbs, and transporting their sick children to the health practitioner. Wilson and Kimane (1990) verified the extent of the Basotho men's involvement during the national study conducted two months later.<sup>15</sup> In patrilineal, patriarchal societies like Lesotho, male involvement in health care decision-making may have been underestimated by policy makers and planners. In considering these data, health education strategies should be developed to include males as a target audience.

### ***Assessment of Rapid Anthropological Methods***

Although we were able to provide a rapid response to programme needs, the assessment methods used in this study introduced biases that should be addressed. Sampling biases occurred in two areas of the study design: site selection and selection of respondents. Since both sites were located in periurban areas near the capital city, and we did not include respondents in the remote sections of the country, or from peri-urban areas other than the capital. Additionally, our sampling scheme was designed to include mothers who were primarily home makers and could be found either in their home or in nearby fields. Excluded were mothers who may have been commuting to work in the city, then returning during the evening after we had finished our interviews. Our use of village health workers facilitated access to respondents, but their presence may have biased care takers' responses to our questions. Since this study was to be followed by a quantitative study, we were willing to accept these biases and those associated with non-response in return for data which could be collected and analyzed rapidly in time to influence the design of the quantitative study.

The observations of any scientist are subject to error. Also, researcher inferences are subject to bias. Thus, our decision to include some data while excluding others may have biased the results. This type of decision making is the norm in ethnographic research.<sup>16</sup> In our case, the justification of our inferences is based on the assumption that the interactive process used to collect and analyze the data produced results that reflect the reality of the sample population, an emic analysis. An emic analysis that reflects the values of the study population is a better model of their health beliefs and behaviours than one constructed solely from an etic approach.<sup>17</sup> Throughout the course of the study, we sought the Sesotho terms that appropriately elicited illnesses with ARI symptoms, we tested the best approach to eliciting responses, we honed our instrument. The results of Phase Two, the follow-up quantitative study,<sup>18</sup> validated the major findings in this study. We considered these biases acceptable, given the goals and time constraints of the project.

The entire study was completed in three weeks. Five days were spent arranging logistics of the field work, selecting the interviewers, and developing the initial instrument. Twelve days were spent in the field collecting data in two health catchment areas. A draft report was written in two days by the social scientists, presented to the Ministry, and left in country. A final report was provided to the Lesotho Ministry of Health (LMOH) one month later.

From this experience, we have learned that the speed of conducting anthropological research can be enhanced by: 1) focusing the scope of the research problem; 2) cooperating with a multidisciplinary research team that can answer technical questions rapidly; 3) working with a country national social scientist with expertise in his or her own culture; 4) collaborating with governmental agencies in the host country who are participating and fully cooperative with the research activity; and 5) having the managerial support of a resident project staff member.

In traditional anthropological field work, the focus of the research has been the production of an ethnography that gives insight into many facets of social life. In this project, we focused on one specific aspect of behaviour: the caretakers' response to children with symptoms of ARI. For other sociocultural information, we relied upon previously published literature, and the researchers' previous knowledge of Basotho culture<sup>19</sup>.

The anthropologist in this project had an unusual opportunity to work with a Mosotho sociologist and two trained interviewers while collecting and analyzing the data in the field. The authors worked together to refine the interview guide and write the reports.

The speed with which research activities were completed was further enhanced by the structure of the organization in which the anthropologist works. This organization, the International Health Program Office at CDC, includes experts from several disciplines: anthropology, epidemiology, evaluation, health education, clinical medicine, and public health training. Members of this multidisciplinary team bring the strength of their own disciplines to the development of each research effort funded through the ASCI-CCCD project. The anthropologist had access to technical advice even while in the field.

The research team was spared months of field time because of the cooperation of the Ministry of Health. Since the Ministry had initiated the request for a social science study of community ARI

behaviours, it had a vested interest in providing support throughout the project. The MOH's preexisting rapport with clinic staff and village health workers facilitated our efforts to establish rapport in the field. Additionally, the Ministry arranged for government clearance of the research protocol. All of these activities could add months to traditional anthropological fieldwork.

In Lesotho, as in many places in the developing world, relationships between people are important. The normal relationships the anthropologist may have built with key informants and key officials had already been established by the CCCD Technical Officer prior to the research endeavour. Having trustworthy persons in the country who are knowledgeable about the social and political structure and adept at removing logistic barriers to operational research was key to the success and timely completion of our work. The Technical Officer served as a liaison with the governmental agencies and worked with local officials to help minimize logistic obstacles.

In summary, we conclude that rapid anthropological methods provided useful information for ARI policy and programme development in Lesotho. The speed with which data can be collected and analyzed can be enhanced if the anthropologist works with professionals indigenous to the culture of the respondents, and if local facilitation is provided.

## **Acknowledgements**

*This study is the result of the collective efforts of the following agencies and their staff: Family Health Division of the Lesotho Ministry of Health, USAID African Child Survival Initiative-Combating Childhood Communicable Diseases Project, and International Health Program Office of the Centers for Disease Control in Atlanta, Georgia. Funding was provided by the United States Agency for International Development (Africa Regional Project No. 698-0421).*

*A special note of thanks to those in Lesotho who made this study possible: Dr. Mpolai Moteetee, Head of the Family Health Division, Lesotho Ministry of Health; interviewers Miss Mampetlo Vickie Ramashamole and Mr. Khethang Patrick Hanyane; and the staff and village health workers of Bethany and Matukeng.*

*At the Centers for Disease Control, David Gittelman, Ronald Waldman, Virginia Sturwold, Steven Redd, Stanley Foster, Andrew Vernon, and Melinda Moore provided input and feedback throughout the stages of this work.*

## **Endnotes**

1. World Health Organization Programme for the Control of Acute Respiratory Infections. Acute respiratory infections in children: Case management in small hospitals in developing countries. Geneva: WHO, 1991.
2. Redd S. Moteetee M, Waldman R. Diagnosis and management of acute respiratory infections in Lesotho. 5(3): 255-260, 1990: Health Poll Plan.
3. Ashton, H. The Basuto, 2nd ed. London: Oxford University Press, 1987.

4. Ellenberger DF. History of the Basuto. New York: Negro University Press, 1969.
5. The term "caretaker" refers to any person responsible for child care. This category includes mothers, grandmothers, fathers, and others in whose care a parent leaves his child. The respondents are primary caretakers in a household with a resident child under the age of 5.
6. Also known as Rapid Ethnographic Assessment, Rapid Anthropological Techniques, and Rapid Assessment Procedures.
7. See Fetterman (1989) for further discussion on selecting small purposive samples for ethnographic research.
8. Although we prioritized obtaining individual interviews, we included some group interviews. Our goal was to interview respondents in a setting most conducive to producing rich, textual data. We relied on the experience of Mrs. Shale, the Basotho social scientist, who suggested that interviews conducted in the most natural setting for the respondents would lower the social barriers between the research team and the respondents. When the team met potential respondents who had already assembled themselves into a group (e.g., two groups of village health workers), they were interviewed in a group. Or, if respondents were engaged in a group activity (e.g., canning fruit, washing clothing, visiting, etc.), the participants were given the option to be interviewed in a group or individual format.
9. Literally, *kokoana* means a tiny insect, but the term *kokoana* is associated with the behaviour of a two-headed little snake. When there is reddened tissue or any infection (e.g., an infected anus, eye, or ear) *kokoana* is thought to be eating away at the tissue, but it is so tiny as not to be visible. To some extent this concept is synonymous to the layman's perception of a virus or bacteria, an unseen entity that causes anatomic damage.
10. It is our understanding that this term represents an ARI that could have the symptoms of pneumonia: cough, fever, difficulty breathing, or fast breathing.
11. *Mocheso* literally means heat and refers to elevated body temperature.
12. In general, an etic definition defines reality from the researcher's point of view, using paradigms that may or may not reflect reality from the perspective of the research population. Comparatively, an emic analysis attempts to describe reality from the point of view of the population or culture under study.
13. *Lifuba* is the plural of *sefuba*.
14. Translated text. The original text was in Sesotho, the language of the Basotho.
15. In the quantitative study, 68% of the child caretakers of children with an ARI reported consulting with the child's father.

16. Spradley (1980: 10) writes that "In doing field work, you will constantly be making cultural inferences from what people say, from the way they act, and from the artifacts they use."

17. See Pelto and Pelto (1978).

18. Wilson and Kimane (1992).

19. The consultant had worked for seven months in Lesotho in 1970. The Mosotho social scientist was born, raised, and presently resides in Lesotho.

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## **Appendix I: ARI interview guide**

### **LESOTHO ARI COMMUNITY STUDY, PHASE I, 1989**

*Interviewers: After introducing the project, and requesting the respondent's participation in the study, record their name, village, year of birth, number of children, years of schooling completed, sex, and any other obvious indicators of socio-economic status observed.*

*Please be certain that the following 10 questions are asked of each respondent.*

1. What kind of illnesses do children five years of age and younger have here in this village?
2. Which are the most severe?
3. What about illnesses that make breathing difficult?
4. Do children suffer from sefuba in this village? *(If the answer is no, skip to question 5).*
  - 4a. Please describe the symptoms of sefuba.
  - 4b. Are there different types of sefuba? *If respondent says yes, please ask him/her: Please name and describe the symptoms of the different types of sefuba.*
  - 4c. Has any of your children had any of these illnesses? *If yes, ask: What happened to that child? What did you try to help the child get better?*
  - 4d. Is there any other method of treating these different types of sefuba?

4e. Do you know of any traditional medicines used for these illnesses we've discussed today? What are they? When do you use them? For which type of sefuba are they used?

4f. Is there anything else you do to help children suffering from the illnesses discussed in this interview?

5. Is there a traditional healer in your village? Is there a religious healer? Do you ever seek his or her help when your child or someone you know is ill? What does the healer do to help you or your family member? Can the traditional healer treat sefuba? How?

6. Have you ever attended the clinic? (Why/why not?)

7. Have you ever taken any of your sick children there?

8. Have you ever taken a child with sefuba there? *If yes, ask what happened. (Did the child get better? What kind of treatment was given.?)*

9. Is there any reason why you would not take a child with sefuba (or any other childhood disease) to the clinic?

10. What do you think is the best way to educate people about new ways to improve their health and the health of their families? What makes this method a good one?

11. Do you have a radio? Do you listen to it? Have you heard about health education? Which messages have you heard?

12. Are there any special clothes for children who have sefuba? Any special food or drink?

*Make closing statements, thank the informant, and take leave.*