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FINAL EVALUATION REPORT

**Vitamin A Promotion Project: Survey of Knowledge, Attitudes
and
Reported Practices in Illela and Birni N'Konni Districts**

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NUTRITION COMMUNICATION PROJECT

Ministry of Public Health
Academy for Educational Development
Hellen Keller International

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Vitamin A PROMOTION PROJECT (Phase II)
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ABBREVIATIONS AND ACRONYMS

AED	Academy for Educational Development
CVA	Comité Villageois d'Animation
HKI	Helen Keller International
MPH	Ministry of Public Health
NCP	Nutrition Communication Project
SNIS	Service National d'Information Sanitaire (Ministère de Santé Publique)
TAC	Technical Advisory Committee
USAID	United States Agency for International Development
VAT	Village Animation Team

1. EXECUTIVE SUMMARY

This report presents the findings from the final evaluation of Phase II of the Niger Vitamin A Promotion Project, a project funded by USAID and administered by the Academy for Educational Development (AED) as part of the Nutrition Communication Project (NCP). The evaluation examined the activities of Phase II of a project that promoted the consumption of foods rich in Vitamin A during a 10 month campaign. Project activities starting with consumer research were initiated in September 1993 and final evaluation activities were completed in March 1995. Nearly half of the population of 250,000 people from 80 villages in Tahoua Department heard about the importance of the vitamin A-rich foods promoted and specific actions they could take to protect their health through radio broadcasts, by seeing skits performed, and in group discussions using counseling cards. The foods promoted were dark leafy greens, liver, mangoes, and squash -- selected as the most cost effective and culturally acceptable way of meeting Vitamin A needs in each season.

Phase II built on the results of Phase I, a pilot effort carried out in 16 villages in Birni N'Konni district in Tahoua Department from January 1991 through September 1992.

The evaluation was designed to look at program impact on knowledge levels about vitamin A needs of certain groups; consumption patterns of Vitamin A target foods during the previous week; effectiveness of different media in reaching the population; and the association between exposure to the project intervention and the knowledge and behavior indicators.

The evaluation, conducted in December 1994, consisted of a questionnaire-based survey of 311 men and 406 women in 20 villages in two of the four project districts: Illela and Birni N' Konni. Results were compared to the January 1994 baseline survey conducted in the same provinces and during the same period of the year. In addition, supervisors and volunteer promotors were interviewed to learn about their experience with the project and gain a perspective on operational issues.

Exposure

About 40% of women and 60% or more of men had some exposure to the NCP program through radio skits and spots, village drama and group educational sessions supported by counseling cards. The percent of men exposed is a minimum estimate, for it does not include those who attended group discussions with counseling cards, for they were not asked whether they saw the counseling cards (it was assumed this channel would reach primarily women). Forty-seven percent heard or saw a skit, while many others saw the cards.

Program Impact on Knowledge

Comparison of baseline and follow-up data showed significant increases in the percent of women who mentioned foods rich in Vitamin A as foods certain at-risk populations should eat. For children one to two years old, the percent of sampled women who mentioned such foods as necessary increased from 32% to 57%. The percent who cited *yamoutse* (a salad of boiled, fresh or dried green leaves with oil and spices) went from 0% to 27%. Regarding pregnant women, 77% of women and 59% of men mentioned the importance of their eating foods rich in Vitamin A compared with 33% and 12% at the baseline. Thus about twice as many women in the follow-up survey named foods rich in Vitamin A as foods children and pregnant mothers should eat. Changes related to children six months of age and to nursing mothers were in the same direction but smaller.

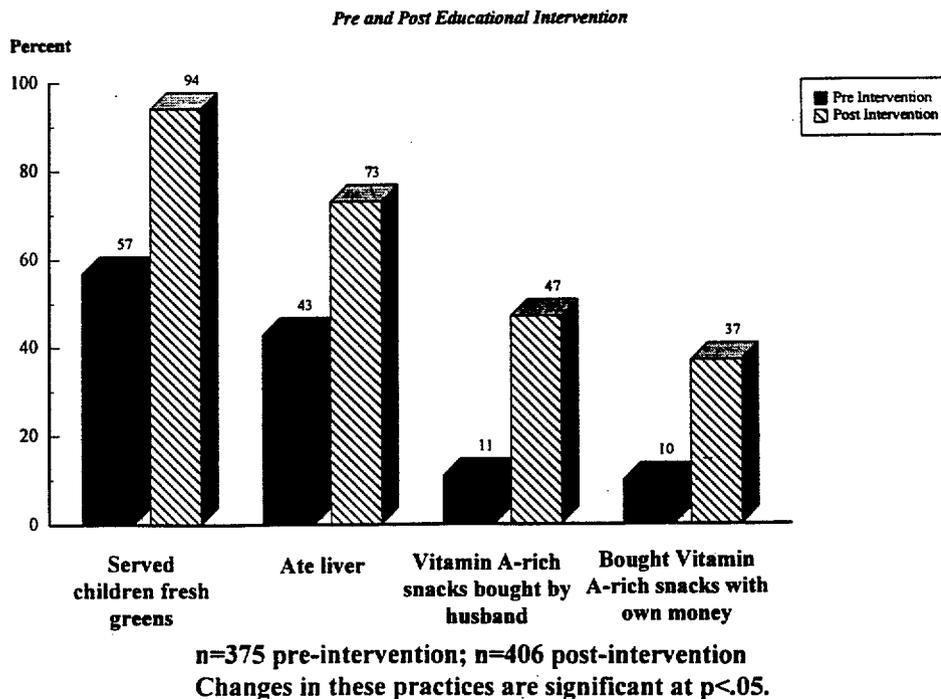
Differences were found between the baseline and follow-up surveys regarding the age at which it is considered appropriate to introduce liver and dark leafy greens to young children. There was an increase in the percent of women who reported introducing liver and fresh greens earlier. At baseline 49% and 52% gave the right age for introducing liver and fresh greens compared to 54% and 59% respectively following the intervention.

Program Impact on Consumption

Four critical indicators of reported consumption of Vitamin-A-rich foods showed significant improvement. The percent of women reporting that their husband brought home snacks rich in Vitamin A increased from 11% to 47%; the percent of women who bought such foods with their own money increased from 10% to 37%; the percent of women who reported eating liver in the last week increased from 43% to 73%. Women serving their families and children fresh greens increased from 57% to 94%. The principal differences are found in the numbers of people who reported consuming liver and *yamoutse*¹. Other greens, squash, and fruit were far less important in these changes. Major findings are summarized on the following page.

¹ *Yamoutse* (also called *kopto* and *yamace*) is a preparation made from boiled greens, oil, spices and often times crushed peanuts. It is made with either fresh or whole dried leaves depending on the season and is served cold.

Women's Reported Consumption of Vitamin A-Rich Foods During the Previous Week



The survey did not find evidence that more men were growing crops rich in Vitamin A in their dry season gardens.

Drama vs. Non-Drama Villages

Villages which had interpersonal counseling and radio did better in terms of both knowledge and practice than villages which had village drama, in addition to interpersonal counseling and radio. While the survey found that in practice interpersonal counseling and group talks tended not to be carried out in the villages with drama teams — meaning villages all had two functioning channels — the result are still unexpected since in Phase I drama proved a powerful medium reaching 68 percent of men and 32 percent of women. Interpersonal communication with counseling cards appears to have been a more powerful medium than village drama. Drama teams did not succeed in reaching all neighborhoods in their village because the drama villages tended to be larger than those receiving the other media mix.

The evaluation found evidence of an association between listening to the radio and bringing home snacks of Vitamin A foods as well as having eaten liver the past week. The evaluation also found that radio was more effective in larger villages (which tend to have better access to markets and more resources). People who saw a skit about Vitamin A were more likely to have eaten snacks rich in Vitamin A and to have eaten liver the past week. Seeing counseling cards in group

discussions about Vitamin A was not associated with increased consumption of Vitamin A-rich food.

Phase I and Phase II Villages

Major differences were also found between villages that had participated in Phase I and those new to the project (Phase II). With regard to both the knowledge and behavioral scale, the difference between persons from Phase I villages (N=8) and those in Phase II only villages (N=12) was highly significant, with those exposed for the longer period doing better. While this finding is not surprising, it does demonstrate the importance of sustained efforts to change behaviors, especially since the Phase I villages all had the less effective drama mix of interventions.

Overall Impact and Cost

The NCP Project obtained these results in a relatively short amount of time with limited funds. The total budget for the 10 month campaign carried out during Phase II was \$349,000, of this \$57,000 was for the evaluation.

2. INTRODUCTION

2.1 *Background*

This report presents the findings from the final evaluation of the Niger Vitamin A Promotion Project, funded by USAID and administered by the Academy for Educational Development (AED) as part of the Nutrition Communication Project (NCP). The NCP operated in three African countries (Burkina Faso, Mali, Niger), seeking to improve the nutritional status of young children, pregnant women, and nursing mothers by promoting the consumption of local foods rich in Vitamin A. Conducted from November 27 through December 20, 1994, the Niger evaluation examined the activities of Phase II of the project which began in September 1993 and will finish in March 1995. The project design built on what was learned in the Vitamin A Mini Project (Phase I), a project that operated in 16 villages (16,000 people) in the Birni N'Konni district of Tahoua Department from January 1991 through September 1992.

Both Phase I and Phase II of the Niger NCP were implemented through close collaboration among the USAID mission, the Ministry of Public Health (MPH), AED and Helen Keller International (HKI). Project activities were directed in Niamey by a Technical Advisory Committee (TAC) composed of specialists in nutrition, health education, agriculture and economics, along with representatives from USAID and HKI and technical advisors from AED. The Phase II project operated in a total of eighty villages in four districts of Tahoua Department: Birni N'Konni, Illela, Bouza, and Madaoua and covered a population of approximately 250,000.

Vitamin A deficiency is a serious health problem in Niger, not only because it causes night blindness, but because of its association with childhood morbidity and mortality. A national survey conducted in 1989 by the National Program to Combat Blindness in Niger found that 1% of children less than six years of age needed treatment with Vitamin A, and that if those suffering from night blindness were included, 3% of children were in need of treatment. Earlier surveys had found that up to 12% of children in some districts were suffering from night blindness.

Vitamin A is found in animal products. Beta-carotene, a Vitamin A precursor, is found in plant foods, although current research suggests animal sources, such as liver, are far more easily absorbed than plant sources. Potential sources of Vitamin A (and beta-carotene) in Niger that are often eaten include liver, eggs, milk, butter, dark leafy greens, yellow squash, red sorrel, and mangoes. Liver, a concentrated form of Vitamin A, is highly prized as a snack, and is most often bought mixed with entrails and other organ meats. Sour milk is drunk nearly every day as one of the ingredients of *fura*, a food made of sour milk, millet flour, and water. Unfortunately milk is generally skimmed. Availability of fruits and vegetables are highly seasonal.

The main target groups for the NCP in Niger were children between six months and six years of age, pregnant women, and lactating mothers. Among Hausa speakers in Tahoua Department,

there is little understanding that pregnant women, lactating mothers, or sick children might need any special foods (Keith 1990). The NCP promoted increased liver consumption; the addition of greens in dry season gardens already operating in the areas; increased frequency of consumption of sauces made from greens, and of mangoes; and introduced the idea of special foods for certain target groups.

The NCP promoted the consumption of foods rich in Vitamin A by organizing the following activities in project villages: 1) staging role plays (short skits) about eating specific foods; 2) group discussions using counseling cards; 3) broadcast of radio spots and recordings of skits about Vitamin A on the radio. In one half (40) of the villages, village promotion agents (*encadreurs*) held group discussions using 16 counseling cards, showing people how to obtain, prepare, and eat the foods promoted. In each of the other forty villages, promotion agents trained a group of five volunteers called a Village Animation Team (VAT) to prepare and present simple skits about eating these foods (in large villages more than one group was formed, although many joined together after training). These VATs also used the counseling cards in their presentations. The radio programs were broadcasted on the Tahoua FM station.

The foods promoted were ones identified during Phase I of the project as locally available, affordable, tasty, and rich in Vitamin A. These included a number of dark green leafy vegetables, liver, mangoes, and a yellow squash. These foods were depicted on the counseling cards distributed to each village promotion agent during training. The purpose of having group discussions with the cards in one-half of the villages and presenting skits in the other half was to test the relative effectiveness and cost of the two channels of communication. Both groups of villages were reached by radio.

2.2 Project Activities

Phase II of the project began field activities in January, 1994, with two weeks of training for district officials responsible for supervising village activities in their district. Five officials per district (from health, education, agriculture, planning, and social development or literacy) were trained in the principles of nutrition related to Vitamin A deficiency, in communication skills, and in directing the preparation and performance of skits. In February 1994 the village promotion agents were given one week of training in more or less the same materials. These individuals were primary schools teachers, nurses working in health centers, or agricultural extension agents. These persons then trained the village volunteers (VAT members) to use the counseling cards and develop and present skits about foods rich in Vitamin A.

In the villages with one or two VAT, the presentation of skits may have begun as early as April 1994. For villages without a VAT, group discussions using the counseling cards also began in April. In at least Illela district, it was in the larger villages that VATs were created, while in the smaller villages, promotion was done by the supervisor only.

The NCP contracted with Radio Tahoua, an FM station, to broadcast both short advertisements

(radio spots) and ten minute recordings of skits. The ads lasted from 30 to 60 seconds with messages in Hausa, Tamalshek, and Ffulde, accompanied by music. The main radio journalist, Mr. Hachim Mohammed, translated NCP messages into Hausa, while his colleague wrote words to songs which were then put to music with a local youth group for these ads. The ads began playing daily during the week before and after the local news on June 5 and ended on August 19, 1994, with the termination of the contract. Mr. Mohammed also traveled with the Niamey team to project villages and recorded skits performed for them. These have been broadcast weekly on Sunday afternoons beginning June 5, and ran until mid-March 1995.

2.3 Evaluation Purpose

The evaluation was designed to answer four main questions. One, did the project have an impact on consumption of foods rich in Vitamin A? Two, what were the experiences of the participants in the project (district officials, supervisors, village volunteers)? Three, what can be learned from this experience that can guide further activities in promoting Vitamin A consumption in Niger? Four, which media/intervention package was most effective (VAT, Non-VAT)?

The follow up evaluation, like the baseline, was planned in coordination with the Household Food Frequency Survey, carried out by HKI the following month (January 1995). See Annex A for a summary of changes in frequency of consumption of vitamin A-rich foods among children.

The impact of the project is evaluated primarily through comparisons of the baseline and follow-up survey data. The experience of participants is seen in the results of interviews conducted with involved groups and individuals. The lessons learned and recommendations stem from the overall information collected.

In addition, the evaluation text presented information about current knowledge of foods and reported food consumption from the follow-up survey that may be useful in the planning of future promotion of foods rich in Vitamin A.

2.4 Planning the Evaluation

The process of evaluation began in Niamey with finalizing the evaluation plan and the French version of the survey questionnaire for men and women, plus formulating the question guide for interviewing village promotion agents and members of the VAT. Three days were spent in this process in a group composed of the consultant, NCP's part time coordinator Brah Ferdows, and three members of the Technical Advisory Committee.² The group also arranged for the questionnaire to be translated from French into Hausa for use in the training of the interviewers. Decisions about the specific questions to retain for the men's and women's questionnaire, about how French and Hausa should be used, and the strategy for sampling and the logistics of the survey were reached through group discussion.

² The three members were Ousmane Abdou, Aissa Mamadoutaibou, and Zeinabou Mohammed.

2.5 Questions for Analysis of Survey Data

The data analysis was guided by the following major questions.

1. What is the current level of knowledge among men and women concerning the foods that the target population should eat? How has this changed from baseline?
2. What are current levels of consumption of foods rich in Vitamin A (greens, liver, squash) during the past week?
3. How do these levels of consumption compare with those of the baseline survey? That is, do we find evidence that levels of consumption of recommended foods has increased?
4. Can changes in the levels of consumption of foods rich in Vitamin A be linked to NCP activities?
5. Are vulnerable family members (children 6-12 months old, children 1-2 years old, pregnant women, nursing mothers) eating foods rich in Vitamin A?
6. What are the percentages of men and of women who were exposed to project activities, namely radio programs, skits, interpersonal counseling (with counseling cards)?
7. What differences exist in knowledge, attitudes, and practices between the villages with VATs and skits and those without intervention?
8. What is the association between exposure to different channels and changes measured in KAP?
9. Did the 16 original villages in Birni N'Konni exposed to the intervention in Phase I as well as Phase II experience greater levels of change in attitudes and behavior than other villages?

2.6 Presentation of Interview Data

The discussions with district officials involved in the NCP, with village promotion agents, and with members of village animation teams are summarized largely in their own terms. The purpose of these discussions was to elicit accounts of their experiences with the project and to allow them to suggest ways project activities might be improved. The recommendations made most often are presented in the text.

3. SURVEY METHODOLOGY

3.1 Questionnaire Development

The questionnaire for the follow-up survey asked most of the exact same questions as the baseline

survey in order to assure comparability of results. There were some minor variations in the way questions were asked, for while both worked from the same French questions, each survey team did its own translations into Hausa. The baseline survey printed the questions first in French with the Hausa underneath, while the follow-up survey had questions printed in Hausa only. Possible answers for the pre-coded answers were in French for both surveys.

The follow-up questionnaire differed from the baseline survey in two ways: 1) it did not include questions for the HKI food frequency survey with an "index child," as did the baseline (HKI did a separate food frequency survey a month later — January 1995); 2) questions about exposure to project messages were added. Questions about exposure were developed in French through discussions between the consultant and NCP personnel in Washington and Atlanta. These were reviewed and modified by the evaluation team in Niamey before being translated into Hausa.

The training of interviewers focused first on finding the appropriate ways to ask the questions in Hausa, working from a printed Hausa translation. Extensive role playing in interviewing and marking responses led to further modification of certain questions. By the end of training all interviewers and supervisors were comfortable asking the questions in Hausa.

Six days were spent in training of the interviewers in Niamey. Participating in this training were eight interviewers (four women and four men), two supervisors, and the team involved in finalizing the evaluation plan. A copy of the French and Hausa versions for both men and women is found in Annex A and B.

3.2 The Sample

The sampling frame for the survey was the villages that participated in the project. Phase II of the project covered in a total of eighty villages (20 per district) in each of four districts of Tahoua Department: Birni N'Konni, Illela, Bouza, and Madaoua. Each district had 10 villages with a village animation team (VAT) and 10 without. The evaluation team decided to conduct the follow-up survey in only two districts (Birni N'Konni and Illela) for three reasons: 1) the time and funds allocated for the evaluation were limited; 2) these two districts reflected the agro-ecological contrasts in the Northern (2) and Southern (2) districts in which the project operated; 3) the baseline survey was conducted in those two districts.

Thus the survey team interviewed men and women in project villages; covering ten villages in Birni N'Konni and ten in Illela. In order to permit comparison of villages with village animation teams (VAT) to those without such teams, the villages for the survey (five) were randomly selected from lists of villages (ten) with and without VATs. Survey data thus have results from five villages in Illela with a VAT and five without a VAT; the same was true for Birni N'Konni. **The villages surveyed are listed in Annex F, as are other project villages.**

In each village at least 20 women were interviewed. The total sample of women was 406 for both districts together, slightly more than the total of the baseline survey (375). It was decided to

interview at least 300 men to permit certain statistical analyses. In half the villages at least 20 men were interviewed, and in the other half at least ten were interviewed.³ The total male sample was 311.

The sampling units for males and females were fathers of children less than six years old and mothers of children less than six years old. Interviewers were divided into two teams: one team with two women and two men along with a supervisor, and one with two women and one man along with a supervisor. Women interviewed mothers and men interviewed fathers. Each village is divided into from two to eight neighborhoods.

The supervisors were responsible for contacts with the village chief, selecting the neighborhoods, assisting the interviewers in their choice of households, and checking each questionnaire once completed. Each interviewer was randomly assigned one neighborhood for interviewing in each village. One mother or father was interviewed per compound.

3.3 *Conducting the Survey*

The actual survey was conducted in ten days plus travel time to and from Niamey: five days in Illela and five days in Birni N'Konni districts. Two teams were formed, each with one supervisor: Ousmane Abdou of the Project's Technical Advisory Committee (TAC) served as one supervisor, and Abdoulaye Abou of the Direction d'Etudes et de Planification (DEP) served as the other. The team of Abdoulaye Abdou interviewed in all of the villages with a VAT so that he could also interview several members of the VAT in each of those villages with an interview guide (see Annex D). At the same time, the consultant interviewed the village promotional agent (*encadreur*) in these villages using the interview guide (in French) for this purpose (see Annex C).

Coding and data processing was done in Niamey by the National Statistical Service, under the direction of Mounkeila Abdou.

3.4 *Comparability of Follow-up with Baseline Survey*

The sample of the follow-up survey differed from the baseline survey in several ways. First, the baseline sampling frame was the total population of the combined districts rather than separate categories of project villages. Second, a total of 15 villages were chosen and 25 women were interviewed per village in the baseline. Third, the men interviewed in the baseline survey (N=99) were husbands of the women interviewed, while in the follow-up the men were not necessarily husbands of the women interviewed. Given the small number of men interviewed in the baseline survey, and the great difficulty experienced in locating husbands, it seemed more important to

³ Twenty men were interviewed in villages without a VAT and ten in villages with a VAT. This was done to permit one of the supervisors (the one not previously associated with the NCP) time to interview members of the VAT, and because one of the male interviewers did not perform adequately at the end of training.

interview a larger number of men and to analyze program impact on men separately rather than focus only on husbands of women interviewed.

These contrasts limit the conclusions to be drawn from a comparison of the two surveys in two ways. First, any conclusions from a comparison of the men's sample from both surveys must be very cautious, since the men were selected in different ways, and the baseline sample for men was so small (N=99). Second, the results from comparisons of the women's sample are valid for project villages rather than for the entire population of these districts. Yet, since the baseline survey interviewed a random sample of mothers of small children, and the follow-up survey interviewed a random sample of mothers of small children in one-half of the project villages, valid conclusions can be drawn about the knowledge and behavior of mothers in project villages.

4. SURVEY RESULTS: KNOWLEDGE OF FOODS FOR TARGET GROUPS

4.1 Special Foods for Targeted Populations

The Nutrition Communication Project identified pregnant women, nursing mothers, and very young children as vulnerable to Vitamin A deficiency. However, given the prominent role of husbands in determining the family diet, both mothers and fathers were asked about their knowledge of special food requirements for these target groups. The results show a significant improvement in knowledge about this issue. The baseline survey found that about two-thirds of women replied positively to a question about whether there are "special foods" needed by these target groups. This constitutes an increase of 15-18% over what would be expected from random results (50%) (somewhat more than what would be expected given the findings from the formative research).⁴ In contrast, the follow-up survey found that virtually all women responded affirmatively (97-99.5%) to these questions. A detailed analysis of the results suggest that the campaign was successful in getting people to understand that specific foods are required for pregnant and lactating women. The concept of "special" foods may have been less well understood.

It is difficult to know just how men and women understood the concept of "special" foods. The specific foods mentioned suggest that women thought first about foods they normally give to children and those they commonly eat themselves. They did not think first of foods promoted by NCP as "special." The evidence suggests that women did not fully grasp the concept of "special foods." However the questions were understood. It is significant to note that the results show major increases in women mentioning several Vitamin-A rich foods promoted by NCP. Thus even if the basic concept of "special foods" remains ambiguous, many men and women learned

⁴ After extended periods of time in Hausa villages studying nutrition and infant feeding practices, Nancy Keith reported that the notion of giving special foods to these groups was not a familiar one (Keith 1990). In her 1991 study conducted for the NCP, Keith reported that pregnant women and nursing mothers do not follow any special diet except to eat more beans to increase milk production during nursing (Keith 1991:1).

about giving specific foods (liver, greens, etc..) rich in Vitamin A to children and eating them themselves. These findings are similar to those of other health promotion projects, which have succeeded in improving knowledge about specific, concrete actions (and corresponding behavior) but find it more difficult to introduce complex new concepts and ways of thinking about a problem.

Table 1 shows the percent of women who mentioned different foods that should be given to children from six months of age on. The denominator is the total sample of women. Ninety-seven percent of women said there were special foods for children of this age; 45% of the total sample cited a food rich in Vitamin A. The baseline survey did not ask this question of men or women. Men were not asked this question in the follow-up survey.

In this and other tables to follow, the term "thin porridge" refers to *bouillie* (*fura* in Hausa), a thin porridge made of millet flour, sour milk, and water, a staple food consumed every day by both children and adults. Thick porridge refers to *pâte* (*tuwo* in Hausa), a thickened cooked mixture of millet flour in water that serves as the staple for the evening meal and is eaten with a sauce, either greens or meat. The word *yamoutse* is a Hausa word referring to a sauce made of green or dried leaves with oil and spices, and corresponds to what was called *kopto* in earlier project documents. The baseline survey reported that *kopto* is a Zarma word that may not have been well understood in Tahoua department. The word *yamoutse* was the Hausa term chosen by the interviewers and was widely understood in the survey. Dark leafy greens is a category that includes green leaves that are cultivated, gathered in the bush, weeded from millet fields or dry season commercial gardens, or purchased (see Keith 1991). Squash refers to a local yellow squash that resembles a pumpkin. It is assumed that millet, when given as an answer to a question about food, refers to millet flour eaten as a thick or thin porridge. Fruit is a category that includes mangoes, oranges, bananas, and guavas. Sources of Vitamin A are written in capital letters in the tables.

The most important element to notice from this table is that more than one-fourth of mothers mentioned liver as a food these children should eat.

TABLE 1 FOODS CHILDREN SHOULD EAT FROM SIX MONTHS ON: WOMEN'S RESPONSES		
Food	Number	Percent
Thin Porridge	291	71.7%
LIVER	115	28.3%
Thick porridge	112	27.6%
Beans	96	23.6%
FRUIT	80	19.7%
Meat	50	12.3%
Eggs	42	10.3%
DARK LEAFY GREENS	35	8.6%
YAMOUTSE	35	8.6%
SQUASH	31	7.6%
	N=406	

Table 2 shows the foods that women and men cited as foods children one to two years of age should eat, reported as a percent of the total sample. While 99% of women said there were such special foods, 88% of men replied in the affirmative. This compares to 70% for women and 66% for men in the baseline survey.

It is striking how closely the responses of men and women match. Only millet shows a very large contrast in percent mentioned. At least one-fourth of both men and women cited liver as a food to give to children of this age. Equally important is the proportion of women (27%) who mentioned *yamoutse*, a dish of greens promoted by the NCP. A total of 57% of women mentioned foods promoted by the NCP as sources of Vitamin A. In the baseline survey, 32% of women mentioned a food rich in Vitamin A: 20% mentioned liver, 12% mentioned vegetables, and no one mentioned *yamoutse*.

The differences between Table 1 and Table 2 suggest that mothers think children more than one year old should be given thick porridge, and that a greater percentage think they are now ready for eating *yamoutse* and liver as well.

TABLE 2 FOODS CHILDREN ONE TO TWO YEARS OLD SHOULD EAT: RESPONSES OF WOMEN AND MEN		
Food	Women	Men
Thick Porridge	66.0%	43.7%
Thin Porridge	60.6%	47.9%
Millet	42.1%	16.1%
Beans	36.7%	18.0%
LIVER	31.0%	25.4%
Meat	30.5%	22.8%
YAMOUTSE	26.8%	16.1%
FRUIT	17.5%	10.0%
Milk	13.8%	11.9%
DARK LEAFY GREENS	11.8%	10.9%
Eggs	0.6%	3.5%
	N=406	N=311

Table 3 shows the special foods that women and men cited as those nursing mothers should eat reported as the percentage of the total sample. While 99% of women said there were such special foods, 90% of men replied in the affirmative. This compares to 65% for women and 56% for men in the baseline.

TABLE 3: FOODS NURSING MOTHERS SHOULD EAT		
Food	Women	Men
Thick Porridge	75.1%	50.5%
Millet	51.2%	30.2%
Beans	48.3%	31.8%
Meat	42.9%	23.8%
YAMOUTSE	39.7%	20.6%
Thin Porridge	27.3%	25.7%
DARK LEAFY GREENS	22.7%	18.3%
Milk	9.1%	1.3%
LIVER	7.1%	8.4%
	N=406	N=311

While liver is mentioned by very few women or men, 40% of women cited *yamoutse* as a recommended food. The list of foods were mentioned in roughly the same order by percentage by both women and men, though the proportions of men were substantially less for the first five items.

Women in the baseline survey mentioned "vegetables" (9%), various greens (7%), and liver (1%) as special foods for nursing mothers. *Yamoutse (kopto)* was not mentioned. The major change in knowledge related to nursing mothers is in the awareness of eating *yamoutse* and in eating greens and liver -- the two specific foods most heavily promoted by the project.

Table 4 shows the equivalent data related to pregnant women. Just as for nursing women, 66% of women and 55% of men in the baseline survey said there were special foods pregnant women should eat.

TABLE 4: FOODS PREGNANT WOMEN SHOULD EAT		
Food	Women	Men
Thick Porridge	67.7%	51.1%
YAMOUTSE	54.2%	26.7%
Meat	51.2%	34.7%
Millet	37.4%	18.6%
DARK LEAFY GREENS	34.7%	35.4%
Beans	30.8%	22.5%
Thin Porridge	22.2%	9.3%
LIVER	21.9%	19.9%
FRUIT	11.3%	5.8%
	N=406	N=311

The main difference between Table 3 and Table 4 is the much higher rates of mentioning foods rich in Vitamin A in Table 4. This suggests that both men and women are more conscious of the need for a special diet for pregnant women than for nursing mothers (also found in the baseline). A total of 77% of women and 59% of men cited one or more sources of Vitamin A compared to 33% and 12% in the baseline.

4.2 Age of Introducing Liver and Greens to Children

Although the survey questions discussed in the rest of this section relate to practices, the wording of these questions is likely to have evoked general or normative responses -- what generally occurs rather than what did occur in a specific instance. The answers are therefore considered here to reflect knowledge rather than practice.

The NCP encouraged women to begin giving liver and greens to children at six months of age. Table 5 shows that almost everyone claims to give liver to young children, that 25% inappropriately think they should give liver before six months of age, and that 45% think they should give liver at six or seven months of age. Men clearly have a far less precise notion of when to begin giving liver than do women.

TABLE 5: AGE AT WHICH CHILDREN ARE GIVEN LIVER		
AGE	Women	Men
Two-three months	4.9%	0.0%
Four months	10.1%	.6%
Five months	10.3%	1.0%
Six months	20.4%	5.1%
Seven months	25.9%	9.0%
Eight-eleven months	5.6%	6.7%
Twelve mo. or more	4.5%	8.0%
Time of teething	7.9%	51.1%
Don't know	8.7%	15.7%
We don't give liver	1.5%	2.3%
	100%	100%

Table 6 shows the same kind of information about knowledge of when to introduce greens (*yamoutse*) prepared with oil into the diet. Men were not asked this question in the baseline or the follow-up survey since the technical committee didn't think that fathers have a good idea of what their children eat. Mothers believe that greens should be introduced to a child's diet somewhat later than liver.

TABLE 6: AGE AT WHICH CHILDREN ARE GIVEN YAMOUTSE: WOMEN'S RESPONSES	
AGE	Percent
Two-three months	1.7%
Four months	3.9%
Five months	5.9%
Six months	15.8%
Seven months	26.4%
Eight-eleven months	16.8%
Twelve mo. or more	13.2%
Time of teething	7.9%
Don't know	2.0%
We don't give greens	6.4%
	100%

The information from Table 5 and Table 6 are regrouped in Table 7 in the way the baseline survey reported the data to permit comparison. Responses shown are those from women only. The correct answer -- 6 months -- is in bold text. The two surveys are remarkably similar. In the follow-up survey, more women stated that they introduce liver early, that is, before 6 months of age. While this fits with NCP promotion of earlier introduction of liver, the project did not encourage mothers to give liver before 6 months of age. There was also a shift to earlier introduction of greens. In this case, the shift was appropriate, with a greater proportion of women introducing green during th 6-12 month period, and fewer women introducing greens later.

**TABLE 7: AGE OF INTRODUCING LIVER AND GREENS:
WOMEN'S RESPONSES IN BASELINE AND FOLLOW-UP SURVEYS**

	LIVER		SAUCE OF GREENS	
	Baseline	Follow-up	Baseline	Follow-up
1-5 months	12.8%	25.3%	11.7%	11.5%
6-12 mo.	49.3%	51.9%	51.5%	59.0%
1-2 years	30.1%	12.4%	30.9%	19.5%
2-3 years	3.7%	0.0%	4.0%	1.6%
Don't know	4.0%	8.7%	1.9%	2.0%
Don't give	NA	1.5%	NA	6.4%
	100%	100%	100%	100%
	n=375	n=406	n=375	n=406

4.3 Family Members Who Usually Eat Liver

Table 8 summarizes responses of men and women to a question about who eats liver in the family from the two surveys. Individuals gave more than one answer, so the percentages may exceed 100%. There was an increase for both men and women in the proportion who mentioned children, and a decrease in the percentage who said no one ate liver. This is in keeping with project messages encouraging parents to give liver to children starting at 6 months.

**TABLE 8: FAMILY MEMBERS WHO USUALLY EAT LIVER:
BASELINE AND FOLLOW-UP SURVEYS**

	WOMEN		MEN	
	Baseline	Follow-up	Baseline	Follow-up
Children	36.8%	48.5%	41.4%	59.5%
Whole family	45.6%	39.4%	37.4%	32.2%
Myself	.5%	18.2%	1.0%	9.0%
Spouse	NA	2.0%	NA	9.3%
No one	16.0%	6.7%	21.2%	5.5%
	N=375	N=406	N=99	N=311

5. SURVEY RESULTS: FOODS CONSUMED

This section compares the baseline and follow-up surveys with regard to reported behavior: consumption of foods rich in Vitamin A promoted by the NCP. Possible indicators of action from the questionnaire are the following: the crops grown in dry season gardens by men; the snacks brought home by the husband for the family; the foods the wife bought with her husband's money; the foods the wife bought with her own money; how many days the wife ate liver in the past week; how many times the family ate greens the past week. Except for the foods the wife bought with her husband's money, which are mostly ingredients for a sauce (salt, oil, onions, Maggi cubes, hot pepper, etc.), these are the indicators considered in the analyses.

5.1 *Crops of Dry Season Gardens*

The NCP encouraged men to plant crops rich in Vitamin A among those typically planted in their dry season gardens to increase availability of seasonal sources of Vitamin A. These crops included squash, beans (for leaves), moringa, pigweed, and red sorrel. Not all project villages have access to sufficient water for such gardens. The follow-up survey interviewed in 13 villages with dry season gardens and seven villages without gardens. A total of 209 men living in the 13 villages with dry season gardens were interviewed, and 102 men in seven villages without such gardens. Ninety-two percent of men who had gardens this year lived in project villages listed as having gardens. If one considers only the men living in villages with gardens, 63% of them had such gardens themselves. The baseline survey included villages both with and without gardens as one of the objectives was to see if villages in communities without gardens would be able to purchase Vitamin A - rich produce at the market.

Table 9 compares the crops men reported to be growing in their gardens. It should be noted that the small number of men interviewed in the baseline survey limits the conclusions that can be drawn from comparisons. Thirty-one percent of men in the baseline reported having gardens, while a total of 46% of all men had such a garden in the follow-up survey. The term "*dan wari*" refers to a variety of beans introduced during the drought years of 1984 and 1985. While the leaves can be eaten as another source of greens, they are more often given to animals. The percentages reported are based on the number of men who had gardens.

Virtually all the crops grown in dry season gardens are for commercial purposes. In addition, several men also reported growing either moringa, red sorrel, or pigweed in the follow-up survey (3 men mentioned these in the baseline). A total of 23 men, or 16% of those with gardens, reported they were growing either squash or one of these greens. The evaluation found no increase in the cultivation of Vitamin A-rich foods in dry season gardens.

Crops	Baseline	Follow-up
Onions	25%	42.3%
<i>Dan wari</i>	0%	32.9%
Lettuce	19%	32.4%
Cabbage	6%	31.7%
Beans	29%	26.1%
Tomatoes	12%	25.4%
Hot peppers	6%	20.4%
Sweet potatoes ⁵	16%	17.6%
SQUASH	12%	13.4%
Manioc	22%	12.7%
	N=31	N=142

⁵ The variety commonly available in the region is a poor source of Vitamin A (white color).

5.2 *Bringing Home Snacks for the Family*

Studies conducted for the NCP showed that husbands often bring home snacks for the family, and that such snacks (*friandises*) are potentially a good source of Vitamin A. Women reported on what snacks were brought home by their husbands, and men reported on what snacks they themselves brought home. In the baseline survey, 49% of women and 78% of men reported they brought home snacks during the past week. Those percentages were 92% for women and 91% for men in the follow-up survey, clearly indicating that project messages on this point were well disseminated and understood.

Table 10 summarizes the evidence about the kinds of foods brought home as snacks by men for both surveys. The table shows major increases in a number of foods brought home, especially as reported by women. More importantly there are major increases in both liver and yamoutse reported by both men and women. The baseline reports states that 11% of women and 12% of men reported that men brought home a food that was a source of Vitamin A. The follow-up survey showed that 47% of women reported that their husband brought home a food rich in Vitamin A, and 31% of men reported that they did so, which is a three-fold increase over the baseline results.

TABLE 10: SNACKS BROUGHT HOME BY HUSBAND REPORTED BY MEN AND WOMEN FOR BASELINE AND FOLLOW-UP SURVEYS				
	WOMEN		MEN	
	Baseline	Follow-up	Baseline	Follow-up
Meat	27.2%	82.0%	47.5%	70.4%
Bean cakes	7.7%	29.6%	21.2%	12.9%
LIVER	5.6%	26.4%	6.1%	15.0%
Sweet potato ⁶	11.7%	24.9%	16.2%	32.9%
FRUIT	7%	21.9%	5.5%	23.9%
Manioc	5.6%	17.2%	13.1%	26.1%
YAMOUTSE	0.3%	15.2%	0.0%	12.1%
Sugar cane	11.5%	14.8%	13.1%	35.7%
Rice	0.5%	10.3%	1.0%	0.0%
Dates	4.3%	3.2%	4.0%	12.2%
	N=375	N=406	N=99	N=311

Husbands regularly give money to their wives to buy food for the family, money most often used to buy ingredients for the sauce that accompanies the staple for the evening meal. But most women also have their own money which is sometimes used to buy food for the family. If the NCP is successful in promoting certain foods, one should be able to see an increase in foods rich in Vitamin A purchased by women. Table 11 shows what foods were bought by women with their own money. *Soumbala* is a black gummy or dried ball sold at the market and made most often by boiling the stamens and pistils from the red sorrel plant. Most of the *soumbala* now available in Niger is imported from Burkina Faso.

While the proportion of women who bought meat and bean cakes doubled, the increases in all three foods that are sources of Vitamin A increased even more. More than one-third of the women had bought *yamoutse*, liver, or greens during the past week in the follow-up survey, while only 3% had done so in the baseline survey. This shows major improvement during the 10

⁶ Variety commonly available is a poor source of Vitamin A (white colored flesh).

months of the intervention, since changes in the consumption of both liver and *yamoutse* between the baseline and follow-up survey were significant at $p < .001$.

TABLE 11: FOOD BOUGHT BY WOMEN WITH THEIR OWN MONEY		
Food	Baseline	Follow-up
Bean cakes	13.9%	29.8%
Meat	14.7%	27.3%
YAMOUTSE	0.0%	21.4%
LIVER	0.8%	12.3%
Soumbala	10.9%	11.3%
Oil	6.7%	10.6%
Kola nuts	1.6%	10.6%
Tomatoes	7.7%	10.3%
GREENS	2.7%	9.1%
Millet cakes	10.7%	8.1%

5.3 *Eating Liver and Green Leafy Vegetables*

Women were asked directly how many days they ate liver last week, and men were asked how many days their wife(ves) ate liver last week. Table 12 summarizes their responses.

TABLE 12: NUMBER OF DAYS WIFE ATE LIVER LAST WEEK		
Number of Days	Women	Men
None	25.9%	42.6%
One to two	30.8%	25.1%
Three to four	29.3%	19.4%
Five to seven	12.6%	6.1%
Don't know	1.5%	2.7%
	N=406	N=311

The baseline survey report states that 43% of women reported having eaten liver the last week, and that the average number of days was 1.0. (Men were not asked about this). In the follow-up survey, 74% of women reported having eaten liver in the past week, a large increase over the baseline.

Table 13 summarizes the responses of men and women asked how many days last week their children (women were asked about their family since women and children eat together and may eat different foods from those served adult males) had eaten fresh dark green leaves.

TABLE 13: NUMBER OF DAYS CHILDREN ATE DARK LEAFY GREENS LAST WEEK		
Number of Days	Women	Men
None	6.4%	14.5%
One to two	26.1%	26.7%
Three to four	38.6%	27.3%
Five to seven	27.4%	28.2%
Don't know	1.5%	3.2%
	N=406	N=311

The baseline report indicates that 57% of children had eaten dark green leaves the week before compared to 94% at follow-up. No information was collected about the number of days. This is

a very significant increase with close congruence between consumption patterns reported by women and men: 94% for women, 85% for men. Information collected in the prompted HKI Food Frequency baseline survey (done in conjunction with the AED survey) found additional children had eaten dried leaves -- presumably in very small quantities (90% of children had eaten some kind of either dried or fresh dark leafy greens in the previous weeks. This would suggest about 33% was in dried form.

A comparison of where the greens were obtained adds to our understanding of what might have changed during the project. The percentage of women who bought greens increased from 46% to 66%, and the percentage who gathered greens increased from 7% to 38%. The large increase in the proportion of women who gathered greens may be partly a result of formatting of the questionnaire. In the follow-up survey, 'gathered' was a possible answer printed on the page - making it easier to mark - while that option was not present in the baseline survey. The percentage of women who obtained greens from a garden doubled from 3% to 6%. Table 14 presents this information.

It is unclear what was understood by 'gathered' in this context, since the survey was conducted in December during the dry season when relatively few wild greens would be available in the bush. Perhaps some individuals included getting wild leaves from dry season gardens. Onions and other commercial garden crops are planted in November, "weeds" would be up by December, especially given the fact that 1994 was one of the best rainy seasons in a decade. Weeding greens from gardens is a common practice. In four of the villages surveyed, three-fourths of the men reported they had gathered greens; perhaps they had a source near a river bed, or gathered the wild leaves from their commercial crop gardens.

TABLE 14: SOURCE OF DARK GREEN LEAVES EATEN: BASELINE AND FOLLOW-UP SURVEYS				
SOURCE	WOMEN		MEN	
	Baseline	Follow-up	Baseline	Follow-up
None	43.2%	6.4%	42.4%	14.5%
Bought	46.4%	66.0%	27.3%	55.0%
Gathered	6.7%	37.7%	1.0%	47.7%
Garden	2.7%	6.4%	1.0%	10.9%
Don't know	0.0%	NA	26.3%	NA
	N=375	N=406	N=99	N=311

6. SURVEY RESULTS: EXPOSURE TO PROJECT MESSAGES

This section discusses the following questions:

- 1) what percent of men and women heard NCP programs on the radio, saw the counseling cards, or saw a skit presented?
- 2) how did exposure to NCP messages vary by gender, by district, and by type of village (with and without a VAT)?
- 3) what factors may have affected the chances for exposure to messages?
- 4) are there relationships between exposure to NCP messages and knowledge and behavior related to Vitamin A?

Overall, 44% of women had some exposure to NCP messages via one or more channels. Generally women tended to have seen or heard only one channel, whereas men were exposed to multiple channels. Forty percent of men were exposed to either radio or the skits, with an estimated one-third also exposed to the cards, bringing their exposure level to at least 60%.

TABLE 15: EXPOSURE TO MEDIA BY GENDER FOR VILLAGES WITH AND WITHOUT VATs				
SOURCE	WOMEN		MEN	
	VAT	Non-VAT	VAT	Non-VAT
Radio	27%	16%	41%	37%
Skits	27%	5%	39%	15%
Cards	(33%) ⁷	20%	40% ⁸	30% ⁸
Exposed to 1 or more media	54%	34%	58%	42%
	N=202	N=204	N=108	N=203

⁷ In VAT villages cards were used mostly as props in the context of the skits.

⁸ Estimated

6.1 Radio Listening

The FM station in Tahoua broadcast brief radio spots (30-60 seconds) from early June until mid August 1994, and weekly ten minute skits from early June 1994 until mid March 1995 (several months beyond the December evaluation). These skits were live recording of drama presentations of village animation teams about one of the NCP themes.

Table 16 summarizes information about access to radio and listening to health programs for men and women.

TABLE 16: PERCENT WHO LISTENED TO RADIO PROGRAMS		
Questions	Women	Men
Working radio in home	47.0%	42.1%
Listened last week	31.5%	47.3%
Heard a health program (ever)	24.1%	43.7%
Heard radio spots (ever)	19.5%	NA
Heard skits on radio (ever)	21.2%	37.9%
	N=406	N=311

In the baseline survey, 41% of women reported having a functioning radio in their home, about the same figure as the follow-up survey. The table demonstrates that while men and women report the same percent of radios in their homes (42% and 47% are not significantly different), men clearly listen to programs more than do women. The percent of men who heard a health program or heard a skit broadcast was nearly double that of women. Men were not asked about radio spots. Analyses of listening patterns by district showed no difference in the proportion of men and of women who listened in Birni N'Konni and Illela districts. These data show that radio broadcasts achieved good coverage of those who listened recently: two-thirds of women and 80% of men who listened last week had heard the skits.

Table 17 provides more detail about the frequency of listening to the radio. The table displays the same contrast by gender as Table 16, with twice as many men listening every day as women. No difference was found in analyses by district of the number of days per week that people listened.

TABLE 17: NUMBER OF DAYS LISTENED TO RADIO LAST WEEK		
	Women	Men
Every Day	13.1%	26.4%
4 - 6 Days	4.4%	5.5%
1 - 3 Days	11.1%	9.0%
Don't Know	2.0%	5.8%
	N=406	N=311

It is highly likely that most of the health programs heard on the radio by 24% of women and 44% of men were those of the NCP. It is true that more than half of the women reported hearing health programs on Radio Niamey or Radio Nigeria. However, 20% of women reported hearing the radio spots which were all about health. Since the spots had been broadcast some four months before the evaluation (while the radio skits were still on the air at the time the evaluation survey was conducted), the actual rate may well be somewhat higher.

The topics to the skits mentioned are reported in Table 18 for those who reported having heard a skit on the radio. Each person could give more than one answer to the question. Men provided slightly more answers to the question about topics than did women, but the overall pattern of response is the same.

TABLE 18: REPORTED TOPICS OF SKITS ON RADIO		
Topics	Numbers	
	Women	Men
Health in General	53	59
Eating Greens	24	28
Eating Liver	14	23
Night Blindness	14	18
Vitamin A	7	18
Gardening	1	6
	N=86	N=118

Although no difference was found in radio listening by district (Illela versus Birni N'Konni), there was a significant difference for both men and women in villages with a VAT compared to those without a VAT. Radio ownership was considerably higher in VAT villages. Nevertheless, radio reached nearly all men who owned a radio and half of all women with radios — regardless of village "type." Table 19 reveals this contrast clearly.

TABLE 19: RADIO LISTENING BY VILLAGE WITH/WITHOUT A VAT				
	Women		Men	
	A VAT	No VAT	A VAT	No VAT
Functioning radio	56%	38%	48%	39%
Listened last week	40%	23%	62%	39%
Heard a radio skit	27%	16%	41%	37%
	N=202	N=204	N=108	N=203

This difference must be related to the selection of villages for placing VATs. Village Animation Teams were placed in the larger villages that had more facilities (dispensaries, schools, gardens, access to markets). People of these villages can be assumed to have better access to both wealth and services. Many more possessed a functioning radio.

Table 20 summarizes the information from men and women about hearing the skits on radio, seeing the counseling cards, and seeing a skit in the village.

TABLE 20: PERCENT EXPOSED TO NCP ACTIVITIES		
	Women	Men
Heard skits on radio	21.2%	37.9%
Saw counseling cards	26.4%	NA
	N=406	N=311
Saw a skit: only villages with a VAT	26.7%	38.9%
	N=202	N=108

The fact that nearly equal numbers reported having listened to spots and to skits suggests that during the time that both were being broadcast (spots and skits), more people heard the spots than listened to the skits, since broadcasting of the radio spots ended on August 19 and the skits were still being broadcast on Sundays at the time of the evaluation.

We get a clearer picture of listening patterns from data about listening to skits in the past month (still being broadcast weekly). For women, 8% who heard a skit at all listened only once, 70% listened two or three times, and 16% listened four times. For men, 8% of those who heard a skit listened only once, 40% listened two or three times, and 26% listened four times (every week). Apparently those who heard them once were very likely to listen again. Thus about 20% of the total sample of women and 34% of the sample of men reported hearing the skits more than once in the past month.

One might have expected to find a relation between having heard the skits on the radio and having seen them performed in villages with a VAT. However, for both men and women in VAT villages, those who had heard skits on the radio did not see the skits performed. Radio and skits reached different audiences in these VAT villages.

6.2 *Seeing the Skits and Counseling Cards*

The sample of women was equally divided between villages listed as having a village animation team (VAT) and those without one: N=202 and N=204. The sample of men was not so equally divided (108 and 203). I say "listed as having a VAT" because at least one village in Illela, and there may be others, had formed village committees on their own to promote foods rich in

Vitamin A. We assume that nearly all those who reported seeing a skit, or role play sponsored by the NCP lived in a village with a VAT.

People were asked if there was a group in their village that did theater skits, if the group actually presented such skits, if they had ever seen one, and if so, how many times. Table 21 presents those responses from men and women classified by type of village.

TABLE 21: SEEING A SKIT AND PRESENCE OF A VAT IN VILLAGES				
	Women		Men	
	VAT	No VAT	VAT	No VAT
Theater group there?	72%	12%	77%	17%
Group presents skits	67%	11%	60%	16%
Seen a skit	27%	5%	39%	15%
How many times	1-2	33	1-2	7
	3	16	3	1
	4+	4	4+	3
	N=202		N=204	
			N=108	
			N=203	

While three-fourths of both men and women in villages with a VAT knew there was a theater group in their village, and about two-thirds further specified that the theater group in their village presented material about health and nutrition, 10% said they did not know. For women from villages with a VAT, one fourth (N=54) of the sample saw a skit once or more, while 10% (20) saw the program more than once or twice. A few women from the non-VAT villages also reported seeing a skit.⁹

A larger proportion of men (39%) saw a skit than of women (27%) though the difference is not large. This is most likely because the participation of women in public events is restricted.

Men and women in both groups of villages had the opportunity to see the counseling cards. In villages with a VAT, the cards were used as props in the skits but also as teaching material in the discussions following the skits, while in those without a VAT, the cards were used as teaching materials in group discussions. The follow-up survey showed women four different counseling

⁹ One may wonder why 11% of women and 16% of men living in villages classified as not having a VAT sponsored by the NCP would report having a VAT. Project monitoring visits found that several of the animators trained for non-VAT villages formed a VAT on their own. These persons all come from four villages: Tchissana, Louhoudou, Tsernaoua, and Doguéroua.

of skits are not considered to have been exposed to the cards — only to the skits.

The questionnaire provides indicators of both knowledge and behavior. The knowledge variables were: knowledge of special foods for children six months of age or older, for children from one to two years old, for pregnant women, and for nursing mothers; knowledge of when to give liver to a young child; knowledge of when to begin giving greens to a young child. Since so few individuals mentioned sources of Vitamin A as special foods for children six months old and older, and for nursing mothers, only the other four categories were retained for analysis here.

The behavioral indicators from the questionnaire were: the husband bringing home snacks for the family; the wife buying food with money from her husband; the wife buying food with her own money; the wife eating liver last week; the family eating greens the last week. Since wives usually bought ingredients for sauces with the money from their husbands, that indicator has not been retained for this presentation of behavioral indicators.

In order to test for possible associations between exposure and these knowledge and behavioral indicators, cross tabulations were conducted between each source of messages (radio; skits; counseling cards) with the appropriate denominators. In addition, cross-tabulations were done between the message sources and the knowledge and behavioral indicators combined to form a scale (described below). Chi square and gamma values were used to test statistical significance.

For the study population as a whole, no relationship was found between exposure to radio messages and knowledge indicators when considered either individually or as a scale. There was a significant relationship between radio exposure and a woman having eaten liver the past week ($p < .02$). Eighty-three percent of those who heard a project message on the radio reported eating liver compared to 70% who were not exposed to the radio message. When considered as a scale, the behavioral indicators showed a marginal significance ($p < .05$).

The picture is somewhat different if one compares associations between radio exposure and outcome indicators only in villages with a VAT, where exposure to radio was higher than in those without a VAT (see table 17). There was no relationship between radio and any knowledge indicators; however, a significant relationship was found between three of the four behavioral indicators: husbands bring home snacks ($p < .04$), wife buying food ($p < .003$), and wife having eaten liver last week ($p < .04$). The relationship is especially strong for women buying food with their own money; 43% of those who heard the NCP radio programs bought Vitamin A foods compared to 21% who had not heard these programs. The relationship of the behavioral scale was also statistically significant ($p < .002$).

In villages with a VAT, the associations between having seen a skit proved to be marginally significant for knowledge of a special food for children 1-2 years old ($p < .05$) and for the knowledge indicators as a whole ($p < .05$). The relationship is strongest with husbands bringing home a snack with a source of Vitamin A ($p < .0002$, $\gamma = .55$); 59% of those who had seen a skit ($N=54$) had their husband bring home such a snack compared to 30% for those who did

not see a skit. Perhaps some wives spoke to their husbands about these foods. In addition, women were more likely to have eaten liver last week if they had seen a skit ($p < .03$), and the association with the overall scale was also significant ($p < .007$).

In villages without a VAT, women could have heard NCP radio programs and seen the counseling cards in group discussions. No relationships were found between any of the knowledge or behavioral indicators and having seen these cards. Although isolating the impact of any one medium is always problematic.

These analyses show very weak or no relationships at all between exposure to project messages and knowledge indicators. It is not surprising since the knowledge questions were designed to explore changes in subtle concepts related to cultural perceptions about the value of foods and also concepts being introduced by the campaign about age (of children) which the audience was not accustomed to dealing with. Women, for example, are not accustomed to thinking of introducing certain foods at a particular age. Also, the findings do not capture exposure to events such as the "liver and greens" festival and other interpersonal communication that would be expected to be set in motion by any communication event in a village.

The evaluation does show that radio was heard by more people in larger villages that tended to have better access to services and resources. They also show that seeing a skit about Vitamin A can influence behavior. Apparently, using counseling cards to animate group discussions about Vitamin A had little or no effect on Vitamin A consumption.

Major differences were also found between villages that had participated in Phase I and those new to the project (Phase II).

A total of eight of the follow-up survey villages in Birni N'Konni had been part of Phase I. We expected that individuals from those villages might be more likely to score higher on the knowledge indicators and be more likely to mention foods rich in Vitamin A than individuals from villages that had not been part of Phase I. Respondents were given a score for one of each of the following knowledge and behavior questions they answered correctly.

Knowledge: knowledge of special foods for 1-2 year olds; knowledge of correct age for introducing liver to young child; knowledge of special foods for pregnant women; knowledge of correct age for introducing greens to a young child. **Behaviors:** husband brings home vitamin A-rich snack; the woman buys such snacks with her own money; the family ate greens in the past week; and the woman ate liver last week.

Table 23 compares the villages of Phase I and II with those from Phase II only in knowledge and behavior scores for women.

**TABLE 23:
COMPARISON OF PHASE I/II VILLAGES
BASED ON KNOWLEDGE AND BEHAVIOR SCORES
OF WOMEN IN POST-SURVEY**

SCORE	Knowledge		Behavior	
	I & II	II Only	I & II	II Only
0	5%	13%	2%	4%
1	8%	20%	8%	15%
2	30%	33%	27%	36%
3	35%	26%	45%	32%
4	22%	9%	18%	13%

The above table shows that people in villages that were part of Phase I scored higher on both knowledge and behavioral scales, since the percentages for Phase I tend to be higher for the three and four categories.

With regard to both the knowledge and behavioral scale, the difference between persons from Phase I villages (N=8) and those in Phase II only villages (N=12) was highly significant. While this finding is not surprising, it is highly reassuring.

6.32 *Exposure and outcome indicators among men*

Since men were not asked about the counseling cards, a three point scale was created with the sample of men: 1 point for having heard the skits on the radio, and one point for having seen a skit. If the NCP had a direct effect on food consumption, one should be able to find correlations between exposure to messages and reported behavior.

If there were a direct relationship between exposure to NCP messages and behavior from the sample of men, it should appear in reports of what men brought home as snacks, and in whether or not children ate liver in the last week, for the decisions of men are critical in both of these indicators. Cross-tabulations between the exposure measure and reports of children eating liver do show a statistically significant relationship. The children of men exposed to NCP messages were more likely to have eaten liver last week than those not exposed ($p < .05$). Although men exposed to NCP messages were slightly more likely to bring home snacks that were sources of Vitamin A than those not exposed, the relationship was not statistically significant.

7. OPEN-ENDED INTERVIEWS

7.1 *Interviews with District Teams and the Technical Advisory Committee*

Interviews with members of the Technical Advisory Committee (TAC) showed strong support for the goals and overall strategy of the NCP. Conversations with individuals members of the TAC suggested that some would have liked more control over the operational details of the project, for to them, all the power as well as the distribution of funds originated in Washington. A new phase of the project would do well to make more explicit the respective responsibilities of the TAC as well as the NCP in Washington.

During the survey of men and women several members of the district training team in Illela and N'Konni were interviewed to ask about their supervisory activities and their impressions of the work of the village promotional agents they knew. Also interviewed was the radio journalist in Tahoua, Hachim Mohammed, who participated in the initial training workshop for district trainers and who was in charge of preparing and broadcasting the radio programs for the NCP. These interviews were conducted to compare the experiences of the three levels of personnel trained by the project: district officials who acted as trainers of trainers, village agents who led group discussions with counseling cards or who worked with the village volunteers (VAT) to present the skits, and the village volunteers themselves (in the villages with a VAT).

7.2 *Supervisors (encadreurs)*

The majority of the village promotional agents, or supervisors, are primary school teachers or agricultural extension agents. More specifically, three-fourths of the supervisors we met were either directors of schools or agricultural agents for an agricultural development project. Many villages have two supervisors, and most, but not all, live in the project village. They were asked to participate either by a district official or the village chief. Most expressed satisfaction with the initial training, but about half requested a follow-up session. Involving primary school teachers presents certain benefits to the NCP: many of them incorporate project information in their teaching, and they usually live in the village of their assignment. However, many of them travel during the holiday period, and a certain number are transferred to other schools each year. One of the members of the supervisory team in Illela reported that six of the 29 teachers working with the project in Illela district have been transferred to other schools, and thus lost to the project.

In discussions about project activities, three points were made by nearly all the supervisors in villages with a VAT. First, the supervisor suggests a theme and the VAT works out a skit based on that theme. Second, the counseling cards are used in the skits to introduce the subject, to make a point within skits, or as decoration for the stage. Third, they present these skits usually twice a month. The themes presented involve promoting the following foods: green leafy vegetables, mangoes, squash and liver. Dry season gardening is also a theme frequently

mentioned. One of the supervisors noted that since no one prepares or sells *brochettes* of liver, they talk about packages of liver rather than *brochettes*. Butchers do sell *brochettes* of entrails (stomach, tripe, heart, etc.) that include some liver, but not liver only. No one reported difficulties in working with the VAT in general, so the working relationships must be generally good from the perspective of the supervisors.

All of the supervisors reported that the team from Niamey had visited them at least once, and that the district team had visited the village at least two or three times. Two villages on the main road in N'Konni reported monthly visits from district officials. They expressed the desire for monthly visits from the district team to encourage them as well as encourage the members of the VAT. The district team in N'Konni reported that they are unable to visit nearly all the villages regularly, and they are unable to properly evaluate village activities, since they have but three days every two months for supervision.

In villages with a VAT, all the supervisors expressed concern that the members would soon become discouraged and stop project activities. This seems to be more true of men than of women. They recommended that the project provide small gifts from time to time to encourage them. This was also a recommendation made by the evaluation of Phase I (Mini Project). They also suggested that the project provide lamps, mats, costumes for the role plays, and money to purchase the objects (mangoes, squash, green leafy vegetables, liver) concerning the theme of the skits for the occasion. Several supervisors asked for assistance to expand their activities to neighboring villages. The supervisors in villages without a VAT had fewer recommendations, though several requested training to present role plays.

Although there was a range in the understanding and abilities of the supervisors, most of them seem perfectly capable of implementing project activities. They expressed enthusiasm for the project and would like to continue activities. Several of the supervisors whose villages were named on the radio when their skit was broadcast talked about that with great pride. Based on these conversations, four recommendations emerge for the next phase of the project.

1. District teams be given the means to make monthly visits to each of the participating villages. This could be accomplished by dividing supervisory visits to the villages among members of the district team, as Illela has already done. Without regular supervision for a long time period, it will be difficult to continue project activities in the long run.
2. Find an appropriate formula to give small gifts to members of the VAT from time to time, perhaps every three months. Although that may be less important than regular visits, it will help. Both supervisors and VAT members must know that the project is serious in supporting them, and that what they are doing is very important to people in Niamey as well as for the village population.
3. Explore use of radio spots as a way to give more publicity to the villages doing skits. This could provide a way of building motivation and giving recognition to the effort of villagers.

4. Train at least one VAT in all villages to perform skits. Besides being inexpensive, it greatly widens the numbers of people involved in project activities, since each VAT member has numerous contacts with villagers.

7.3 Village Volunteers (Comité Villageois d'Animation)

The initial plan for interviewing VAT members was to see two or three per village (20 villages) in their own homes. In nearly all the villages, all members of the VAT were present the day of our visit. Many villages had two VATs (10 volunteers) as well as two supervisors. They are all long time residents in their own villages. Interviews with VAT members were all conducted in Hausa by Abdoulaye Abou; most were individual interviews, a few were group interviews (their request). A total of 36 forms were filled out. Many reported that they volunteered to participate, while others said the chief or ward leader designated them. Most considered the two or three days of training sufficient for what they were doing.

Almost everyone reported good relations with the supervisors who seem to direct VAT activities rather closely. Only one village (out of 20) reported serious problems with the supervisor. According to them, the supervisor sets the schedule for their meetings, chooses the themes for the skits, teaches them more about the project, and corrects their presentations during rehearsal. The description of their interactions suggests that most supervisors dictate what the VAT members should do, and that this mode of interaction is accepted.

The responses to the question about the nature and frequency of supervision were extremely varied. Most reported having seen the Niamey team once, and the district team at least once since April. Some reported having received kola nuts and money for kerosene, others mentioned having received mats. Several groups also received cloth recently. Most members of the VAT asked for more regular supervision both to encourage them and verify they were on the right track. A number stated that they had made requests to the Niamey team but never received an answer.

The VAT members spoke with great enthusiasm about preparing and presenting the skits for the project. Most VATs met at least once a week to rehearse and presented a skit two or three times a month. They use the counseling cards as reference points and inspiration to develop their themes. When the skit is over they ask questions of the audience, and the audience also asks them questions. It is not easy to determine to what extent the skits communicate a particular message, along with the cards, but the VAT members believe their messages are properly understood by the population.

When asked for suggestions for improving the project, a few mentioned they would like the means to visit neighboring villages as well. Nearly everyone suggested that the project provide them with materials to use in their presentation (mats, lamps, outfits to wear, or seeds) plus a small gift now and then. They do seem enthusiastic as a whole, and a way should be found to enable them to continue their activities.

The interview data from members of the VATs show the enthusiasm of volunteers as they begin a program with good will and desire to be useful. Very few complaints were made. A new phase of the project might consider the following suggestions:

1. That supervision be regular - once a month if possible - and that the person(s) doing the supervision spend time with the VAT as well as the supervisor.
2. That a way be found to separate supervisory visits from distribution of "goodies." At the moment both supervisors and VAT members expect something every time they show up. This tends to distract from the business of evaluation their activities and responding to their problems related to the project.
3. That if a new round is implemented, all VATs be retrained in order to give them more of a sense of belonging to a larger group. This would be an occasion for some to present what they've been developing on their own as well.
4. That a way be found to provide small gifts from time to time as a token of appreciation for their work. We cannot expect that volunteer work can last in Niger any more than in other African countries. USAID has very recently decided not to support the village health worker program any longer in Niger because the system did not work. We should not expect these people to continue for very long without more recognition.

8. CONCLUSION: PROGRAM IMPACT

Evidence of program impact are found in three types of analyses: comparison between baseline and follow-up data of indicators of knowledge of foods that should be eaten; baseline and follow-up comparison of indicators of foods consumed; examination of the relationship between being exposed to project messages and knowledge and behavior indicators (in VAT/Non-VAT villages, as well as those which participated in Phase I and Phase II).

Comparison of baseline and follow-up data showed major increases in the percent of women who mentioned foods rich in Vitamin A as foods certain at-risk populations should eat. For children one to two years old, the percent of women who mentioned such foods increased from 32% to 57%. The percent who cited *yamoutse* went from 0% to 27%, although no relationships to program exposure were found. Regarding pregnant mothers, 77% of women and 59% of men mentioned foods rich in Vitamin A compared with 33% and 12% in the baseline. Thus about twice as many women in the follow-up survey named foods rich in Vitamin A as foods children and pregnant mothers should eat. Changes related to children six months of age and to nursing mothers were in the same direction but smaller.

Very few differences were found between the two surveys regarding the age at which liver and dark leafy greens are to be introduced to young children. The percent of women who inappropriately give liver before six months of age was noted even though the project advocated giving liver at six months, not before.

The survey did not find evidence that more men were growing crops rich in Vitamin A in their dry season gardens. Since the project chose not to provide seeds or subsidize other agricultural inputs (that were available commercially), this may have affected the outcome. Many other explanations are possible, including economic issues related to time, effort and opportunity costs of "sacrificing" commercial crops to plant vegetables for the family.

Three critical indicators of reported consumption of food showed major changes in the follow-up survey. The percent of women reporting that their husband brought home snacks rich in Vitamin A increased from 11% to 47%; the percent of women who bought such foods with their own money increased from 10% to 37%; the percent of women who reported eating liver in the last week increased from 43% to 73%. The principal differences are found in the numbers of people who obtained liver and *yamoutse*. Other greens, squash, and fruit were far less important in these changes. This was to be expected since during the cool, dry season when the survey was conducted, few fruits were available. Fresh greens would have been available from watered gardens and perhaps from along the banks of rivers and water holes. Squash, however, was available since November and December are periods of greatest abundance.¹⁰

About 40% of women and 60% or more of men heard an NCP program on the radio, saw a skit performed, or saw the counseling cards. The percent of men exposed is an estimate, for they were not asked whether they saw the counseling cards. Forty-seven percent heard or saw a skit, while many others saw the cards. Less evidence of direct effects of the program was found than expected. It is likely that the program had both direct and indirect effects on food consumption.

Significant relationships were found between exposure to radio and to seeing the skits and several indicators of consumption of Vitamin A foods in villages with better access to services and resources (those with a VAT). This suggests that numerous factors related to food consumption act together to affect behavior.

The NCP project obtained these results in a relatively short period of time - a ten month campaign - with limited funds. The method of training supervisors to work with village volunteers who then present skits promoting the consumption of Vitamin A - rich foods has potential, although further experimentation is needed to determine if this is a cost-effective strategy. Conversations with participants in the project at all levels (Niamey, province, district, village) indicated that in order to improve impact and maintain communication activities over time and sustain behavioral change, future efforts should put in place:

¹⁰ Nancy Keith, Field Research in Birni N'Konni, Academy for Educational Development, Washington, D.C., 1991.

- ▶ a system for more regular and systematic supervision; this would include helping village drama teams come up with performance plans designed to cover all neighborhoods in their village, rather than just their own.
- ▶ a means to encourage village volunteers to continue their animation activities; not money, but signs of appreciation which makes them feel part of a larger effort at mobilizing the population. This might include use of radio spots to feature villages and actors; funds to perform in neighboring villages.

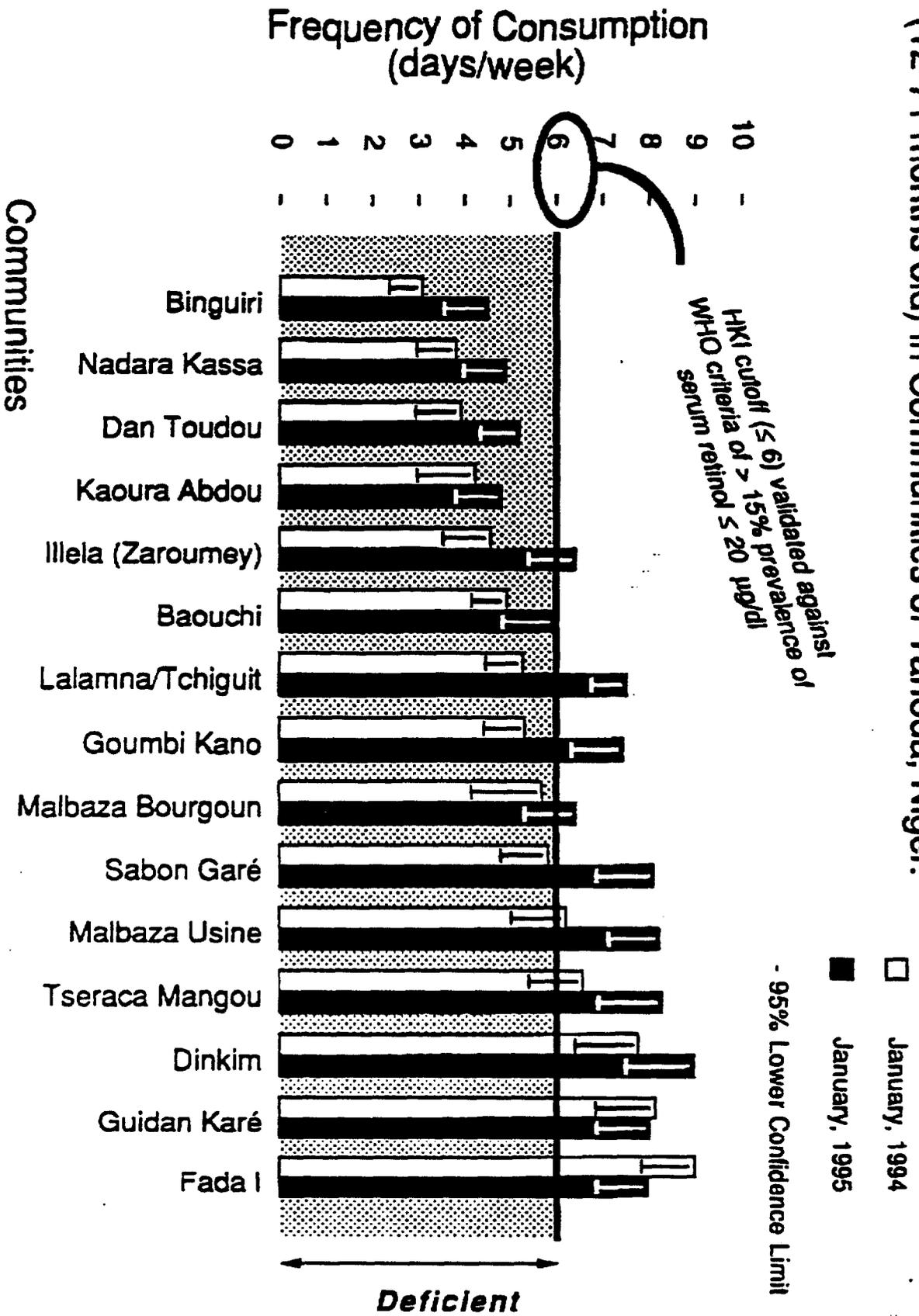
Such recommendations are common for communication projects based largely on volunteer participation. The long experience of training village health workers in Africa has shown the fundamental importance of regular support and supervision for such activities to be sustained. The cost and impact of the village dramas should be re-examined once these suggested measures are tested.

ANNEX A

**HKI 1995 SURVEY RESULTS:
FREQUENCY OF CONSUMPTION OF VITAMIN A-RICH FOODS
AMONG CHILDREN**

44

Frequency of Consumption of Vitamin A-Rich Foods Among Children (12-71 months old) in Communities of Tahoua, Niger.



Handwritten mark

ANNEX B

SURVEY QUESTIONNAIRES IN FRENCH

11. Est-ce qu'il se trouve au village ces jours-ci? 1 oui 0 non /

III. Alimentation

Nous avons maintenant quelques questions sur l'alimentation.

12. D'après vous, y-a-t-il des aliments spéciaux que les enfants doivent manger à partir de six mois?

1 Oui 0 non
(passez à #14)

13. Lesquels?

___ Foie ___ Viande ___ Fruits ___ Mil ___ Lait ___ Légumes
___ Arachides ___ Oeufs ___ Feuilles ___ Courges ___ Yamoutsé
___ Bouillie ___ Pâtes ___ Autres (à préciser)..... []

14. D'après vous, y-a-t-il des aliments spéciaux que les femmes enceintes doivent manger?

1 Oui 0 non
(passez à #16)

15. Lesquels?

___ Foie ___ Viande ___ Fruits ___ Mil ___ Lait ___ Légumes
___ Arachides ___ Oeufs ___ Feuilles ___ Courges ___ Yamoutsé
___ Bouillie ___ Pâtes ___ Autres (à préciser)..... []

16. D'après vous, y-a-t-il des aliments spéciaux que les femmes allaitantes doivent manger?

1 Oui 0 non
(passez à #18)

17. Lesquels?

___ Foie ___ Viande ___ Fruits ___ Mil ___ Lait ___ Légumes
___ Arachides ___ Oeufs ___ Feuilles ___ Courges ___ Yamoutsé
___ Bouillie ___ Pâtes ___ Autres (à préciser)..... []

18. D'après vous, y-a-t-il des aliments spéciaux que les enfants de un à deux ans doivent manger?

1 Oui 0 non
(passez à #20)

19. Lesquels?

___ Foie ___ Viande ___ Fruits ___ Mil ___ Lait ___ Légumes
___ Arachides ___ Oeufs ___ Feuilles ___ Courges ___ Yamoutsé
___ Bouillie ___ Pâtes ___ Autres (à préciser)..... []

(référez-vous à la question #10. Si la femme est seule à prendre en charge la famille, coc PAS APPLICABLE pour #20 et #22 sans poser les questions et allez à #24)

20. Au cours de la semaine dernière, pendant combien de jours est-ce que votre mari a amené des friandises à la maison?

_____ jours 8 pas applicable, son mari était absent /___/

(si la réponse est «0», passez à la question #22)

21. Qu'est-ce qu'il a amené comme friandises?

___Mangues ___patates douces ___Arachides ___Yamoutsé ___viande
___Foie ___bonbons ___Beignets de niébé ___manioc ___courges
___Fruits ___cane à sucre
___autre.....[___][___]

22. Au cours de la semaine dernière, pendant combien de jours est-ce que votre mari vous a donné de l'argent pour acheter des aliments?

_____ jours 8 pas applicable, son mari (homme) était absent /___/

(si la réponse est «0», passez à la question #24)

23. Quels aliments avez-vous acheté avec cet argent?

___Foie ___Viande ___Fruits ___Mil ___soubala ___Légumes
___Arachides ___Huile ___Feuilles ___Courges ___Yamoutsé
___Tomates ___Beignets de niébé ___Autres (à préciser).....[___]
 ___Condiments (demander des précisions)

24. Au cours de la semaine dernière, pendant combien de jours avez-vous utilisé votre propre argent pour acheter des aliments?

_____ jours 8 pas applicable, son mari était absent /___/

(si la réponse est «0», passez à la question 26)

25. Quels aliments avez-vous acheté avec votre propre argent?

___Foie ___Viande ___Fruits ___Mil ___soubala ___Légumes
___Arachides ___Huile ___Feuilles ___Courges ___Yamoutsé
___Tomates ___Beignets de niébé ___Autres (à préciser).....[___]
 Condiments (demander des précisions)

26. Qui mange d'habitude le foie chez vous?

___toute la famille ___mon mari ___femmes enceintes
___les enfants ___moi-même ___les malades en général
___ceux qui ont le «doundoumi» ___femmes allaitantes
___autres (à préciser).....
___on ne mange pas le foie chez nous (passez à #29)

27. Au cours de la semaine dernière, pendant combien de jours avez-vous mangé du foie?

___ jours 8 je ne sais pas

28. A quel âge est-ce que vous commencez à donner du foie à un enfant?

___ âge en mois 66 dentition
77 je n'en donne pas 88 je ne sais pas

29. A quel âge est-ce que vous commencez à donner le kopto à un enfant?

___ âge en mois 66 dentition
77 je n'en donne pas 88 je ne sais pas

30. Au cours de la semaine dernière, pendant combien de jours est-ce que votre famille a mangé des feuilles fraîches vert foncé? (ex. oseille, amarante, etc.)

___ jours 8 je ne sais pas

(si la réponse est «0» passer à la question 32)

31. D'où proviennent-elles, ces feuilles?

___ le jardin de mon mari ___ mon propre jardin
___ on les a achetés ___ on les a cueillies en brousse
___ autres (à préciser)..... [___]

IV. Module de Communication

Nous avons enfin quelques questions sur la radio.

32. Avez-vous un poste radio qui fonctionne dans le ménage?

1 Oui 0 Non

33. Pendant la semaine passée, est-ce que vous avez écouté la radio quelque part?

1 Oui 0 Non
(passez à #36)

34. Pendant combien de jours de la semaine passée avez-vous écouté la radio?

___ jours 8 je ne sais pas

35. Quelles stations avez-vous écoutées?

___ Radio Niger Niamey ___ Radio Niger Tahoua ___ Radio Nigéria ...
___ BBC ___ autre ___ je ne sais pas

36. Pendant les semaines passées, est-ce que vous avez entendu une émission à la radio concernant la santé ou l'alimentation?

1 Oui 0 non
(passez à #38)

/___/

37. Cette émission était diffusée sur quelle station?

___ Radio Niger Niamey ___ Radio Niger Tahoua ___ Radio Nigéria
___ BBC ___ autre ___ je ne sais pas

38. La radio Tahoua a diffusé des spots il y a plusieurs mois concernant la santé avant et après les actualités. Est-ce que vous avez déjà écouté ces spots?

1 Oui 0 Non
(passez à #40)

/___/

39. Combien de fois vous les aviez écoutés?

1 une fois 2 plusieurs fois 3 souvent 8 je ne sais pas

/___/

40. La radio Tahoua diffuse des sketches de théâtre concernant la santé le dimanche après-midi. Est-ce que vous avez déjà écouté ces sketches?

1 Oui 0 Non
(passez à #43)

/___/

41. Combien de fois vous les avez écoutés le mois passé?

___ fois 8 je ne sais pas

/___/

42. Quel était le sujet/thème d'une des émissions?

___ cécité nocturne (doundoumi) ___ la santé
___ jardinage/agriculture ___ manger du foie
___ des feuilles vertes ___ autre [___]
___ Vitamine A ___ je ne sais pas

43. Dans votre village y a-t-il une troupe qui fait du théâtre?

1 Oui 0 Non 3 je ne sais pas

/___/

44. Dans certains villages des gens ont joué des sketches concernant la santé ou l'alimentation des femmes et enfants. Est-ce que des gens l'ont déjà fait ici dans votre village?

1 Oui 0 Non 3 je ne sais pas

/___/

45. Avez-vous déjà vu un tel sketch?

1 Oui 0 Non 3 je ne sais pas
(passez à #48) (passez à #48)

/___/

46. Combien de fois vous avez vu des sketches?

___ fois 66 très souvent 88 je ne sais pas

/___/___

47. Quel était le sujet/thème d'un des sketches, s.v.p.

___ cécité nocturne (doundoumi) ___ la santé
___ jardinage/agriculture ___ manger du foie
___ des feuilles vertes ___ autre[___]
___ Vitamine A ___ je ne sais pas

(Montrez plusieurs des cartes de conseil à la femme)

48. Regardez ces cartes s.v.p. Est-ce que quelqu'un vous les a déjà montrées?

1 Oui 0 Non 3 je ne sais pas
(passez à #51) (passez à #51)

/___/

49. Qui vous a montré les cartes?

___ agent de santé ___ je les ai vues dans un sketch
___ membre du Comité d'Animation du Village?
___ agent d'agriculture ___ instituteur ___ je ne sais pas
___ autre _____ [___]

50. Qu'est-ce que vous avez retenu de ces cartes?

..... [___]
..... [___]
..... [___]

Pour terminer, nous avons une image à vous montrer. La voici.

51. Qu'est-ce qu'il fait cet homme?

1 il bavarde avec le vendeur 4 il achète des brochettes de foie
2 il regarde les brochettes 5 je ne sais pas
3 il achète des brochettes 6 autre[___] /___/

52. Oui, en effet, il achète des brochettes de foie. Pourquoi le fait-il?

___ parce ce qu'il a faim ___ pour donner à sa femme/ses enfants
___ il voudrait que sa femme/ses enfants mange les brochettes de foie
___ c'est bon pour la santé de la famille ___ je ne sais pas
___ autre[___]

Note à l'enquêteuse : Remercier la femme pour sa patience et sa participation.

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Questionnaire supplémentaire sur les habitudes alimentaires

HOMME

I. IDENTIFICATION

- 1. Numéro de Référence /___/___/
- 2. Arrondissement /___/
- 3. Village /___/
- 4. Date de l'interview /___/
- 5. Numéro de l'enquêteur /___/
- Questionnaire vérifié? _____
- 6. Questionnaire corrigé par le superviseur ... /___/

II. Introduction

7. Je m'appelle et je travaille pour le Projet Vitamine A. Je voudrais vous poser quelques questions concernant l'alimentation de votre famille. Est-ce que vous voulez bien répondre aux questions?

1 Oui 0 Non /___/
(remerciez l'homme et terminer l'interview)

7a. Comment vous appelez-vous?

8. Est-ce que vous avez des enfants qui ont cinq ans ou moins de cinq ans?

1 Oui 0 Non /___/
(remerciez l'homme et terminer l'interview)

9. Qu'est-ce que vous faites comme travail? [___]

10. Est-ce que vous avez un jardin de contre saison cette année?

1 Oui 0 Non /___/
(passez à #12)

11. Qu'est-ce que vous cultivez cette année?

Oignons Chou Salade Manioc Tomates Piments
 Rukubu Courge Niébé Lalo Tafassa Patates douces
 Tamakka Autres légumes européennes []
 Autres feuilles vertes traditionnelles []

12. Au cours de la semaine dernière, pendant combien de jours est-ce que vous avez amené des friandises à la maison?

jours 8 je ne sais pas /

(si la réponse est «0», passez à la question 14)

13. Lesquelles?

mangues patates douces arachides Yamoutsé Viande
 Foie bonbons Beignets de niébé manioc courge
 Fruits canne à sucre
 autre [] []

14. Au cours de la semaine dernière, pendant combien de jours est-ce que vous avez donné de l'argent à votre femme pour acheter des aliments?

jours 8 je ne sais pas /

(si la réponse est «0», passer à la question 16)

15. Cet argent servait à acheter quels aliments?

Foie Viande Fruits Mil soubala Légumes
 Arachides Huile Feuilles Courges Yamoutsé
 Tomates Beignets de niébé Autres []
 je ne sais pas

16. Qui mange d'habitude le foie chez vous?

toute la famille ma femme femmes enceintes
 les enfants moi-même les malades en général
 ceux qui ont le «doundoumi» femmes allaitantes
 on ne mange pas le foie chez nous (passez à #20)

17. Au cours de la semaine dernière, pendant combien de jours vos enfants ont-ils mangé du foie?

___ jours 8 je ne sais pas

/___/

18. Au cours de la semaine dernière, pendant combien de jours est-ce que votre femme a mangé du foie?

___ jours 8 je ne sais pas

/___/

19. A quel âge est-ce que vous commencez à donner du foie à un enfant?

___ âge en mois 66 dentition
77 je n'en donne pas 88 je ne sais pas

/___/___/

20. Au cours de la semaine dernière, pendant combien de jours est-ce que vos enfants ont mangé des feuilles fraîches vert foncé?

___ jours 8 je ne sais pas

/___/

(si la réponse est «0», passez à la question 22)

21. D'où proviennent-elles, ces feuilles?

___ le jardin de ma femme ___ mon propre jardin
___ on les a achetées ___ on les a cueillies en brousse
___ autres (à préciser)..... [___]

22. D'après vous, y-a-t-il des aliments spéciaux que les femmes enceintes doivent manger?

1 Oui 0 Non 3 je ne sais pas
(passez à #24) (passez à #24)

/___/

23. Lesquels?

___ Foie ___ Viande ___ Fruits ___ Mil ___ Lait ___ Légumes
___ Arachides ___ Oeufs ___ Feuilles ___ Courges ___ Yamoutsé
___ Bouillie ___ Pâtes ___ Autres (à préciser)..... [___]

24. D'après vous, y-a-t-il des aliments spéciaux que les femmes allaitantes doivent manger?

1 Oui 0 Non 3 je ne sais pas
(passez à #26) (passez à #26)

/___/

5

25. Lesquels?

Foie Viande Fruit Mil Lait Légumes
 Arachides Oeufs Feuilles Courges Yamoutsé
 Bouillie Pâtes Autres (à préciser)..... []

26. D'après vous, y-a-t-il des aliments spéciaux que les enfants de un à deux ans doivent manger?

1 Oui 0 Non 3 je ne sais pas
(passez à #28) (passez à #28)

27. Lesquels?

Foie Viande Fruit Mil Lait Légumes
 Arachides Oeufs Feuilles Courges Yamoutsé
 Bouillie Pâtes Autres (à préciser)..... []

Pour terminer, nous avons quelques questions concernant la radio.

28. Avez-vous un poste radio qui fonctionne dans le ménage?

1 Oui 0 Non

29. Pendant la semaine passée, est-ce que vous avez écouté la radio quelque part?

1 Oui 0 Non
(passez à #32)

30. Pendant combien de jours de la semaine passée avez-vous écouté les émissions sur la radio?

jours 8 je ne sais pas

31. Quelles stations avez-vous écoutées?

Radio Niger Niamey Radio Niger Tahoua Radio Nigéria
 BBC autre je ne sais pas

32. Pendant le mois passé, est-ce que vous avez entendu une émission à la radio concernant la santé ou l'alimentation?

1 Oui 0 Non
(passez à #34)

33. Cette émission était diffusée sur quelle station?

Radio Niger Niamey Radio Niger Tahoua Radio Nigéria
 BBC autre je ne sais pas

34. La radio Tahoua diffuse des sketches de théâtre concernant la santé le dimanche après-midi. Est-ce que vous avez déjà écouté ces sketches?

1 Oui 0 Non
(passez à #37)

/___/

35. Combien de fois vous les avez écoutés le mois passé?

fois 8 je ne sais pas

/___/

36. Quel était le sujet/thème d'une des émissions?

célébrité nocturne (doundoumi) la santé
 jardinage/agriculture manger du foie
 manger feuilles vertes autre [___]
 Vitamine A je ne sais pas

37. Dans certains villages il y a des Comités Villageois d'Animation. Est-ce qu'il y en a dans votre village?

1 Oui 0 Non 3 je ne sais pas

/___/

38. Ces CVA jouent parfois des sketches concernant la santé et l'alimentation. Est-ce qu'ils le font dans votre village?

1 Oui 0 Non 3 je ne sais pas

/___/

39. Avez-vous déjà vu à un tel sketch?

1 Oui 0 Non 3 je ne sais pas
(allez à #41) (allez à #41)

/___/

40. Combien de fois vous avez vu de tel sketches?

fois 66 très souvent 88 je ne sais pas

/___/___/

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41. Je voudrais savoir si vous avez certains objets chez vous, notamment:
(écrivez 1 ou 0 dans chaque case selon les réponses)

1 Oui 0 Non

- | | | |
|----|----------------|------------------------------|
| a) | âne | / <input type="checkbox"/> / |
| b) | charrette | / <input type="checkbox"/> / |
| c) | cheval | / <input type="checkbox"/> / |
| d) | jardin irrigué | / <input type="checkbox"/> / |
| e) | moto | / <input type="checkbox"/> / |

Note à l'enquêteur : Remercier l'homme pour sa patience et sa participation. Procéder à la prochaine famille.

ANNEX C

SURVEY QUESTIONNAIRES IN HAUSA

I. IDENTIFICATION

1. Numéro de Référence /__ /__ /__ /

2. Arrondissement /__ /

3. Village /__ /__ /

4. Date de l'interview /__ /__ /

5. Numéro de l'enquêteur /__ /

Questionnaire vérifié? _____

6. Questionnaire corrigé par le superviseur /__ /

II. Introduction

7. Sounana Projet Bitamine A niké aiki. Mounzo garinkou dan mouyi moukou tambayoyi bissa aboubouwan da souka chahi lahiya da abintchi. Kina iya bamou amsa?

1 Oui 0 Non

(remerciez la femme et terminer l'interview) /__ /

7a. Mi sounan ki?

8. Kina da yaran massou chékara biyar ko wadānda ba sou kaī ba?

1 Oui 0 Non

(remerciez la femme et terminer l'interview) /__ /

9. Ina son ki bani sounayen wad'annan yaran da shékarounsou. Mou fara da karamin.

NOM	AGE(mois)	Garçon ou Fille	G/F
1	1 2	/__ /	
2	1 2	/__ /	
3	1 2	/__ /	

10. Wa ké koula da iyalin kou?

1 mari 2 autre homme/femme

3 personne

(passez à #12)

/__ /

11. Ya na garin yanzou? 1 Oui 0 Non

/__ /

III. Alimentation

Yanzou ina da tambayoyi bissa abintchi.

12. A ganinki, akway abintchi da yakkamata yara sou tchi da ga wata chida?

1 Oui 0 Non 3 je ne sais pas /___/

(passez à #14) (passez à #14)

13. Wané iri?

___ Foie ___ Viande ___ Fruit ___ Mil ___ Lait ___ Légumes
___ Arachides ___ Oeufs ___ Feuilles ___ Courges ___ Yamoutsé
___ Bouillie ___ Pâtes ___ Autres (à préciser)..... []

14. A ganinki, akway abintchi da matché mai tchiki yakkamata ta tchi?

1 Oui 0 Non 3 je ne sais pas /___/

(passez à #16) (passez à #16)

15. Wané iri?

___ Foie ___ Viande ___ Fruit ___ Mil ___ Lait ___ Légumes
___ Arachides ___ Oeufs ___ Feuilles ___ Courges ___ Yamoutsé
___ Bouillie ___ Pâtes ___ Autres (à préciser)..... []

16. A ganinki, akway abintchi da matché mai ban nono yakkamata ta tchi?

1 Oui 0 Non 3 je ne sais pas /___/

(passez à #18) (passez à #18)

17. Wané iri?

___ Foie ___ Viande ___ Fruit ___ Mil ___ Lait ___ Légumes
___ Arachides ___ Oeufs ___ Feuilles ___ Courges ___ Yamoutsé
___ Bouillie ___ Pâtes ___ Autres (à préciser)..... []

18. A ganinki, akway abintchi da yara in chékara daya zouwa biyou yakkamata sou tchi?

1 Oui 0 Non 3 je ne sais pas /___/

(passez à #20) (passez à #20)

19. Wané iri?

___ Foie ___ Viande ___ Fruit ___ Mil ___ Lait ___ Légumes
___ Arachides ___ Oeufs ___ Feuilles ___ Courges ___ Yamoutsé
___ Bouillie ___ Pâtes ___ Autres (à préciser)..... []

(retenez-vous à la question #10. Si la femme est seule à prendre en charge la famille, cochez PAS APPLICABLE pour #20 et #22 sans poser les questions, et allez à #24)

20. Tchikin bakoye, kwana nawa aka kawo moukou kayan kwadai?

___ jours 8 pas applicable, son mari (homme) était absent / ___/

(si la réponse est «0», passez à la question #22)

21. Wané iri?

___ Mangues ___ patates douces ___ Arachides ___ Yamoutsé ___ Viande
___ Foie ___ bonbons ___ Beignets de niébé ___ Manioc ___ Courges
___ Fruits ___ Canne à sucre
___ autre [] []

22. Tchikin bakoye da ya woutché, kwana nawa aka baki koudin sayan abintchi?

___ jours 8 pas applicable, son mari (homme) était absent / ___/

(si la réponse est «0», passez à la question 24)

23. Wané irin abintchi kika saya da koudin nan?

___ Foie ___ Viande ___ Fruits ___ Mil ___ soubala ___ Légumes
___ Arachides ___ Huile ___ Feuilles ___ Courges ___ Yamoutsé
___ Tomates ___ Beignets de niébé ___ Autres (à préciser..... []
___ Condiments (demander des précisions)

24. Bakkon da ya woutché, kwana nawa kika hidda koudin ki dan sayan abintchi?

___ jours 8 pas applicable, son mari (homme) était absent / ___/

(si la réponse est «0», passez à la question 26)

25. Wané irin abintchi kika saya da koundin ki?

___ Foie ___ Viande ___ Fruits ___ Mil ___ soubala ___ Légumes
___ Arachides ___ Huile ___ Feuilles ___ Courges ___ Yamoutsé
___ Tomates ___ Beignets de niébé ___ Autres (à préciser..... []
Condiments (demander des précisions)

26. Waké da sabon tchin anta guidan kou?

___ toute la famille ___ mon mari ___ femmes enceintes
___ les enfants ___ moi-même ___ les malades en général
___ ceux qui ont le «doundoumi» ___ femmes allaitantes
___ autres (à préciser..... []
___ on ne mange pas le foie chez nous (passez à #29)

27. Tchikin bakoy da ya woutché, kwana nawa kika tchi anta?

___ jours 8 je ne sais pas /___/

28. Daga wata nawa kike fara ba yaro anta?

___ âge en mois 66 dentition
77 je n'en donne pas 88 je ne sais pas /___/___/

29. Daga wata nawa kike fara ba yaro yamoutsé?

___ âge en mois 66 dentition
77 je n'en donne pas 88 je ne sais pas /___/___/

30. Tchikin bakoye da ya woutché, kwana nawa iyalin ki souka tchi ganyé ko haki?
(ex. lalo, suré, tafassa)

___ jours 8 je ne sais pas /___/

(si la réponse est «0» passer à la question 32)

31. Kaka kouké samin sou?

___ le jardin de mon mari ___ mon propre jardin
___ on les a achetés ___ on les a cueillies en brousse
___ autre (à préciser..... []

IV. Module de Communication

Yanzou mouna tambayoyi bisa tsaré-tsaren tchikin radiyo.

32. Akoye radiyo da kou ké sawraré a guida?

1 Oui 0 Non /___/

33. Bakkon da ya woutché, kin sawrari radiyo guida ko wani wouri?

1 Oui 0 Non

(passez à #36)

/___/

34. Kwana nawa kika sawraré radiyo ga bakwon nan?

___ jours

8 je ne sais pas

/___/

35. Watché tasha tché kika sawrara?

___ Radio Niger Niamey ___ Radio Niger Tahoua ___ Radio Nigéria

___ BBC ___ autre ___ je ne sais pas

36. Kwanakin baya kin sawrari chirin daya chahi lahiya ko abintchi?

1 Oui 0 Non

(passez à #38)

/___/

37. Watché tasha tché ta yi wan nan tsarin?

___ Radio Niger Niamey ___ Radio Niger Tahoua ___ Radio Nigéria

___ BBC ___ autre ___ je ne sais pas

38. Kwanakin baya radiyon Tahoua, ta yi gargadi bissa lahiya. Kin ta ba sawraran wannan gargadin?

1 Oui 0 Non

(passez à #40)

/___/

39. So nawa kika sawrara?

1 une fois 2 plusieurs fois 3 souvent 8 je ne sais pas

/___/

40. Guidan radiyon Tahoua, na shirya wassanin koykoyo bissa kiwon lahiya ranar lahhadi da maratché. Kin ta ba sawraran wadan nan wassanin?

1 Oui 0 Non

(passez à #43)

/___/

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41. Watan daya woutché, so nawa kika sawrari wadan nan wassanin?

___ fois 8 je ne sais pas /___/

42. Mi kinka gané?

___ cécité nocturne (doundoumi) ___ la santé
___ jardinage/agriculture ___ manger du foie
___ manger feuilles vertes ___ autre..... []
___ Vitamine A ___ je ne sais pas

43. Tchikin garin kou, akoye massou wassan koykoyo?

1 Oui 0 Non 3 je ne sais pas /___/
(passez à #45) (passez à #45)

44. Soun taba wassa bissa kiwon lahiya ko abintchi?

1 Oui 0 Non 3 je ne sais pas /___/

45. Kin taba ganin wassan koykoyo bissa kiwon lahiya ko abintchi?

1 Oui 0 Non 3 je ne sais pas /___/
(passez à #48) (passez à #48)

46. So nawa kinka taba gani?

___ fois 66 très souvent 88 je ne sais pas /___/___/

47. Mi kinka gané?

___ cécité nocturne (doundoumi) ___ la santé
___ jardinage/agriculture ___ manger du foie
___ manger feuilles vertes ___ autre []
___ Vitamine A ___ je ne sais pas

(Montrez plusieurs des cartes de conseil à la femme)

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48. Dibi photounan ga. Kanaaba gwada miki sou?

- 1 Oui 0 Non 3 je ne sais pas
- (passez à #51) (passez à #51)

/ ___ /

49. Wa ya taba gwada miki sou?

- ___ agent de santé ___ je les ai vues dans un sketch
- ___ membre du Comité d'Animation du Village?
- ___ agent d'agriculture ___ instituteur ___ je ne sais pas
- ___ autre []

50. Mi kika gané ga photounan ga?

- []
- []
- []

51. Dibi wanga photon? Mi yé ké yi?

- 1 il bavarde avec le vendeur 4 il achète des brochettes de foie
- 2 il regarde les brochettes 5 je ne sais pas
- 3 il achète des brochettes 6 autre [] / ___ /

52. Aï tchinoni né yaké sayé; Ha kafa tchinonin anta né yaké sayé.

Q. Don mi ya ké sayen sou?

- ___ parce qu'il a faim ___ pour donner à sa femme/ses enfants
- ___ il voudrait que sa femme/ses enfants mange les brochettes de foie
- ___ c'est bon pour la santé de la famille ___ je ne sais pas
- ___ autre []

Note à l'enquêtrice : Remercier la femme pour sa patience et sa participation. Répondre aux questions si elle en pose.

Questionnaire supplémentaire sur les habitudes alimentaires

HOMME

I. IDENTIFICATION

1. Numéro de Référence /__ /__ /__ /

2. Arrondissement /__ /

3. Village /__ /__ /

4. Date de l'interview /__ /__ /

5. Numéro de l'enquêteur /__ /

Questionnaire vérifié? _____

6. Questionnaire corrigé par le superviseur /__ /

II. Introduction

7. Sounana Projet Vitamine A niki aiki. Mounzo garinkou dan mouyi
moukou tambayoyi bissa aboubouwan da souka chahi lahiya da abintchi. Kouna iya bamou amsa?

1 Oui 0 Non
(remerciez la femme et terminer l'interview) /__ /

7a. Mi sounan kou?

8. Kouna da yara massou chekara biyar ko wadanda ba sou kai ba?

1 Oui 0 Non
(remerciez l'homme et terminer l'interview) /__ /

9. Wané aiki kouké yi? /__ /

10. Kouna noman rani?

1 Oui 0 Non
(passez à #12) /__ /

11. Mi kouka noma wa bana?

___ Oignons ___ Chou ___ Salade ___ Manioc ___ Tomates ___ Piments
___ Rukubu ___ Courge ___ Niébé ___ Lalo ___ Tafassa ___ Patates douces
___ Tamakka ___ Autres légumes européennes []
___ Autres feuilles vertes traditionnelles (à préciser)..... []

12. Tchikin bakwaï kwana nawa kouka kawo kayan kwadaï guida?

___ jours 8 je ne sais pas /___/

(si la réponse est «0», passer à la question 14)

13. Wané irin kayan kwadaï?

___ Mangues ___ patates douces ___ Arachides ___ Yamoutsé ___ Viande
___ Foie ___ bonbons ___ Beignets de niébé ___ Manioc ___ Courges
___ Fruits ___ Canne à sucre
___ autre [] []

14. Tchikin bakoye da ya woutché, kwana nawa kouka ba matakou koudin sayé abintchi?

___ jours 8 je ne sais pas /___/

(si la réponse est «0», passer à la question 16)

15. Wané iri abintchi a ka saya da koudin?

___ Foie ___ Viande ___ Fruits ___ Mil ___ soubala ___ Légumes
___ Arachides ___ Huile ___ Feuilles ___ Courges ___ Yamoutsé
___ Tomates ___ Beignets de niébé ___ Autres []
___ je ne sais pas

16. Waké da sabon tchin anta guidan kou?

___ toute la famille ___ ma femme ___ femmes enceintes
___ les enfants ___ moi-même ___ les malades en général
___ ceux qui ont le «doundoumi» ___ femmes allaitantes
___ autres (à préciser)..... []
___ on ne mange pas le foie chez nous (passez à #20)

17. Bakkon da ya woutché, diyan kou, kwana nawa soukayi, sou na tchin anta?

___ jours 8 je ne sais pas /___/

18. Tchikin bakoye da ya woutché, kwana nawa matakkou (ko matankou) ta tchi anta (sounka tchi anta)?

_____ jours 8 je ne sais pas /___/

19. Daga wata nawa kouké fara ba yaro anta?

_____ âge en mois 66 dentition
77 je n'en donne pas 88 je ne sais pas /___/___/

20. Tchikin bakoye da ya woutché, kwana nawa iyalin kou souka tchi ganyé ko haki? (ex. lalo, sûré, tafassa)

_____ jours 8 je ne sais pas /___/

(si la réponse est «0», passez à la question 22)

21. Kaka kouké samin sou?

_____ le jardin de mon mari _____ mon propre jardin
_____ on les a achetés _____ on les a cueillies en brousse
_____ autre (à préciser..... [])

22. A ganin kou akoye abintchin da mata massou tchiki yakkamata sou tchi?

1 Oui 0 Non 3 je ne sais pas /___/
(passez à #24) (passez à #24)

23. Wané iri?

_____ Foie _____ Viande _____ Fruit _____ Mil _____ Lait _____ Légumes
_____ Arachides _____ Oeufs _____ Feuilles _____ Courges _____ Yamoutsé
_____ Bouillie _____ Pâtes _____ Autres []

24. Ga ganin kou akoye abintchin da mata massou ban nono yakkamata sou tchi?

1 Oui 0 Non 3 je ne sais pas /___/
(passez à #26) (passez à #26)

25. Wané iri?

_____ Foie _____ Viande _____ Fruit _____ Mil _____ Lait _____ Légumes
_____ Arachides _____ Oeufs _____ Feuilles _____ Courges _____ Yamoutsé
_____ Bouillie _____ Pâtes _____ Autres []

26. A ganin kou akway abintchi da yara in chékara ^{da}ya zouwa biyou yakkamata sou tchi?

1 Oui 0 Non 3 je ne sais pas / ___ /
(passez à #28) (passez à #28)

27. Wané iri?

___ Foie ___ Viande ___ Fruit ___ Mil ___ Lait ___ Légumes
___ Arachides ___ Oeufs ___ Feuilles ___ Courges ___ Yamoutsé
___ Bouillie ___ Pâtes ___ Autres []

Yanzou mouna tambayoyi bisa tsaré-tsaren tchikin radiyo.

28. Akoye radiyo da kou ké sawraré guida?

1 Oui 0 Non / ___ /

29. Bakkon da ya woutché, koun sawrari radiyo guida ko wani wouri?

1 Oui 0 Non / ___ /
(passez à #32)

30. Kwana nawa kouka sawraré radiyo ga bakwon nan?

___ jours 8 je ne sais pas / ___ /

31. Watché tasha tché kouka sawrara?

___ Radio Niger Niamey ___ Radio Niger Tahoua ___ Radio Nigéria
___ BBC ___ autre ___ je ne sais pas

32. Kwana kin baya koun sawrari chirin daya chahi lahiya ko abintchi?

1 Oui 0 Non / ___ /
(passez à #34)

33. Watché tasha tché ta yi wan nan tsarin?

___ Radio Niger Niamey ___ Radio Niger Tahoua ___ Radio Nigéria
___ BBC ___ autre ___ je ne sais pas

34. Guidan radiyon Tahoua na shirya wassanin koykoyo bissa kiwon lahiya ranar lahhadi da maratché. Koun ta ba sawraran waɗan nan wassanin?

1 Oui 0 Non / ___ /
(passez à #36)

35. Watan da woutché, so nawa kouka sawrari waɗan nan wassanin?

___ fois 8 je ne sais pas / ___ /

36. Mi kouka gané ga wanan wassan?

___ céicité nocturne (doundoumi) ___ la santé
___ jardinage/agriculture ___ manger du foie
___ manger feuilles vertes ___ autre []
___ Vitamine A ___ je ne sais pas

37. Tchikin garin kou, akoye massou wassan koykoyo?

1 Oui 0 Non 3 je ne sais pas / ___ /

38. Soun (ko wassou) taɓa wassa bissa kiwon lahiya ko abinchi?

1 Oui 0 Non 3 je ne sais pas / ___ /
(terminez) (terminez)

39. Koun taɓa ganin irin wannan wassan koykoyo?

1 Oui 0 Non 3 je ne sais pas / ___ /
(terminez) (terminez)

40. So nawa kouka taɓa gani?

___ fois 66 très souvent 88 je ne sais pas / ___ / ___ /

41. Ina so kou gayamini inkounada doukiya, kamal:

1 OUI 0 NON

a) jaki / ___ /
b) amalanké (koura) / ___ /
c) doki / ___ /
d) garka / ___ /
e) moto / ___ /

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ANNEX D

INTERVIEWING GUIDE FOR VILLAGE *ENCADREURS* (ORGANIZERS)

18

Entrevues avec les Encadreurs

Village _____ Date _____ Nom _____
Homme Femme

1. Introduction: expliquer le but de notre visite au village et puis poser des questions concernant ses activités: sa famille, son travail, les champs, les déplacements.

2. Parlez moi un peu de votre sélection en tant qu'encadreur ici. Connaissances particulières; motivation; intéressés; relations particulières avec les villageois; communication; disponibilité.

3. Parlez moi un peu de votre formation en tant qu'encadreur. Comment vous l'avez trouvée? Le moment; le lieu; la durée; le travail des formateurs; les connaissances acquises; les objectifs des activités d'un encadreur; les informations supplémentaires qu'il aurait bien voulu avoir.

4. Relation avec les CVA. la fréquence et qualité du contact? réaction à vos suggestions? Quelque chose à améliorer? participation dans leurs activités.

5. La supervision? Equipe de Niamey? Equipe des formateurs? Fréquence et qualité du contacte.

6. Vos activités en tant qu'encadreur; Planification des activités; utilisation des cartes de conseil; vous les avez reçues à quel moment? Feedback des villageois aux:

cartes de conseil
jeux de rôle
émission de la radio

Détails des activités: fréquence; assistance; réaction des villageois. Suggestions pour améliorer les activités.

7. Niveau de satisfaction par rapport de leur travail

8. Recommandations pour mieux faire le Projet?

9. Description du village

Un dispensaire?

un marché?

une école coranique?

une autre école?

jardins irrigués?

D'autres projets de développement?

Autres éléments particuliers du village?

ANNEX E

INTERVIEWING GUIDE FOR VILLAGE VOLUNTEERS (CVA)

14

Entrevues avec les Membres des CVA (Villages d'animation)

Village _____ Date _____ Nom _____
Homme Femme

1. Introduction: expliquer le but de notre visite au village et puis poser des questions concernant ses activités: sa famille, son travail, les champs, les déplacements.

2. Parlez moi un peu de votre sélection en tant que membre du CVA ici. Connaissances particulières; motivation; intéressés; relations particulières avec les villageois; communication; disponibilité.

3. Parlez moi un peu de votre formation en tant que CVA. Comment vous l'avez trouvée? Le moment; le lieu; la durée; le travail des formateurs; les connaissances acquises; les objectifs des activités d'un CVA; relation avec les autres CVA; les informations supplémentaires qu'il aurait bien voulu avoir.

4. Relation avec l'encadreur. Ou habite-t-il? Qu'est-ce qu'il fait avec votre comité? la fréquence et qualité du contacte? réaction à vos suggestions? Quelque chose à améliorer?

5. La supervision? Equipe de Niamey? Equipe des formateurs? Fréquence et qualité du contacte.

6. Vos activités en tant que CVA. Planification des activités; utilisation des cartes de conseil; vous les avez reçues à quel moment? Feedback des villageois aux:

- cartes de conseil
- jeux de rôle
- émission de la radio

Détails des activités: fréquence; assistance; réaction des villageois.

7. Niveau de satisfaction par rapport de leur travail

8. Recommandations pour mieux faire le Projet?

9. Description du village

Un dispensaire? un marché? une école coranique?
une autre école? jardins irrigués?

d'autre projets de développement?
Autres éléments particuliers du village?

(these questions were printed on three pages for answering)

ANNEX F

**LIST OF PROJECT VILLAGES AND THOSE SURVEYED
IN THE FOLLOW-UP SURVEY**

Liste des Villages Selectionnés NCP/AED

Secteur	Village	Projet	Ecole	Marché/Jardin	DR/PM	A.V.	Encadreur de Projet	Accès	Pop. 88	Pop. 93
MADAOUA	Bakin Zongo	X					X	X	2291	2703
	Tounfati A	X		X		X	X	X	3668	4328
Arzérori	Arzérori A	X	X	X	X		X	laté.	3578	4222
Baagui	Baagui A	X	X	X	X	X	X	laté	3169	3739
Chigulyo	Chigulyo S	X	X	X		X	X	X	2288	2695
	Doukouna A	X		X			X	X	2332	2751
	Tallemout A	X	X	X			X	X	2510	2961
Eroufa	Eroufa A	X	X	X		X	X	Laté.	3544	4181
	Kababi A	X	X	X		X	X	Laté.	4122	4863
Galra	Koudawatché S	X	X	X		X	X	piste	2056	2426
	Malindo S	X	X	X		X	X	piste	1683	1965
	Malwatane S	X	X			X	X	X	1834	2164
Jalata	Joleka S	X	X	X		X	X	Laté.	1716	2024
Koumassa	Koumassa S	X	X	X		X	X	Laté.	1931	2278
Magaria	Campement II S	X	X	X		X	X	Goucror	1818	2145
	Guidan Takera S	X		X		X	X	Goucror	1899	2240
Sabon Guida	Sabon guida A	X	X	X	X	X	X	Laté.	3994	4712
Tambeye	Tambeye Sejen. A	X	X	X		X	X	X	2301	2715
	Tambey Hornado S	X	X			X	X	X	1377	2214
Magaria	Aréwa S	X	X	X		X	X	Goucror	1530	1805
									50141	59155

A = Animation

S = sensibilisation

Liste des Villages Selectionnés NCP/AED

Secteur	Village	Projet Ecole	Marché/Jardin	DR/PM	A.V.	encadreur de Projet	Accès	Pop. 80	Pop. 93
BOUZA	Sambouliassou A	X	X			X		2743	3072
	Djibalié S	X	X	X			X	3135	3511
	Tana A	X	X	X		X		3520	3942
	Yagalama A	X	X	X		X		3182	3563
	Koungouptché A	X	X			X		2535	2839
	Loubé A	X	X			X		2274	2546
	Tasolaki A		X	X	X	X		2079	2328
	Bazari Katari A	X	X	X			X	2963	3318
	Ladarra S	X	X	X		X		2365	2648
	Madella N S	X	X	X				2092	2343
	Allikei Gabaso A		X	X		X		2073	2281
	Assoudé S	X		X		X		2025	2268
	Tsaldé A	X	X	X		X		2720	3046
	Tchequm S	X	X					2529	2832
	Tadoulé S	X	X	X				1802	2018
	Maissasag S	X	X					1646	1343
	Taourare S	X	X					2868	3212

Dama Idis

Jankadari's

Kya wone A

A = Animation

S = Sensibilisation

Liste des Villages Selectionnés NCP/AED

Secteur	Village	Projet	Ecole	Marché/Jardin	DR/PM	A.V.	Encadreur de Projet	Accès	Pop. 88	Pop. 93
	Illéla	A	X	X			X	X	2892	3296
st-survey	Azaou	S	X	X			X	X	1723	1964
st-survey	Badaguchiri	A	X	X			X	X	4673	5555
	Kacoua Abdou	A	X	X			X	X	3236	3757
	Dindé	S	X	X			X		2415	2753
t-survey	Roulozoum	S	X	X			X	X	2521	2651
st-survey	Yama	A	X	X			X	X	3379	3652
	Touboull	S	X	X			X		3992	4550
st-survey	Sirria	S	X	X			X		268	3284
	Houjia	S	X	X			X	X	2332	2316
t-survey	Dabrou	A	X	X			X	X	4944	5636
t-survey	Zorare	S	X	X			X		3121	3557
	Tajaé seden.	BA	X	X	X		X	X	3586	4089
	Faska	S	X	X			X	X	2297	2613
st-survey	Toulou	A	X	X			X	X	2836	3233
st-survey	Echissara	S	X	X			X	X	2226	2537
	Dangona	A	X	X	X		X	X	2303	2625
	Fajjia Sembo	S	X	X			X		1922	2191
t-survey	Djinguiriss	A	X	X				X	1994	2273
	Bagaroua	A		X	X	X		X	4262	4891
									59495	67817

A = Animation

S = Sensibilisation

Liste des Villages Selectionnés NCP/AED

Secteur	Village	Projet	Ecole	Marché/Jardin	DR/PM	A.V.	Exécuteur de Projet	Accès	Pop. 08	Pop. 93
Post-survey	Birni NKanni	I S	X	X		X	X	X	3377	3984
Post-survey	I Saouna Gama	S	X	X				X	2120	2501
	I Mal Folia	S	X				X	X	2004	2364
	I Zengé Aroki	A						X	405	477
Post-survey	I Kacou	S	X				X	X	1300	1534
	I Kadé Badé	S	X	X				X	1413	1667
Post-survey	Bazga	S	X	X		X	X	X	2070	2442
	Fari	A	X	X				X	1110	1309
Post-survey	I Ambouta	A	X	X				X	1141	1345
Post-survey	I Doguéroua	S	X	X	X			X	3794	4476
	I Balaya	A	X	X				X	1163	1372
Post-survey	I Ta'ae	A		X				X	2172	2562
	I Guidar Bahago	A	X	X				X	1656	1954
Post-survey	I L'uhoudou	A		X				X	1849	2131
	I Tourou Adera	A	X					X	597	704
Post-survey	Dourkouda	A		X				X	970	1144
	I F'oura Allasar	S	X	X			X	X	1297	1530
Post-survey	I Guidan Ider	A	X	X	X	X		X	4729	5530
	I Zourbatta	S	X	X				X	1128	1331
	I Tsunga Yacouba	S						X	656	1010
									35151	41468

A = animation (DRAMA)

S = sensibilisation (NO-DRAMA)

I = phase I

B