BASICS
TRIP REPORT

Senegal:
Health Facility Survey on
Diarrhea Case Management

BASICS is a USAID-Financed Project Administered by The Partnership for Child Health Care, Inc.:

Academy for Educational Development (AED)
John Snow, Inc., (JSI)
Management Sciences for Health (MSH)
1600 Wilson Blvd., Suite 300, Arlington, VA, 22209

USAID

SENEGAL
Health Facility Survey on Diarrhea Case Management

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Jane Lucas, Ph.D.

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ACKNOWLEDGEMENTS

The central activity of this trip, the health facility survey, could not have been completed without the extraordinary contributions of everyone involved with its implementation. The surveyors and their supervisors worked long days to learn the required skills and took great care to gather high quality data. These individuals will be key to implementing programs to improve the case management of diarrhea in their areas of responsibility in the health system.

The director of SANAS in the Ministry of Health, Amadou Mbaye, encouraged the survey, loaned several staff members to the activity, and was present for key training and other events to demonstrate his interest in the work. This productive relationship with Mr. Mbaye will be valuable as plans for future efforts in the four target regions are developed.

The BASICS country advisor, Mamadou Sène, and his staff handled the many details of making administrative arrangements, producing materials, gathering supplies, and solving problems; Mr. Sène and his staff provided superb support for all aspects of the training and field activities. The other members of the training staff, Serge Mononcourt and Bernard Diop, learned the survey activities well under tight deadlines, achieved a high level of skill, and demonstrated cooperative spirit in sharing training responsibilities. Patrick Kelly of the BASICS staff managed this very complex project behind the scenes in Washington and on site throughout the preparation and training activities. He pulled together all the people and materials necessary to get this survey off the ground, and he will stay with the project until its completion. His management skills and leadership enabled a group of strangers to work together as a highly effective team.

Finally, thanks are also given for the efforts and encouragement of Jennifer Bryce and others at the World Health Organization, who supplied the latest version of the health facility survey methodology, used for the first time in this survey.

ACRONYMS

BASICS	Basic Support for Institutionalizing Child Services
BRAN	Regional Food and Nutrition Office
CDD	Control of Diarrheal Diseases
CHU	Hospital-University Center
HFS	Health Facility Survey
MOH	Ministry of Health
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PRITECH	Technologies for Primary Health
SANAS	Food and Applied Nutrition Service of Senegal
SSP	Primary Health Care (PHC)
SSS	Sugar-Salt-Solution
TSS	Superior Health Technician
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

EXECUTIVE SUMMARY

Purpose

The purpose of the trip was to participate in the health facility survey of diarrhea case management conducted in four regions targeted for USAID-supported child survival programs in Senegal. The following were the objectives of the survey, developed by the World Health Organization (WHO):

- Describe case management practices of health workers in 61 health facilities (hospitals, health centers, and health posts) in four regions: Fatick, Kaolack, Louga, and Ziguinchor.
- Detect and describe problems within the health facilities that may impede good case management practices.

Activities

Major activities included the following:

- Preparing for the survey, and helping the training team learn the survey procedures and their training activities;
- Training surveyors;
- Supervising survey teams during the first week of data collection; and
- Preparing for data analysis activities.

Recommendations

The following recommendations are drawn from these activities:

1. BASICS should continue to use the health facility survey method to gather reliable data on practices and conditions in the field and, wherever possible, to train local supervisors as surveyors.

2. BASICS should provide adequate resources to ensure the success of future surveys (e.g., sufficient preparation for survey activities, experienced training staff, strong support from the local BASICS office, adequate classroom facilities and practical training sites).

3. BASICS should work with WHO to finalize the French language version of the survey forms and the instruction manual.

4. The survey results should be applied immediately to the development of the Senegal country plan, to identify, in particular, appropriate training, communication activities, and other program interventions.

5. The survey results should be distributed through appropriate media to all levels of the Ministry of Health and to collaborating agencies who work in Senegal's health sector.

I. PURPOSE OF THE TRIP

The purpose of the trip was to prepare for the Senegal health facility survey of diarrhea case management, train surveyors, supervise the first week of data collection, and prepare for data analysis activities. The following were the objectives of the health facility survey:

- Describe case management practices of health workers in 61 health facilities (hospitals, health centers, and health posts) in four regions of Senegal: Fatick, Kaolack, Louga, and Ziguinchor.

- Detect and describe problems within the health facilities that may impede good case management.

The results can help focus interventions by BASICS and the Ministry of Health to improve child survival in the four regions targeted for USAID-supported health programs. The results also provide a description of baseline conditions, against which progress may be measured by future surveys.

The method, developed by WHO, employs several techniques to survey health facilities: an observation of health worker case management, an examination of the same case by a surveyor (to serve as the standard), an interview with the caretaker regarding her knowledge of home child care, an interview with the health worker regarding his/her knowledge of both diarrhea case management and the barriers faced in caring for children, a review of the facility and its supplies, and a review of case records. (A more detailed description of survey activities can be found in the WHO *Health Facility Survey Manual: Diarrhoea Case Management,* July 1994.) This is the first survey to employ the 1994 survey methodology. BASICS translated the survey forms and the manual into French for use in Senegal.

Twenty-one persons participated in the survey activities, including twelve surveyors (regional and district MOH supervisors), two alternate surveyors (SANAS/MOH staff), two supervisors (SANAS/MOH staff), a survey manager (Mamadou Sène, BASICS/Senegal country advisor), the clinical instructor (Bernard Diop, BASICS/Senegal consultant), the survey coordinator (Serge Mononcourt, EpiCentre, Paris, BASICS consultant), the project coordinator (Patrick Kelly, BASICS/Washington), and the training consultant (the writer). (See the list of participants in Appendix A.) Because all of the surveyors supervise health workers in the four target regions, they are well-positioned for improving health services. Therefore, the survey planners anticipated a possible secondary gain from strengthening this network of supervisors who may play key roles in future activities.

II. TRIP ACTIVITIES: HEALTH FACILITY SURVEY

BASICS, in collaboration with SANAS of the Ministry of Health, planned the following survey schedule:

Survey preparation:	August 15-26	(2 weeks)
Survey training:	August 29-September 3	(1 week)
Data collection:	September 5-16	(2 weeks)
Data analysis:	September 19-30	(2 weeks)

The writer was available for three days of the survey preparation, the survey training, and four days in the field to help supervise the initial data collection.

A. Survey Preparation

During the week prior to the writer's arrival, Patrick Kelly and Serge Mononcourt met with local BASICS staff, including Mamadou Sène and Adama Koné (regional advisor), the local consultant Bernard Diop, and the staff of SANAS (Director Amadou Mbaye, Abdoulaye Samb, and Léonard Coly). They selected the facilities for the survey sample, prepared the schedule, made administrative and logistical arrangements, identified and prepared training sites, and adapted the survey forms to fit national policies and specific survey objectives. When the writer arrived, these preparations were reviewed, and the survey plans finalized. Using the training activities described in the survey manual, the staff identified roles and responsibilities for training surveyors, finalized the training schedule, and prepared for classroom training and practical exercises.

B. Survey Training

The surveyors gathered at the BASICS office in Dakar for training (see the schedule in Appendix B). The training consisted of four days of classroom exercises and two days of practice with cases in three local health centers. The objective was for surveyors and supervisors to perform all survey tasks, including using the survey forms and managing the flow of patients and survey activities at health facilities.

Surveyors practiced the tasks described in the survey manual in order to increase reliability, reduce errors, and increase the efficiency of the work of each of the six survey teams. To test their inter-surveyor reliability, the surveyors assessed eight cases together as a group in one health center and practiced a second day in two other facilities. Estimates of reliability indicated that surveyors achieved 90 percent agreement in three key survey tasks: assessing children with diarrhea, observing health workers as they manage diarrhea cases, and interviewing health workers. This level of agreement was sought during training because it was assumed that reliability would likely drop when teams separated for field activities. (Supervisors also checked reliability during the first few days of data collection. This identified the tasks that needed to be reinforced in the field and during team meetings.)

As a result of their experience with the forms, the surveyors developed additional rules to ensure greater reliability. Further adaptations were made to four of the five forms in order to make them more consistent with national policies and local conditions. For example, the forms were adapted to evaluate the use of the recommended sugar-salt-solution (SSS) for the prevention of dehydration and home treatment. The forms were also adapted to determine the availability and evaluate the use of antibiotics recommended for the treatment of blood in stools with fever, and antiparasitic drugs for the treatment of blood in stools without fever.

On the last day of training the supervisors led team meetings to practice some of the supervisory skills needed in the field. These included checking survey forms as well as identifying appropriate feedback on case management practices and appropriate methods to give feedback to facility staff at the end of each visit.

The training team (survey coordinator, clinical instructor, survey manager, project coordinator, and training consultant) met at the end of each day to identify difficulties encountered, evaluate progress and plan for the next day and for data collection activities. The team also prepared the revised survey forms, obtained administrative approvals, and gathered supplies for surveyors to use in the field.

C. Data Collection

Data collection was scheduled for September 5 through September 16, 1994. During the first week, supervisors Bernard Diop and Léonard Coly led three teams south to the region of Ziguinchor to survey one hospital, three health centers, and ten health posts. Supervisors Serge Mononcourt, Abdoulaye Samb, and the writer led three other teams north to Louga to survey one hospital, five health centers, and ten health posts. During the second week, three teams will survey facilities in Fatick and three teams will go to Kaolack. A total of 61 facilities will be surveyed in the two weeks, including a 100 percent sampling of hospitals (3) and health centers (18), and a pre-selected sample of health posts (40).

The writer participated in the first four days of data collection activities and visited four facilities (two health centers and two health posts). At each health facility, surveyors observed health workers managing up to six or seven cases, interviewed their caretakers, and independently assessed each case. Surveyors interviewed one to three health workers at each facility, usually nurses or health technicians.

The observed quality of case management varied. The oral rehydration salts (ORS) solution was not given to children, except as inpatients, and it was unavailable in two of the four facilities. Furthermore, the policy of recommending SSS to prevent dehydration appears to have undermined the importance of using ORS to treat dehydration, both in the minds of mothers and health workers. However, many mothers knew some pieces of critical information on home treatment, such as how to prepare SSS correctly, and at least one sign indicating when to bring the child back to the health worker. Most mothers said that they learned this information from their health worker.

Many diarrhea cases presenting at the facilities also had signs of moderate or severe malnutrition. Inpatient treatment for malnutrition was not available, and feeding instructions were frequently missing from the health worker's home care advice.

The surveyors also assessed the facilities and found no oral rehydration therapy (ORT) corners. Some facilities had adequate supplies of antibiotics for the treatment of dysentery; others had none in stock. Patient registers significantly under-reported the incidence of diarrheal diseases, and thus the registers are not a reliable source to identify needs for ORS, antibiotics and other interventions to improve the case management of diarrhea. Also, because ORS is distributed without cost, stock records were not maintained in the facilities visited. As a result, there is no adequate way to maintain a continual system of replenishing stocks. As expected, the facilities and supplies at remote health posts were the most inadequate in all these areas.

The three teams in Louga saw an average of three diarrhea patients per facility. However, they found that a few facilities had no diarrhea cases; based on a prior agreement, surveyors interviewed one or two mothers at these facilities to identify what they knew about treating diarrhea and where they had learned this information. (Data from these interviews will be kept separate from those of diarrhea cases.) Although two health posts were closed on the day of the survey, the surveyors were able to substitute other facilities in the sample, and the survey was not disrupted.

In the first few days, most surveyors were able to complete all survey activities. Workdays were sometimes long because the surveyors waited for health workers to finish consultations before they could interview them. Some surveyors needed closer supervision than others, and during this supervision the training was reinforced. Supervisors observed and checked survey forms at the health facility as needed, and checked all forms at the end of each day. Any problems identified were presented and corrected at the daily team meetings. Some errors were found in completed the forms (e.g., items left blank); other problems arose from conditions in the field (e.g., what to do when surveyors encounter the diagnosis of infectious diarrhea, which was not anticipated on the form). After the third day in the field, these decisions were shared with the teams in Ziguinchor in order to maintain consistent practices among surveyors in the two locations.

D. Preparation for Data Analysis

The survey results can be hand analyzed using the tally sheets and instructions provided in the survey manual. It is recommended that surveyors, who have had experience collecting the data and seeing conditions in the field, participate in analyzing the results. Therefore, surveyors were invited to volunteer for an additional week to tally and analyze the data, and to draft sections of the report. Six to eight volunteers will be selected. Afterwards, the survey coordinator will edit and finalize the report.

Before the surveyors left for field activities, the tally sheets were checked, and minor changes were made before the sheets were reproduced. Serge Mononcourt and Bernard Diop, who will be responsible for coordinating the data analysis activities, practiced completing the tally sheets. The

writer reviewed the steps described in the manual for leading the group through calculating program indicators, displaying, analyzing, and interpreting the results, and drafting conclusions and recommendations. (The writer would not be available when the group returned to the BASICS office in Dakar for this activity.)

Finally, Bernard Diop and Patrick Kelly developed a data entry program using EpiInfo. Although the program will not be ready to use for this initial report, it can be helpful for additional analyses in the final report.

III. RESULTS AND CONCLUSIONS

The survey results and a full discussion of their importance for strengthening the case management of diarrheal diseases in Senegal will be presented in the survey report. This section provides preliminary conclusions based on this experience with the health facility survey methodology, and ideas about how the results of this survey might be used.

1. The survey requires a variety of complex skills, including observation, interviewing, and recording skills. Surveyors were able to learn these skills before starting data collection and, under close supervision, strengthened these skills during the first few days in the field. Therefore, comparable participants in other countries would probably be able to conduct this relatively complex and sophisticated survey, especially if their trainers had participated in previous surveys. Furthermore, the surveyors gained many skills for examining case management more closely and identifying the factors that affect practices. These skills, and the participants' key positions as health care supervisors, should help the participants to plan and implement interventions in their areas.

2. The large group (21, including staff) and the large number of relatively dispersed facilities in the sample required additional resources to ensure the survey's success. Training was conducted over six days rather than the minimally recommended five days. The classroom facilities at the BASICS office were very good, and the health facilities selected for practical training saw sufficient diarrhea cases for surveyors to get the needed practice. Three facilitators (rather than the usual one or two) were available full-time to share training tasks. In addition, two others (Patrick Kelly and Mamadou Sène) and the BASICS staff managed administrative and logistical matters to ensure that training and other activities could continue without disruption. The importance of the excellent administrative support cannot be overstated; the BASICS country advisor and his staff quietly and effectively completed the many tasks that supported this complex project, permitting trainers to concentrate more fully on training and other survey tasks. The availability of these resources in future surveys would help ensure their success.

   Surveyors might have started data collection more confidently if they had a third practical session in a health facility. This third day could have helped them organize their individually

learned skills into the flow of activities to be completed by the survey team at a facility. For future surveys, therefore, it would be helpful to anticipate a possible third practice day.

3. The French translation of the instruction and training manual was essential; the survey could not have been completed if only the survey forms had been translated. Therefore, the extraordinary effort by Patrick Kelly and the translator, who together completed these materials under such a short deadline, was worthwhile. Furthermore, the high quality of the translation contributed to a more efficient use of the short training period. It is hoped that the manual can be finalized before another survey in French is conducted.

4. The survey is a rich source of information on the quality of case management and the many factors that affect case management in health facilities; the first four days in the field confirmed the importance of this resource. Even the surveyors, who are supervisors in the health system, were surprised to learn that ORS sachets were frequently not available and that there were no functioning ORT corners in the facilities visited. (The WHO-established diarrhea training unit at the Roi Baudouin health center, used as a practical training site, also did not have an active ORT corner.)

The survey produces globally recognized WHO/UNICEF indicators of the quality of case management, as well as other measures of the condition of health services. It is likely that the quality of case management will be found to be quite poor in general, especially where health workers have not been trained, facilities are inadequate, and the system for maintaining ORS and antibiotics supplies has broken down. In addition to the case management indicators, the survey will provide reliable data for producing more focused plans for training, communication activities, and other interventions in Senegal. Specific examples of potentially useful results include:

a. A compilation of assessment and treatment tasks which are most often performed inadequately, and a list of which patients suffer from current practices (e.g., according to degree of dehydration, type of dysentery).

b. The areas of knowledge affecting the case management practices of health workers which are found to be most inadequate.

c. A determination of whether ORT corners are functioning anywhere, and determination of what prevents their use (e.g., lack of ORS and other supplies, inadequate space, not considered a priority in supervisory meetings or visits, lack of acceptance of ORS); and a determination of what would be necessary to activate the ORT corners, particularly in health centers and health posts, and the level of input that might be required.

d. A determination of whether a pattern can be found in the distribution of ORS and the antibiotics used in the treatment of dysentery (e.g., type of facility, distance from regional centers, level of supervision).

e. The extent to which mothers and other caretakers rely directly on health workers and other sources for their information on how to treat diarrhea; the areas of their knowledge that need reinforcement; the frequency of health education programs provided by health facilities; and the availability of flip-charts (produced and distributed by the USAID-funded PRITECH project) for teaching mothers about diarrhea.

f. The percentage of the health facilities staff who have been adequately trained in the case management of diarrhea; the percentage needing basic training or reviews and updates; an assessment of whether the training received is related to what the health workers know about managing cases.

g. A rough estimate of the level of under-reporting of cases, determined by comparing the number of diarrhea cases seen per facility on the survey day with the average number of cases per day listed in the register and noted in the record review.

5. In addition to providing data to focus planning activities, the survey results should be shared with all levels of the Ministry of Health, including central decision makers, regional directors, district officers, and health facility staff, and with organizations working in Senegal, such as other USAID child survival projects, the World Health Organization, UNICEF, and other non-US bilateral agencies. Some strategies for sharing the results, described in the survey manual, include:

a. A formal debriefing for senior ministry officials and collaborating agencies.

b. A short summary report for distribution to health officials.

c. A flyer or newsletter with key findings and their implications for training, supervision, and other activities for health officials and health training institutions.

IV. RECOMMENDATIONS

The following recommendations are drawn from the five sets of conclusions above:

1. BASICS should continue to use the health facility survey method to gather reliable data on practices and conditions in the field and, wherever possible, to train local supervisors as surveyors.

2. BASICS should provide adequate resources to ensure the success of future surveys (e.g., sufficient preparation for survey activities, experienced training staff, strong support from the local BASICS office, adequate classroom facilities and practical training sites).

3. BASICS should work with WHO to finalize the French language version of the survey forms and the instructional manual.

4. The survey results should be applied immediately to the development of the Senegal country plan to identify, in particular, appropriate training, communication activities, and other program interventions.

5. The survey results should be distributed through appropriate media to all levels of the Ministry of Health and to collaborating agencies who work in Senegal's health sector.

APPENDICES

APPENDIX A

APPENDIX A
Contacts: Survey Participants and Others

Surveyors:

Saboye DIAGNE
Health Education
Kaolack

Gérard DIONE
TSS Regional Office of
Food and Nutrition (BRAN)
Fatick

Atabou MANÉ
District Supervisor, SSP
Bignona

Lamine MANGANE
Sub-officer, Hygiene Service
CS Sokone

Bachirou NDIAYE
Regional Supervisor, SSP
Fatick

Lamine NDIAYE
Director, Regional Office of Food
and Nutrition (BRAN)
Louga

Seynabou NDIAYE BA
TSS Regional Office of
Food and Nutrition (BRAN)
Ziguinchor

Mbaye SALL
Health Education
Kaolack

Malamine SARR
TSS Regional Office of Food and
Nutrition (BRAN)
Kaolack

Abdou SÈNE
TSS Regional Supervisor
Ziguinchor

Momath SOCE
SSP Supervisor
Louga

Ibrahima TOURE
TSS Supervisor SSP/CDD
Kébémer

Alternates:

Khady Wade NDIAYE
TSS SANAS
Dakar

Houlèye TOBE
Health Worker SANAS
Dakar

Supervisors and Survey Staff:

Léonard COLY
SANAS Staff
Dakar

Bernard M. DIOP
Internal Medicine, CHU Fann
Dakar

Patrick KELLY
BASICS Staff
Washington

Jane LUCAS
BASICS Consultant
New York

Serge MONONCOURT
BASICS Consultant
EpiCentre, Paris

Abdoulaye SAMB
SANAS Staff
Dakar

Mamadou SÈNE
BASICS Senegal Staff
Dakar

Other Contacts:

In addition to survey participants, staff met—

Bill EMMETT
Chief of Party
Child Survival and Family
Planning Project
Dakar

Charles DeBOSE
Health, Population, and
Nutrition Officer
USAID Dakar

Adama KONE
BASICS Regional Director
Dakar

Amadou MBAYE
Director
SANAS, Ministry of Health
Dakar

APPENDIX B

Appendix B.
Training Schedule

Dakar, du 29 août au 3 septembre 1994

Programme

Lundi 29 août:

9h00 - 9h30	Accueil des participants Ouverture officielle
9h30 - 10h00	Présentation générale de l'enquête sur la prise en charge des cas de diarrhée
10h15 - 10h30	Pause
10h30 - 11h00	Modalités admistratives Objectifs de la formation - Calendrier
11h00 - 11h30	Révision de la prise en charge des cas de diarrhée
11h30 - 13h30	Questionnaire n° 1, Prise en charge d'un enfant diarrhéique, Instructions d'utilisation
13h30 - 14h30	Déjeuner
14h30 - 15h00	Questionnaire n°1 (suite)
15h00 - 16h00	Questionnaire n° 2, Interview de la mère et examen de l'enfant par l'enquêteur
16h00 - 16h30	Préparation pour la visite au CS Gaspard Kamara

Mardi 30 août:

8h30 - 13h30	Visite au Centre de Santé Gaspard Kamara Exercices pratiques Questionnaires n° 1 et 2, Validité du remplissage
13h30 - 14h30	Déjeuner
14h30 - 16h30	Discussion et synthèse

8h30 - 10h00 Questionnaire n° 3. Entretien avec le personnel de santé

10h00 - 10h15 Pause

10h15 - 12h00 Questionnaire n° 4, Evaluation des locaux et fournitures

12h00 - 13h30 Questionnaire n° 5, Examen des dossiers cliniques

13h30 - 14h30 Déjeuner

14h30 - 15h00 Fournitures de l'enquêteur,
Organigramme des activités de l'enquête

15h00 - 16h00 Rétro-information au personnel de santé
Réunions de revue des questionnaires remplis

16h00 - 16h30 Préparation pour la visite au CS Guediawaye et au CS Philippe Senghor

Jeudi 1er septembre:

8h30 - 13h30 Visite aux formations sanitaires, exercices pratiques
Groupe 1: visite au centre de santé Guediawaye
Groupe 2: visite au centre de santé Philippe Senghor

13h30 - 14h30 Déjeuner

14h30 - 16h30 Discussion et synthèse

Vendredi 2 septembre:

8h30 - 10h15 Réunions par groupe, liste de contrôle de l'enquêteur

10h15 - 10h30 Pause

10h30 - 13h30 Exercices pratiques sur les questionnaires

13h30 - 14h30 Déjeuner

14h30 - 16h30 Exercices pratiques sur les questionnaires

15

8h30 - 10h15 Feuilles de pointage des données

10h15 - 10h30 Pause

10h30 - 13h30 Séance de révision

13h30 - 14h30 Déjeuner

14h30 - 15h30 Formalités admistratives
Calendrier de l'enquête

15h30 - 16h00 Clôture de la formation