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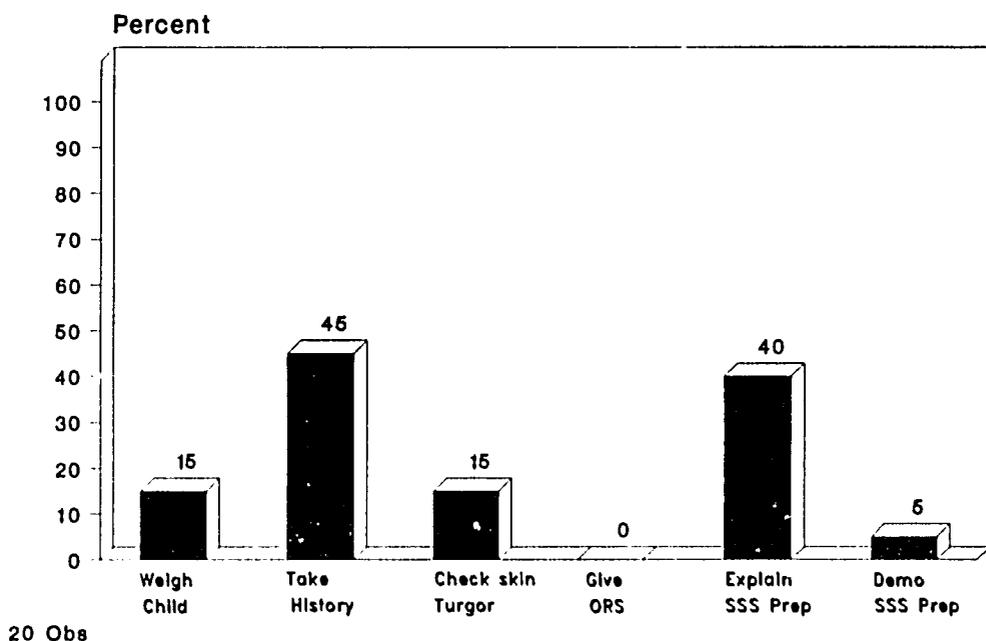
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FACILITY ASSESSMENT SURVEY PANKSHIN

Case Management of Diarrhoea Health Worker Practices



1991

Conducted by:
Pankshin Local Government Health Department
Plateau State, Nigeria

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SUMMARY OF FINDINGS

The Pankshin Facility Assessment Survey provides a summary of key health worker practices related to immunization and the case management of sick children, and provides information on the availability of equipment and supplies necessary to perform basic PHC tasks. The following summary highlights key observations made during the survey:

- Despite the availability of functional weighing scales in most health facilities, few health workers routinely weigh sick children. Growth monitoring using charts is generally done for immunized children only. Failure to routinely monitor the growth/nutritional status of children and to check immunization status (both for children and mothers) constitute missed opportunities.
- Immunization technique among health workers in Pankshin was generally very good. Sterile needles and syringes were used to administer immunizations, and the correct dose of each antigen was given at the correct site. Most health workers recorded the date on which the immunization was given on the child's card.
- Functional equipment and supplies, along with adequate cold chain maintenance, are critical for ensuring vaccine potency. In Pankshin, further efforts are required to ensure the availability of thermometers and temperature charts. Health workers must be encouraged to monitor the temperature of all refrigeration units on a daily basis.
- Health worker skills in assessing dehydration due to diarrhoea and correct case management technique need strengthening. Few children with diarrhoea were weighed, only half had their skin turgor checked, and few received any form of oral rehydration therapy.
- Case management skills for assessing and treating children with fever need improvement. None of the children with fever had their temperature taken with a thermometer. While the majority of children with fever received some form of chloroquine, over half received an injection.
- Patient education practices among health workers in Pankshin are generally poor. Many mothers were not advised about the need to complete the immunization series, and management of reactions to vaccines was often not explained. Fewer than half of the mothers of children with fever received instructions on how to administer the antimalarial medicine they were given. Very few mothers were either shown how to prepare SSS or asked to actually demonstrate SSS preparation themselves.
- There is a need for training to improve clinical and management/supervisory skills among LGA PHC Managers and facility level health workers.

1 BACKGROUND

Pankshin Local Government, situated in the north central part of Plateau State, covers an area of 2,334 sq km and has an estimated population of 168,718 (1991 census). The LGA headquarters is about 120 km from Jos, the state capital. There are several hundred villages in Pankshin, grouped into six health districts. The population is heterogeneous, with major dialects including Angas, Chip, Fier, Mopun and Kadun. Since Pankshin is located in the Plateau highlands, the climate is temperate and the terrain very hilly.

Pankshin became a "Willing" PHC Model LGA in 1988. Although FMOH seed money has not yet been made available, some progress has been made towards PHC implementation. Following Federal Ministry of Health guidelines, baseline data has been collected and a situation analysis completed. PHC Committees have been formed at the LGA and district levels, and formation of Village Health Committees is in progress.

Within the LGA Health Department, Primary Health Care is divided into five sections: 1) Immunization/Diarrhoeal Disease Control, 2) Essential Drugs, 3) Maternal and Child Health/Nutrition, 4) Health Education/Women in Health, and 5) Monitoring and Evaluation. Each section is headed by an Assistant PHC Coordinator, with overall technical direction and support provided by the LGA PHC Coordinator. Most of the six health districts in Pankshin have a District Supervisor who coordinates health activities within the district and reports to the LGA PHC Coordinator.

There are two state-owned hospitals in Pankshin: Pankshin General Hospital and Cottage Hospital in Jing. The School of Health Technology located in Pankshin is operated by the State Ministry of Health. There are ten government health clinics/health centres in Pankshin, along with approximately twenty dispensaries and sixteen privately owned health facilities.

Government health facilities are staffed by various cadres of community health workers, including Community Health Officers/Supervisors, Senior and Junior Community Health Extension Workers, nurses, midwives and environmental health officers. In addition, Village Health Workers (VHW) and Traditional Birth Attendants (TBA) have been trained to provide basic Primary Health Care services in some villages throughout the LGA.

Since mid-1991, the Combatting Childhood Communicable Diseases (CCCD) Project has provided support for Primary Health Care implementation in Pankshin. Major activities supported by CCCD include:

- technical and management/supervisory skills training for PHC program managers and supervisors
- continuing education for facility-based PHC workers, village health workers (VHW), and traditional birth attendants (TBA)

- **PHC orientation for LGA government officials and district and village health committee members**
- **strengthening/establishment of ORT units and corners**
- **clinical training on case management of diarrhoea**
- **establishment of PHC library at LGA Health Department**

2 OBJECTIVES

The Pankshin Facility Assessment Survey was conducted primarily to obtain information about case management and education practices among health workers in the Local Government. Special emphasis was placed on obtaining information about immunization and diarrhoea/fever case management and the availability of necessary equipment and supplies.

Specific objectives of the Facility Assessment Survey included:

- 1) to describe health worker skills in the assessment and case management of sick children under five years of age, with particular emphasis on diarrhoea and fever case management**
- 2) to assess immunization technique and cold chain maintenance at health facilities**
- 3) to identify missed opportunities for immunizing women and children**
- 4) to describe patient/mother education practices among health workers**
- 5) to document the availability of equipment/supplies and selected essential drugs at health facilities, with emphasis on malaria diagnostic equipment and supplies**
- 6) to describe management and supervisory skills among health workers and their supervisors**
- 7) to identify logistical factors which may hinder the delivery of quality health services to children under five years**

3 METHODS

Sample: The assessment was conducted at eight government Primary Health Care facilities in Pankshin. These PHC facilities include Pankshin General Hospital, Rural Health Centre, Basic Health Clinic, and five Maternal and Child Health (MCH) Clinics. Dispensaries, smaller outposts that do not provide immunization services, were not included in the Facility Assessment.

Survey Instrument: Instruments used in the facility assessment included (Appendix A):

- observation checklists for the case management of sick children and immunization
- exit interviews with mothers of sick children and children receiving immunization
- equipment/supply inventory
- questionnaires for interviews with health workers and their supervisors

A detailed malaria diagnostic equipment/supply inventory was also carried out (Appendix B).

Survey Participants: LGA Government officials and Primary Health Care Department staff provided logistics and technical support for the Assessment. Survey participants were recruited from Pankshin Local Government and the Continuing Education Unit at Plateau State Ministry of Health (Appendix C). Three interviewer teams of four persons each (three interviewers and one team coordinator) were formed. At least one member of each team spoke Hausa and one member spoke the dialect(s) commonly used in the areas where participating facility were located.

Survey participants were trained for five days on questionnaire content and survey methods. Training included an overview of survey goals and objectives and technical issues related to immunization and diarrhoea/fever case management. Each survey instrument was carefully reviewed to clarify the purpose of each item and how it was defined. Role plays with exit interview forms were conducted to reach consensus on correct language translation into Hausa and/or the area-specific local dialect. Two supervised field exercises were carried out at clinics near the Pankshin PHC Secretariat. Special meetings were conducted with team coordinators to review specific management responsibilities.

Data collection: A schedule of team visits to each facility was created in advance. Arrangements were made to ensure that vaccines were available at health facilities on the day of the survey, to allow observation of immunization technique among health workers. On the

morning of the survey, teams arrived at the facility well before the clinic opened for service, so that sterilization procedures could be observed. Upon arrival, the team coordinator introduced the general purpose of the survey to the head of the facility and explained methods that would be used. A brief tour was conducted to determine where services are provided, and to decide where interviewers should sit and where exit interviews should be conducted.

Mothers of children for whom an observation checklist was completed were given an identification card to present at the exit interview table. At the exit interview table, mothers of children with diarrhoea were asked to prepare sugar-salt solution. Observations and interviews continued in this fashion until five children with diarrhoea, five children with fever (as primary symptom), five children with acute respiratory infection (ARI, as defined by the health worker), and five children being immunized had been observed. Multiple observations on sick children presenting with more than one complaint were allowed.

Equipment/supply inventories and interviews with health workers (and supervisors, whenever available) were conducted by the team coordinator either after service hours or during a break in service delivery. While data were collected, team coordinators checked periodically for accuracy and completion. Validation observations on at least one mother/child in each program area (immunization, diarrhoea, and fever) were conducted.

Data analysis: Data were manually abstracted into tables and tabulated by LGA health department personnel and survey interviewers, with technical support from CCCD staff.

4 MAJOR FINDINGS

The eight PHC facilities included in the Pankshin Facility Assessment Survey are listed in Table 1. Both rural health centres and basic health clinics should provide comprehensive primary health care services including immunization, oral rehydration therapy, and family planning. While both types of facilities have in-patient capability, the number of beds may be greater in health clinics. Maternal and child health (MCH) clinics provide health services for women and children only, with no provision for overnight stay.

As shown in Table 2, eight facility health workers were observed during the survey, either treating sick children or providing immunization. These health workers included two Junior/Senior Community Health Extension Workers, a Community Health Supervisor, a Public Health Nurse, and four midwives.

Table 1. List of facilities, by type and location

List of primary health care facilities visited during Facility Assessment Survey, by type and location, Pankshin, 1991

PHC Facility	Number	
General Hospital	1	Pankshin
Rural Health Centre	1	Amper
Basic Health Clinic	1	Kebwir
MCH	5	Dys Tallas Pankshin Chip Langshi
Total	8	

Table 2. Health workers observed, by title

Health workers observed during Facility Assessment Survey, Pankshin, 1991

Title	Number
Community Health Supervisor	1
Junior Community Health Extension Worker*	2
Public Health Nurse	1
Midwife	4
Total	8

* *Includes Community Health Aides/Assistants*

4.1 Assessment of Sick Children

A total of 57 observations on sick children presenting at health facilities were made (Table 3). Nearly half of these sick children (43.9%) presented with fever, a third (35.1%) with diarrhoea, and twenty-three (40.4%) with cough. Other problems noted among sick children included malnutrition, otitis media, and accident-related injuries.

Table 3. Sick child observations, by diagnosis

Sick children presenting at health facilities, by health worker diagnosis, Pankshin, 1991

Diagnosis	Number (%) of observations
Fever	25 (43.9)
Diarrhoea	20 (35.1)
Cough	23 (40.4)
Other problems*	5 (8.8)
Total	57

* *Other problems include malnutrition, otitis media, injuries, etc. These may have been coincident with fever, diarrhoea, and/or cough.*

The following points highlight key findings (summarized in detail in Table 4 and Fig. 1) related to health worker assessment and prescription of drugs for sick children:

- Despite the availability of functional scales in nearly all health facilities, very few health workers (21.1%) routinely weigh sick children. In some facilities, weight is more commonly assessed among children being immunized who have an immunization card, with a growth chart for plotting weight.

- Immunization status was checked for the majority of sick children presenting at health facilities.
- Most health workers took a history of the child's illness by asking questions about duration and history of fever, diarrhoea, and cough. Very few health workers asked mothers about home treatment with western or traditional medicine before coming to the health facility.
- On the average, each sick child received 3.3 drugs for treatment of his or her illness. The number of drugs given per child ranged from one to five.

Patient education practices among health workers, summarized in Table 4 and Fig. 2, were as follows:

- Most health workers explained how to administer medications to the child's mother. However, very few health workers stressed the importance of *completing* the treatment or explained to the mother that she should return to the health center if the child's condition gets worse.
- While half of the health workers explained how to prepare SSS to mothers of sick children, very few actually demonstrated SSS preparation.
- About half of the health workers asked the mother questions to determine whether she understood the information given to her. Very few health workers asked the mother if she herself had any questions.
- A majority of health workers greeted the mother, a gesture which helps the mother feel comfortable and reinforces her role as the first-line care provider.

Figure 1
Part of Sick Children
Worker Practices

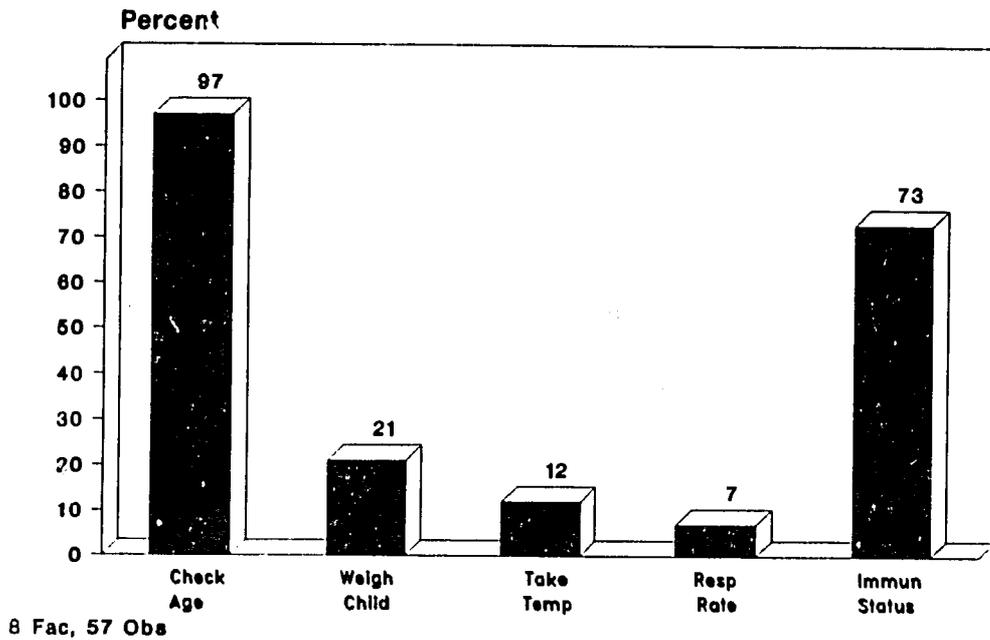


Figure 2
Mothers of Sick Children
Education by Health Workers

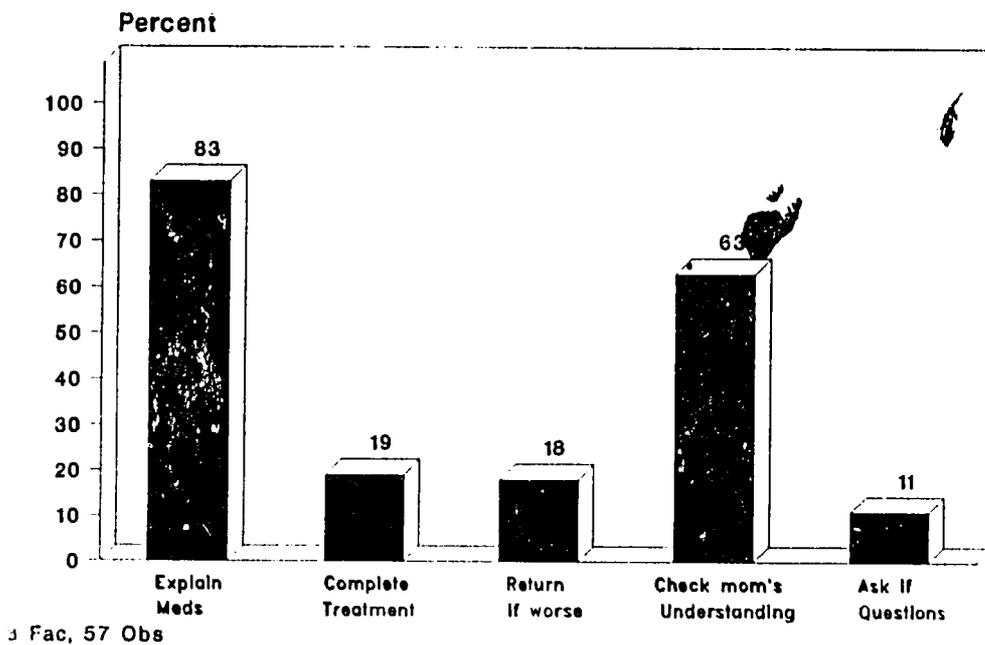


Table 4. Health worker practices in treating sick children

Case management practices among health workers in the treatment of sick children presenting at health facilities, Pankshin, 1991

	Percentage	
	Yes	No
<i>Number of observations = 57</i>		
<i>Number of facilities = 8</i>		

Does the health worker determine the child's:

Age	96.5	3.5
Weight	21.1	78.9
Temperature with a thermometer	12.3	87.7
Respiratory rate	7.0	93.0
Immunization status	72.7	27.3

Does the health worker ask questions about:

General condition of the child.	80.7	19.3
Duration of the illness	89.5	10.5
History of fever	80.7	19.3
Vomiting	56.1	43.9
Diarrhoea	56.1	43.9
Coughing	56.1	43.9
Difficulties with breathing	22.8	77.2
Problems with swallowing	8.8	91.2
History of home treatment with:		
Western medicine	31.6	69.4
Traditional medicine	12.3	87.7

Does the health worker examine the child's:

Eyes	42.1	57.9
Ears	10.5	89.5
Throat	12.3	89.7
Breathing	10.5	89.5
Abdomen	21.0	79.0

Table 4. Health worker practices in treating sick children (continued)

	Percentage	
	Yes	No
Does the health worker diagnose the child as having:		
Fever	43.9	56.1
Malaria	47.3	52.7
Diarrhoea	35.1	64.9
Dehydration	60.0	40.0
Cough	40.4	59.6
Cold	14.0	86.0
Pneumonia/Bronchitis	10.6	89.4
Other	3.5	96.5
Does the health worker give/perscribe:		
Chloroquine		
Any form	57.9	42.1
Tablets	8.8	91.2
Syrup	49.0	51.0
Injection	43.8	56.2
Tab/syrup + injection	38.6	61.4
Paracetamol	68.4	31.6
Antibiotic	28.0	72.0
Cough mixture	29.8	70.2
Cold remedy	5.3	94.7
Vitamins	43.8	56.2
Phenerzon	5.2	94.8
Daraprin	1.8	98.2
Average number drugs/child	3.3	
Range	1-5	

Table 4. Health worker practices in treating sick children (continued)

	Percentage	
	Yes	No
Does the health worker explain to the mother:		
How to administer medications	82.5	17.5
The importance of completing the treatment	19.3	80.7
That she should return to the health center if the child's condition gets worse	17.5	82.5
Does the health worker:		
Explain how to prepare SSS	57.6	42.4
Demonstrate how to prepare SSS	5.3	94.7
Ask the mother to demonstrate how to prepare SSS	31.6	68.4
Ask the mother questions to see if she has understood	63.2	36.8
Ask the mother if she has any questions	10.5	89.5
Greet the mother	70.3	29.7

4.2 Diarrhoea Case Management

Among 57 sick children, 20 (35.1%) had diarrhoea. Table 5 and Fig. 3 present health worker practices in the assessment and case management of these children. The following points summarize key findings:

- Weighing the child with diarrhoea is important both for determining the amount of ORS to give and for assessing fluid gain following ORS administration. In this survey, very few children with diarrhoea were weighed.
- Skin turgor, a tool for assessing the extent of dehydration, was checked in very few children with diarrhoea.
- While the majority of health workers asked mothers about the duration of the diarrhoea episode, only half asked about the number of stools in the past 24 hours and about the presence of blood in the stool.
- None of the children with diarrhoea were given oral rehydration fluids, either ORS or SSS.
- Several children with diarrhoea were prescribed antidiarrhoeal medicine such as kaolin or thalozole.

Education about follow-up treatment at home and SSS preparation (Fig. 4) are summarized below:

- Only one in four mothers received information about the need to give more fluids than usual during the diarrhoea episode.
- Very few mothers who were breastfeeding their child before the diarrhoea episode started were advised to continue breastfeeding throughout the episode, and very few mothers were encouraged to continue feeding the child.
- Less than half of the health workers explained correct SSS preparation to mothers of children with diarrhoea. Very few mothers were either shown how to prepare SSS or asked to actually demonstrate SSS preparation themselves.

Figure 3
Case Management of Diarrhoea
Health Worker Practices

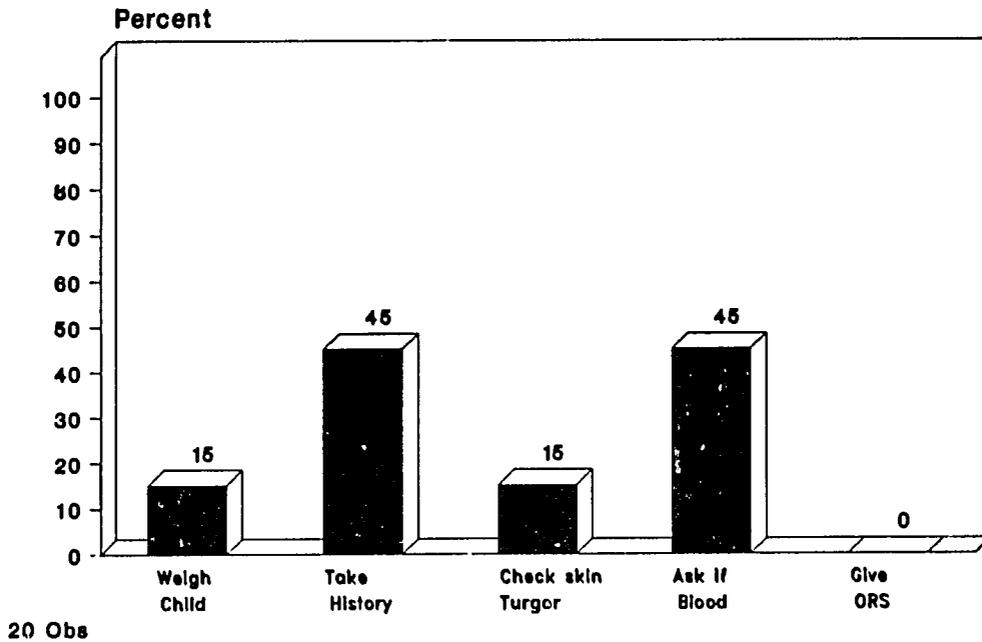


Figure 4
Mothers of Children with Diarrhoea
Education by Health Workers

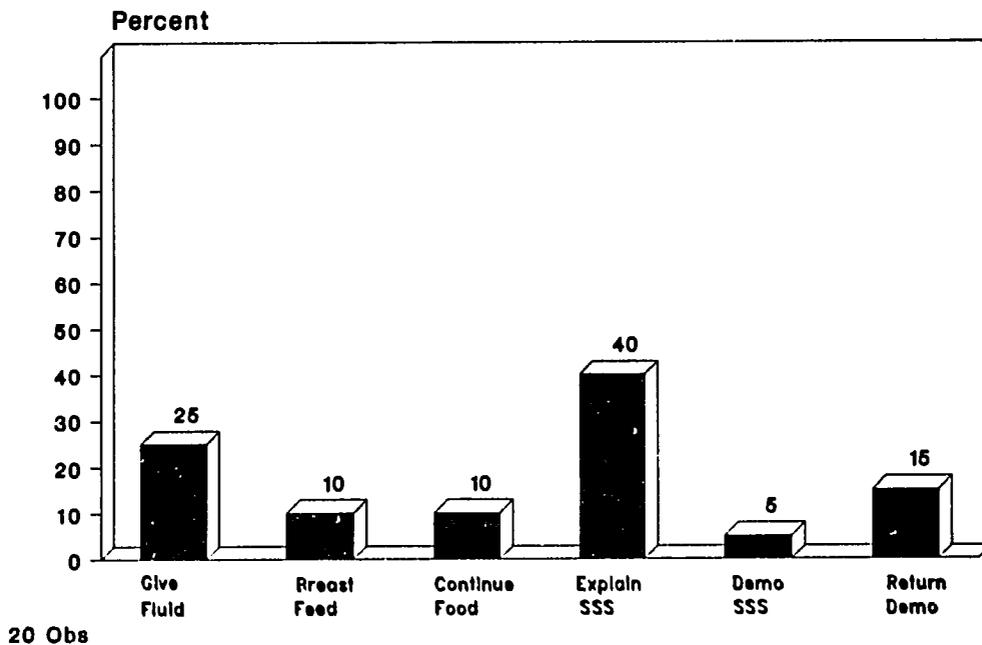


Table 5. Health worker practices, children with diarrhoea

Case management practices among health workers in the treatment of children presenting with diarrhoea, Pankshin, 1991

<i>Number of observations = 20</i> <i>Number of facilities = 8</i>	Percentage	
	Yes	No
Does the health worker:		
Determine the child's age	100.0	—
Determine the child's weight	15.0	85.0
Examine the child's skin turgor	15.0	85.0
Does the health worker ask questions about:		
Duration of diarrhoea	95.0	—
Number of stools in past 24 hours	45.0	55.0
Blood in stool	45.0	55.0
Does the health worker explain the need to:		
Give more fluids than usual	25.0	75.0
Give fluids after each diarrhoea episode	5.0	95.0
Give fluids after each vomiting episode	—	100.0
Continue breastfeeding the child*	10.0	90.0
Continue feeding the child	10.0	90.0
Does the health worker:		
Explain how to prepare SSS	40.0	60.0
Demonstrate how to prepare SSS	5.0	95.0
Ask the mother to demonstrate how to prepare SSS	15.0	85.0
Does the health worker give/prescribe:		
ORS	—	100.0
SSS	—	100.0
Antidiarrhoeal	15.0	85.0

* Among children currently breastfed

3.3 Fever Case Management

Twenty-five sick children (43.9%) presented with fever as a primary complaint. Key findings related to the assessment and case management of children with fever (summarized in Table 6) are highlighted below:

- Among children with fever, none had their temperature taken with a thermometer. Failure to use thermometers occurred despite the availability of thermometers in most health facilities.
- Following national malaria treatment guidelines, almost every child with fever was given some form of chloroquine. The majority of children were given syrup and about one in five were given tablets.
- Chloroquine injection was given to more than half of the children with fever.
- Paracetamol, an antipyretic, was given to the majority of children.

Education of mothers about follow-up treatment at home and measures to prevent malaria is a critical component of the overall case management support provided by health workers. When health worker education practices were observed (Fig. 5), the following points were noted:

- Less than half of all mothers received instructions on how to administer the antimalarial medicine they were given. The importance of completing the treatment (i.e., giving chloroquine for *three days*) was stressed to fewer than half of the mothers.
- Very few mothers were advised to give an antipyretic (like paracetamol) at home for fever.
- None of the mothers was advised to give a tepid sponge bath to her child with fever.

Figure 5
Fever: Case Management
and Education by Health Workers

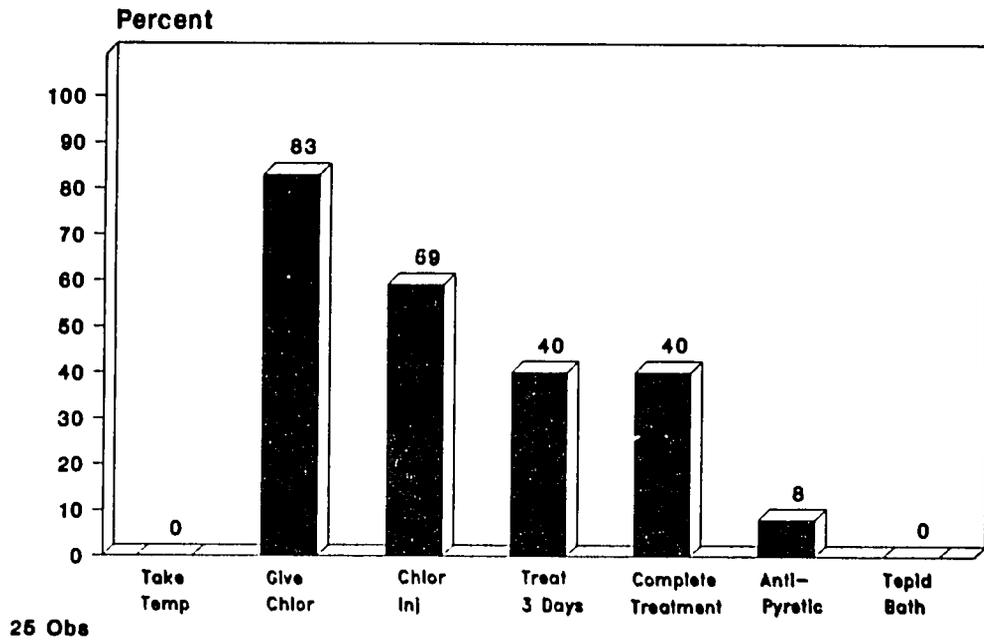


Table 6. Health worker practices, children with fever

Case management practices among health workers in the treatment of children presenting with fever, Pankshin, 1991

	Percentage	
	Yes	No
<i>Number of observations = 25</i>		
Does the health worker determine the child's:		
Age	100.0	—
Weight	8.0	92.0
Temperature with a thermometer	—	100.0
Does the health worker explain to the mother:		
How to administer malaria medications	40.0	60.0
The importance of completing the 3-day treatment	40.0	60.0
The need to give an antipyretic	8.0	92.0
give a tepid bath	—	100.0
Does the health worker give/prescribe:		
Chloroquine		
Any form	82.8	17.2
Tablets	20.0	80.0
Syrup	72.4	27.6
Injection	58.6	41.4
Tab/Syr + Injection	51.7	48.3
Paracetamol	86.2	13.8

4.4 Immunization Practices

During the survey, observations were made on 40 children receiving immunization. Health worker technique and education practices are summarized in Table 7 and Figs. 6-7.

- Nearly all health workers used a sterile needle and syringe to immunize the child.
- The correct antigen dose was given for all immunizations.
- Nearly all health workers immunized the child at the correct site.
- The date on which the immunization was given was recorded on the child's immunization card by almost all health workers.
- Only one third of the health workers explained the importance of completing the immunization series and coming back for follow-up doses. The date for the child's next visit was recorded on the immunization card for only one third of the children.
- About half of the mothers were told what diseases the immunization could prevent, possible reactions to the vaccine, and what to do if the child had such a reaction.
- About half of the health workers asked the mother questions to determine whether she understood the information given to her. Very few health workers asked the mother if she herself had any questions.

Adequate cold chain maintenance is necessary to ensure vaccine potency. The following cold chain practices (summarized in Fig. 6 and Table 10) were observed at health facilities in Pankshin:

- Most refrigerators and cold boxes had neither a chart for monitoring temperature nor a thermometer inside.
- There were no expired vaccines in the health facilities, mainly because the only vaccines available at each facility were those delivered the day of the survey.

Figure 6
Immunization and Cold Chain Maintenance
Health Worker Practices

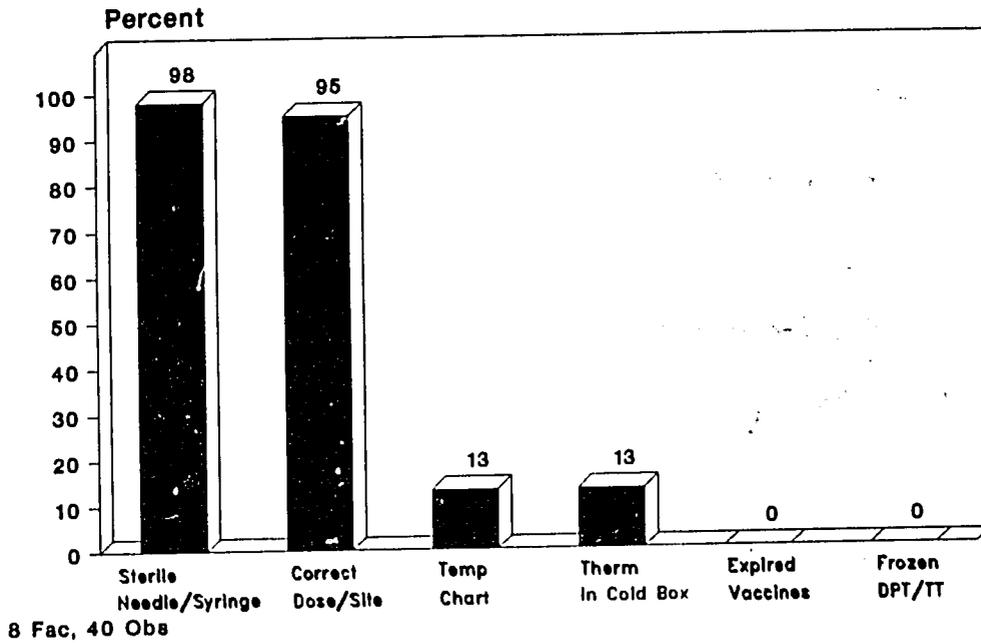


Figure 7
Mothers of Immunized Children
Education by Health Workers

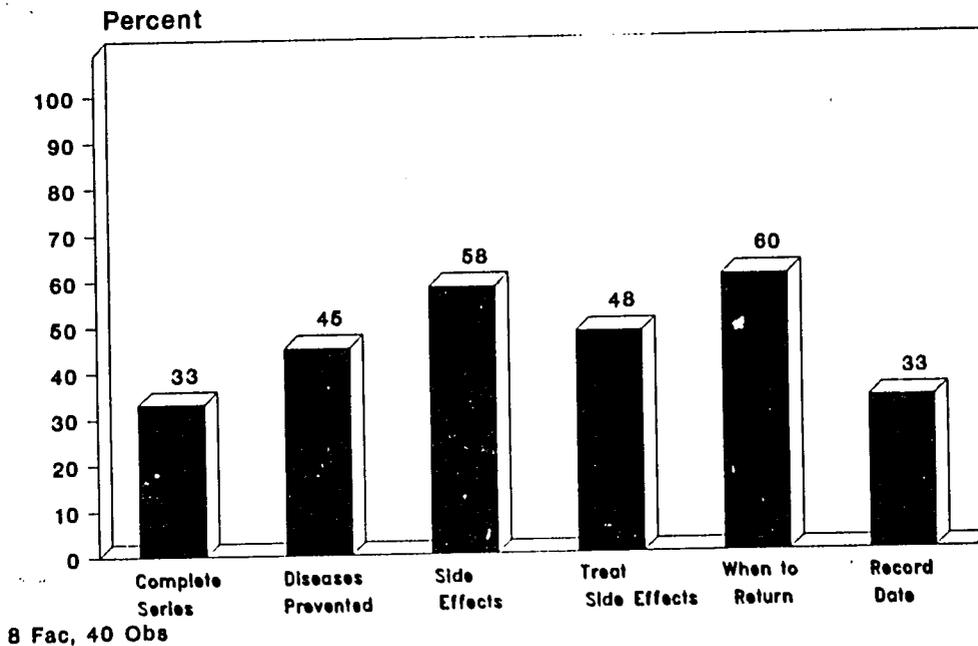


Table 7. Health worker practices, immunization

Immunization practices among health workers, Pankshin, 1991

<i>Number of observations = 40</i> <i>Number of facilities = 8</i>	Percentage responding:	
	Yes	No
Does the health worker determine the child's:		
Age	92.5	7.5
Weight	17.5	82.5
Temperature with a thermometer	—	100.0
Does the health worker:		
Use a sterile needle	97.5	2.5
Use a sterile syringe	100.0	—
Administer the correct dose	100.0	—
Immunize at the correct site	95.0	5.0
Does the health worker explain to the mother:		
Importance of completing the immunization series	32.5	67.5
Diseases prevented by these vaccines	45.0	55.0
Possible reactions to the vaccines	57.5	42.5
What to do if there is a reaction	47.5	52.5
When she should return to the health center	60.0	40.0
Does the health worker:		
Ask the mother questions to see if she has understood	45.0	55.0
Ask the mother if she has any questions	12.5	87.5
Does the health worker record on the child's immunization card:		
Today's date	97.5	2.5
Date of next visit	32.5	67.5

Table 8. Missed opportunities for immunization

Missed opportunities for immunization among children and mothers presenting at health facilities, Pankshin, 1991

<i>Number of observations = 57</i>	Number (%)	
	Yes	No
<i>Among sick children:</i>		
Was immunization card available	11/57 (19.3)	46/57 (80.7)
Did health worker check the child's immunization status	8/11 (72.7)	3/11 (27.3)
<i>Among mothers of sick children:</i>		
Does mother have a health (TT) card	0/57 (—)	57/57 (100.0)
Did health worker check mother's TT status	—	(100.0)
Was mother referred for immunization if needed	—	(100.0)

When a sick child visits a health facility, immunization status should be routinely checked and the child referred for immunization, if needed. Information presented in Table 8 indicates that there are a substantial number of "missed opportunities" for immunizing children and their mothers at health facilities in Pankshin. During the survey, the following observations were made:

- Immunization cards were available for only one in five sick children presenting at health facilities. When an immunization card was available, most health workers checked the child's immunization status.
- None of the mothers who accompanied their sick child to the health facility had her own health (TT) card with her. Thus, mothers who may have been in need of TT immunization were not identified and the vaccine was not administered.

4.5 Mothers Knowledge and Practices

Knowledge and practices among mothers of sick and immunized children, as reported during exit interviews, are presented in Table 9 and Figs. 8-9.

In this survey, among mothers of *sick children* leaving the health facility —

- more than half understood what to do for the child upon returning home
- half knew when it may be necessary to bring the child back
- fewer than half knew that they should return to the health facility if the child's condition became worse

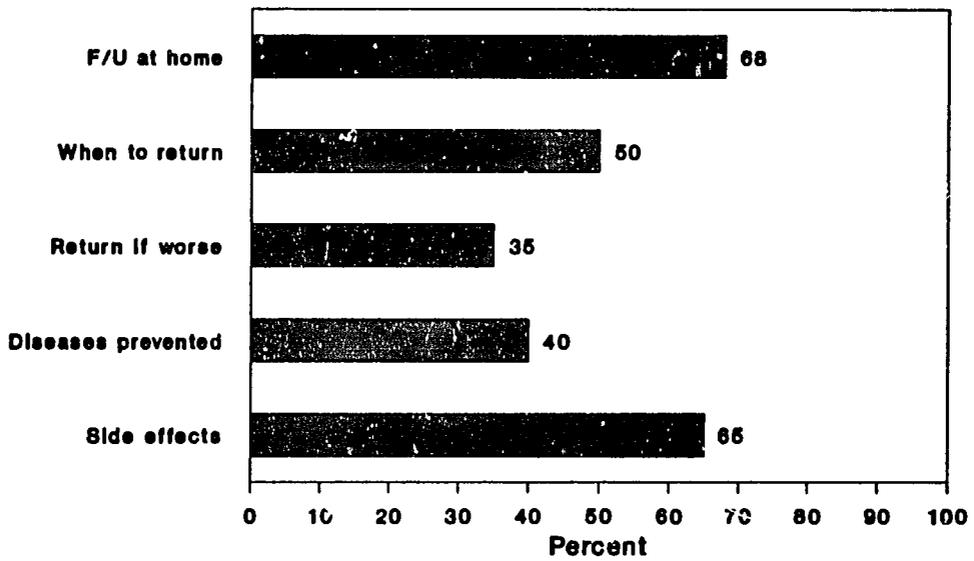
Among mothers of children with *diarrhoea* —

- the majority had heard about the "solution which one gives to children with diarrhoea"
- one out of four did something at home *before* coming to the health facility) to treat the child's diarrhoea. Very few mothers gave sugar-salt solution (SSS) or other fluids at home.
- nearly half knew that SSS could prevent dehydration and help stop diarrhoea in their children
- only one in three mothers knew how to prepare SSS, and very few mothers could demonstrate the correct amount of water, salt, and sugar to be added

Finally, among mothers of *immunized* children —

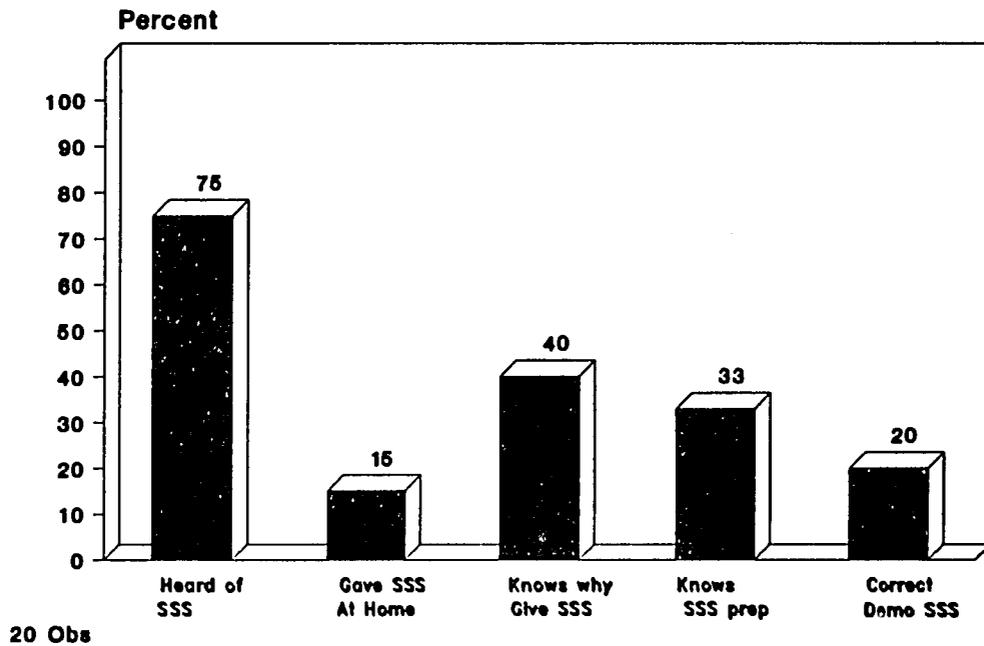
- about half knew which diseases the immunization would prevent
- more than half knew possible side effects which might occur

Figure 8
Mothers of Sick and Immunized Children
Knowledge upon Leaving Health Facility



57 Obs, sick children
 40 Obs, immunized children

Figure 9
Mothers' Knowledge of Diarrhoea
and SSS Preparation



20 Obs

Table 9. Mothers' knowledge and practices

Knowledge and practices among mothers of sick and immunized children,
as reported during exit interviews, Pankshin, 1991

	Number (%)	
	Yes	No
<i>Mothers of sick children (n=54)</i>		
Those who know:		
What to do when she returns home	37 (68.5)	17 (31.5)
When to bring the child back	27 (50.0)	27 (50.0)
To return if the child's condition becomes worse	19 (35.2)	35 (64.8)
<i>Mothers of children with diarrhoea (n=20)</i>		
Did you do anything at home to treat the child	5 (25.0)	15 (75.0)
What did you do at home		
Gave SSS	3 (15.0)	2 (85.0)
Gave more fluids	1 (5.0)	4 (95.0)
Other	1 (5.0)	4 (95.0)
Have you heard of the solution which one gives to children with diarrhoea	15 (75.0)	5 (25.0)
Do you know why people give SSS to children with diarrhoea		
To stop diarrhoea	10 (50.0)	10 (50.0)
To prevent dehydration	8 (40.0)	12 (60.0)
Did the health worker explain how to prepare SSS in the clinic today	8 (40.0)	12 (60.0)
Do you yourself know how to prepare SSS	12 (60.0)	8 (40.0)

Table 9. Mothers' knowledge and practices (continued)

	Number (%)	
	Yes	No
Mothers who know correct amount of:		
Water	74 (58.3)	5 (41.7)
Salt	4 (33.3)	8 (66.7)
Sugar	4 (33.3)	8 (66.7)
Mothers who demonstrate correct amount of:		
Water	6 (30.0)	14 (70.0)
Salt	4 (20.0)	16 (80.0)
Sugar	4 (20.0)	16 (80.0)
 <i>Mothers of immunized children (n=40)</i>		
Those who know:		
Diseases the immunization would prevent	16 (40.0)	24 (60.0)
Possible side effects	26 (65.0)	14 (35.0)

4.6 Equipment and Supply Inventory

An *equipment/supply* inventory conducted at all eight health facilities (Table 10, Fig. 10) revealed that —

- potable water, for drinking and handwashing, was not available at two facilities
- nearly all facilities had a functional weighing scale
- needles and syringes were not available at several facilities, and several facilities did not have a functional steam sterilizer *
- a functional refrigerator was available at three facilities, and two facilities had a cold box
- childhood antigens (measles, DPT, OPV, and BCG) and tetanus toxoid were not available at any facility — vaccines were brought in during the survey for the purpose of observing health workers administering immunizations.

An inventory of *essential drugs* revealed that —

- chloroquine (tablets and/or syrup) was in stock at most facilities
- cotrimoxazole tablets were not available at any facility
- ORS packets were not available at any facility.

For *sugar-salt solution (SSS)* —

- containers, bowls, and spoons for SSS preparation were not available at several facilities
- sugar and salt were not available at most facilities

A review of *record-keeping supplies* revealed that —

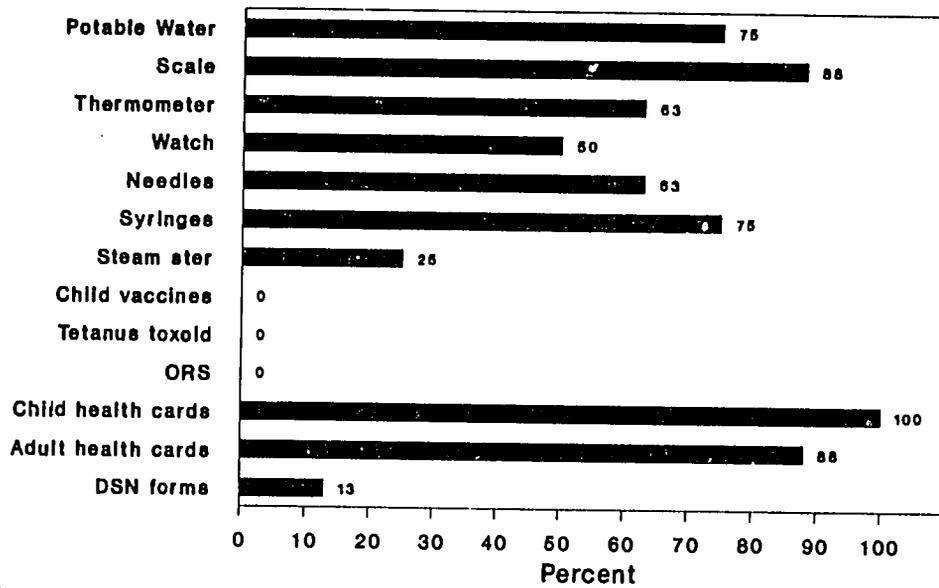
- whereas child health/immunization cards were available at all facilities, adult health cards were not available at one facility and tetanus toxoid cards were not available at any facility

- several facilities did not have immunization registers
- notifiable disease forms (DSN) were generally not available

A detailed inventory of *malaria diagnostic equipment and supplies* (Table 11) indicated that most health facilities in Pankshin have neither reagents nor supplies required for malaria diagnosis. The following specific observations were made:

- All facilities had a room designated as a laboratory facility.
- Binocular microscopes were available at two facilities and monocular microscopes at six facilities.
- Stains and reagents for malaria diagnosis are essentially unavailable at most facilities.
- Additional equipment (i.e., microhaematocrit centrifuge, tally counters and autolets) were not available in most facilities. An analytic balance was available in one facility.

Figure 10
Equipment/Supplies, Vaccines, and ORS
Availability at Health Facilities



8 Fac

Table 10. Equipment/supplies, vaccines, and drug inventory

Equipment/supplies, vaccines, and selected essential drugs available at health facilities, Pankshin, 1991

<i>Number of facilities = 8</i>	Number (%)	
	Yes	No
General equipment/supplies:		
Thermometer	5 (62.5)	3 (37.5)
Weighing scale, functional	7 (87.5)	1 (12.5)
Timer	1 (12.5)	7 (87.5)
Watch (with second hand)	4 (50.0)	4 (50.0)
Oxygen cylinder	2 (25.0)	6 (75.0)
full	—	2 (100.0)
Needles		
disposable	5 (62.5)	3 (37.5)
reusable	5 (62.5)	3 (37.5)
Syringes	6 (75.0)	2 (25.0)
Steam sterilizer, functional	2 (25.0)	6 (75.0)
Kerosene stove, functional	6 (75.0)	2 (25.0)
Potable water	6 (75.0)	2 (25.0)
Cold storage:		
Refrigerator, functional	3 (37.5)	5 (62.5)
temperature chart	1	7
thermometer inside	1	7
spare cylinder	—	8
Cold Box	3 (37.5)	5 (62.5)
temperature chart	1	2
thermometer inside	1	2
Either refrigerator or cold box	5 (62.5)	3 (37.5)
expired vaccines	—	8 (100.0)
frozen DPT or TT	—	8 (100.0)
frozen blocks	5 (62.5)	3 (37.5)
Vaccines*:		
Measles	—	8 (100.0)
DPT	—	8 (100.0)
OPV	—	8 (100.0)
BCG	—	8 (100.0)
TT	—	8 (100.0)

Table 10. Equipment/supplies, vaccines, and drug inventory (continued)

	Number (%)	
	Yes	No
Selected essential drugs:		
Chloroquine tablets	6 (75.0)	2 (25.0)
syrup	8 (100.0)	—
Cotrimoxazole tablets	—	8 (100.0)
syrup	2 (25.0)	6 (75.0)
ORS packets		
Any size	—	8 (100.0)
600 ml	—	8 (100.0)
1 liter	—	8 (100.0)
SSS/ORS supplies:		
Containers (for measuring)	6 (75.0)	2 (25.0)
Bowls	5 (62.5)	3 (37.5)
Spoons	6 (75.0)	2 (25.0)
Sugar	2 (25.0)	6 (75.0)
Salt	2 (25.0)	6 (75.0)
Record-keeping supplies:		
Child health (immunization) cards	8 (100.0)	—
Adult health cards	7 (87.5)	1 (12.5)
TT cards	—	8 (100.0)
Immunization register	6 (75.0)	2 (25.0)
Notifiable disease (DSN) forms	1 (12.5)	7 (87.5)

* *For purposes of the survey, vaccines were brought to the facilities so that the health workers could demonstrate technique in giving injections*

Table 11. Malaria diagnostic equipment and supplies

Availability of equipment, supplies, and reagents required for diagnosis of malaria, Pankshin, 1991

<i>Number of facilities = 8</i>	Number (%)	
	Yes	No
Laboratory space available	8 (100.0)	—
Microscopes		
Binocular	2 (25.0)	6 (75.0)
Monocular	6 (75.0)	2 (25.0)
Oil immersion	3 (37.5)	5 (62.5)
Microscope slides	4 (50.0)	4 (50.0)
Slide boxes	—	8 (100.0)
Slide markers	1 (12.5)	7 (87.5)
Slide rack	1 (12.5)	7 (87.5)
Stains		
Giemsa	1 (12.5)	7 (87.5)
Fields	—	8 (100.0)
Staining jar or rack	1 (12.5)	7 (87.5)
Any reagents for malaria diagnosis	4 (50.0)	4 (50.0)
Glycerol	—	8 (100.0)
Xylol	—	8 (100.0)
Buffer salts	—	8 (100.0)
Methanol (analar)	1 (12.5)	7 (87.5)
Absolute alcohol	1 (12.5)	7 (87.5)
Methylated spirit	4 (50.0)	4 (50.0)
Microhaematocrit centrifuge	1 (12.5)	7 (87.5)
Reader for microhaematocrit centrifuge	1 (12.5)	7 (87.5)
Analytical balance	1 (12.5)	7 (87.5)
Tally counter	1 (12.5)	7 (87.5)
Timer or stop clock	1 (12.5)	7 (87.5)
Autolet	—	8 (100.0)
Absorbent cotton wool	4 (50.0)	4 (50.0)
Bench aid handbook for malaria diagnosis	—	8 (100.0)

4.7 Management and Supervision Skills

Interviews were conducted with eight health workers and five supervisors (Table 12) determine management and supervisory skills. Key management practices among *health workers* (summarized in Table 13, Fig. 11) included the following:

- Only one health worker had a written workplan.
- Target populations for measles, TT, malaria, and diarrhoea were not known by any health worker.
- Only one health workers had a written job description, and standing orders (job guidelines) were available half of the facilities.
- Schedules for supervisory visits were generally not available.
- Only half of the health workers report that routine supervisory visits are helpful in keeping their technical skills up-to-date.
- Health worker performance is evaluated regularly, and most health workers report feeling comfortable discussing problems with their supervisor.
- Reports (mainly health statistics and patient data) are regularly submitted by most health workers, and these reports are used on the job by some health workers.

Key management and supervisory practices among facility *supervisors* (summarized in Table 14, Fig. 12) included the following:

- Fewer than half of the supervisors reported having a map, or knowing the population, of the Local Government.
- Job descriptions, standing orders, and procedures to evaluate health workers were generally not available.
- Neither supervisory schedules nor supervisory checklists are used.
- Only one supervisor reported having to cancel a planned supervisory visit due to lack of transport.
- About half of the supervisors had observed facility-level health education activities in the past six months.

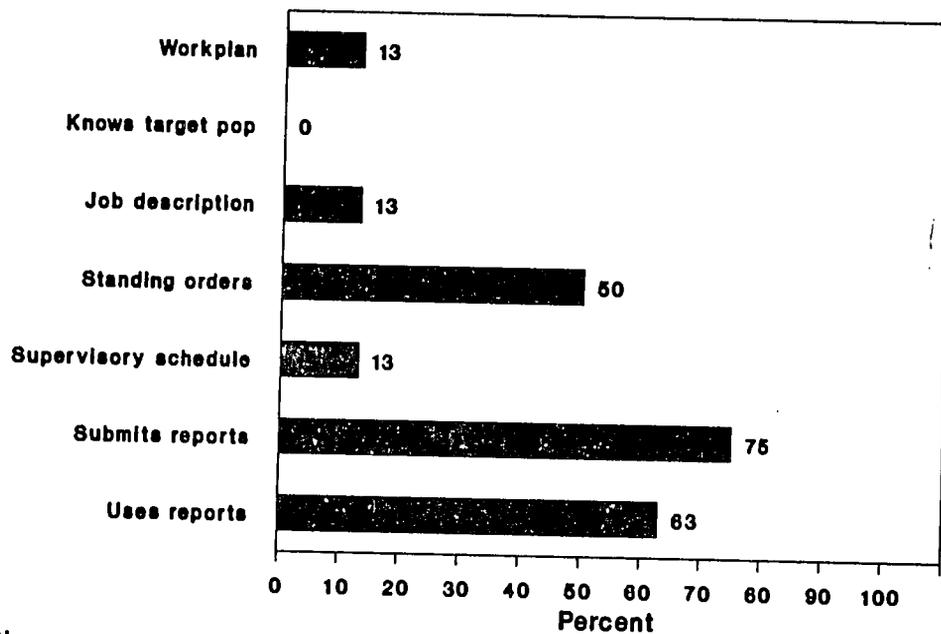
Table 12. Health workers and supervisors interviewed, by title

Health workers and supervisors interviewed during
Facility Assessment Survey, by title, Pankshin, 1991

Title/position	Number
Health workers:	
Community Health Supervisor	1
Junior Community Health Extension Worker*	2
Midwife	4
Public Health Nurse	1
Total	8
Supervisors:	
Head of Unit/Facility	2
PHC Coordinator	1
Community Health Supervisor	1
Matron	1
Total	5

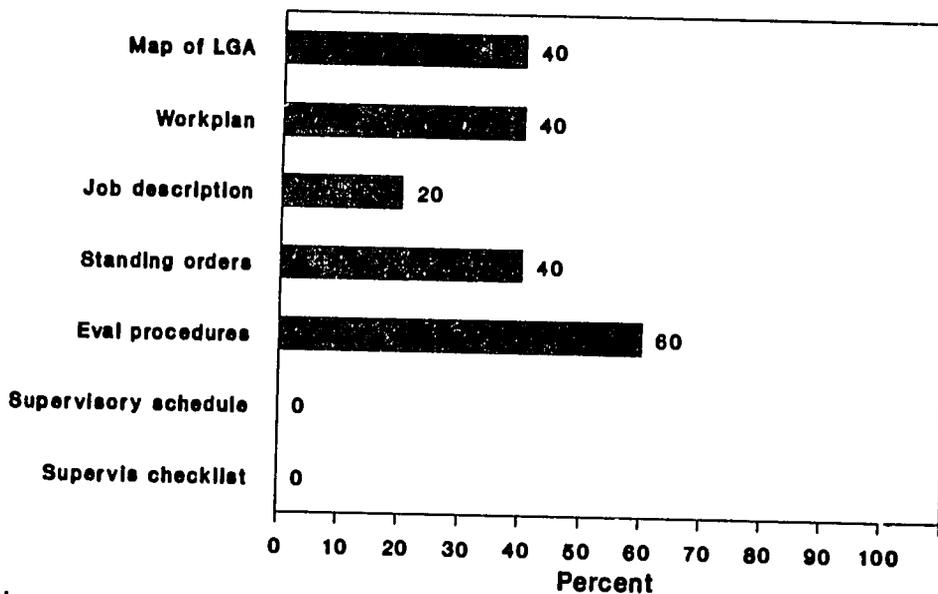
** Includes Community Health Aides/Assistants*

Figure 11
Management Skills among Health Workers



8 Obs

Figure 12
Management and Supervisory Skills Among Supervisors



5 Obs

Table 13. Management skills among health workers

Management skills among health workers interviewed during the Facility Assessment Survey, Pankshin, 1991

	Number (%)	
	Yes	No
Number of interviews = 8		
Workplan:		
Does the health worker have a written workplan	1 (12.5)	7 (87.5)
Was the workplan developed with health worker input	1 (12.5)	7 (87.5)
Target populations:		
Were target populations explained to the health worker by his/her supervisor for:		
Measles	—	8 (100.0)
Tetanus Toxoid	—	8 (100.0)
Malaria	—	8 (100.0)
Diarrhoea	—	8 (100.0)
Does the health worker know target populations for:		
Measles	—	8 (100.0)
Tetanus Toxoid	—	8 (100.0)
Malaria	—	8 (100.0)
Diarrhoea	—	8 (100.0)
Job description:		
Does the health worker have a written job description	1 (12.5)	7 (87.5)
Standing orders:		
Are there written standing orders or job guidelines	4 (50.0)	4 (50.0)

Table 13. Management skills among health workers (continued)

	Number (%)	
	Yes	No
Supervisory visits:		
Is there a schedule for supervisory visits	1 (12.5)	7 (87.5)
Were any supervisory visits canceled in the past 6 months	1 (12.5)	7 (87.5)
Does the supervisor keep health worker's skills up to date	4 (50.0)	4 (50.0)
Is the health worker's performance evaluated regularly	8 (100.0)	—
Does he/she discuss problems with supervisor	6 (75.0)	2 (25.0)
Reports:		
Does the health worker submit reports regularly	6 (75.0)	2 (25.0)
Does he/she use the reports on the job	5 (62.5)	3 (37.5)

Table 14. Management/supervision skills among supervisors

Management and supervision skills among supervisors of health facilities,
Pankshin, 1991

<i>Number of interviews = 5</i>	Number (%)	
	Yes	No
Does the supervisor have:		
Map of the LGA	2 (40.0)	3 (60.0)
Written workplan	2 (40.0)	3 (60.0)
Job descriptions for all cadres of health workers	1 (20.0)	4 (80.0)
Standing orders for all cadres of health workers	2 (40.0)	3 (60.0)
Procedures to evaluate health workers	3 (60.0)	2 (40.0)
Does the supervisor know:		
Which villages/towns do not have access to a health facility	2 (40.0)	3 (60.0)
Population of the LGA	—	5 (100.0)
Target populations for:		
Measles	—	5 (100.0)
Tetanus Toxoid	—	5 (100.0)
Malaria	—	5 (100.0)
Diarrhoea	—	5 (100.0)
Were they explained to staff	—	5 (100.0)
Does/has the supervisor:		
Follow a supervisory schedule	—	5 (100.0)
Use supervisory checklists to assess health worker performance	—	5 (100.0)
Make more visits to health workers not performing well	1 (20.0)	4 (80.0)
Cancelled any planned supervisory visits because of lack of transport	1 (20.0)	4 (80.0)
Observed any health education activities in the last 6 months	3 (60.0)	2 (40.0)

Appendix A

**FACILITY ASSESSMENT SURVEY
PANKSHIN LOCAL GOVERNMENT AREA**

+++++
 LGA: _____ Facility: _____ Obs #: _____ Date: __/__/91
 Health Worker Observed (Title): _____ Interviewer: _____
 +++++

**OBSERVATION CHECKLIST #1
SICK CHILDREN**

DOES THE HEALTH WORKER DETERMINE THE CHILD'S:

- | | | |
|---|-------|-------|
| 1. Age | Y | N |
| 2. Weight | Y | N |
| 3. Temperature with a thermometer | Y | N |
| Temperature by touching the skin | Y | N |
| 4. Respiratory rate | Y | N |
|
5. Does the child have a health (immunization) card.. |
Y |
N |
| If Yes, does the health worker: | | |
| Check the child's immunization status | Y | N |
| Refer for immunization (when needed) | Y | N |
|
6. Does the mother have a health (TT) card |
Y |
N |
| If Yes, does the health worker: | | |
| Check the mother's TT status | Y | N |
| Refer for TT immunization (when needed) | Y | N |

DOES THE HEALTH WORKER ASK QUESTIONS ABOUT:

- | | | |
|---|---|---|
| 7. General condition of the child | Y | N |
| 8. Duration of the illness | Y | N |
| 9. History of fever | Y | N |
| 10. Vomiting | Y | N |
| 11. Diarrhea | Y | N |
| 12. Duration of diarrhea | Y | N |
| 13. Number of stools/past 24 hrs | Y | N |
| 14. Blood in the stool | Y | N |
| 15. Coughing | Y | N |

- | | | | |
|-----|-------------------------------------|---|---|
| 16. | Difficulties with breathing | Y | N |
| 17. | Problems with swallowing | Y | N |
| 18. | History of home treatment with: | | |
| | Traditional medicine/practice | Y | N |
| | Western medicine | Y | N |

DOES THE HEALTH WORKER EXAMINE THE CHILD'S:

- | | | | |
|-----|-----------------|---|---|
| 19. | Eyes | Y | N |
| 20. | Ears | Y | N |
| 21. | Throat | Y | N |
| 22. | Breathing | Y | N |
| 23. | Abdomen | Y | N |
| 24. | Skin fold | Y | N |

*****DIAGNOSIS*****

DOES THE HEALTH WORKER DIAGNOSE THE CHILD AS HAVING:

- | | | | |
|-----|-------------------|---|---|
| 25. | Diarrhea | Y | N |
| 26. | Dehydration | Y | N |

If Yes: ___ Slight
 ___ Moderate
 ___ Severe

- | | | | |
|-----|----------------------------|---|---|
| 27. | Cough | Y | N |
| 28. | Cold | Y | N |
| 29. | Pneumonia/Bronchitis | Y | N |
| 30. | Fever | Y | N |
| 31. | Malaria | Y | N |
| 32. | Other: _____ | | |

*****EDUCATION OF THE MOTHER*****

DOES THE HEALTH WORKER EXPLAIN TO THE MOTHER:

- | | | | |
|-----|--|---|---|
| 33. | How to administer medications | Y | N |
| 34. | The importance of completing the treatment | Y | N |
| 35. | The need to: | | |
| | . give more fluids than usual | Y | N |
| | . give fluids after each diarrhea episode | Y | N |
| | . give fluids after each vomiting episode | Y | N |
| | . continue breastfeeding the child | Y | N |
| | . continue feeding the child | Y | N |
| | . give an antipyretic | Y | N |
| | . give a tepid bath | Y | N |
| 36. | That she should return to the health center
if the child's condition gets worse | Y | N |

DOES THE HEALTH WORKER:

- | | | | |
|-----|---|---|---|
| 37. | Explain how to prepare SSS | Y | N |
| 38. | Demonstrate how to prepare SSS | Y | N |
| 39. | Ask the mother to demonstrate how to prepare SSS... | Y | N |

DOES THE HEALTH WORKER:

- | | | | |
|-----|--|---|---|
| 40. | Ask the mother questions to see if she
has understood | Y | N |
| 41. | Ask the mother if she has any questions | Y | N |

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FACILITY ASSESSMENT SURVEY

+++++
LGA: _____ **Facility:** _____ **Obs #:** _____ **Date:** __/__/91
Health Worker Observed (Title): _____ **Interviewer:** _____
 +++++

OBSERVATION CHECKLIST #2
*****IMMUNIZATION*****

DOES THE HEALTH WORKER DETERMINE THE CHILD'S:

- | | | |
|---|---|---|
| 1. Age | Y | N |
| 2. Weight | Y | N |
| 3. Temperature with a thermometer | Y | N |
| Temperature by touching the skin | Y | N |
| 4. Does the child have a health (immunization) card.. | Y | N |
| If Yes, does the health worker: | | |
| Check the child's immunization status | Y | N |
| 5. Does the mother have a health (TT) card | Y | N |
| If Yes, does the health worker: | | |
| Check mother's TT status | Y | N |
| Refer for TT immunization (when needed) | Y | N |
| 6. Is the child sick today | Y | N |

DOES THE HEALTH WORKER:

- | | | |
|---|---|---|
| 7. Immunize the child . | Y | N |
| Send the child to the immunization service | Y | N |
| 8. Use a sterile needle for each injection | Y | N |
| 9. Use a sterile syringe for each injection | Y | N |
| 10. Administer the correct dose | Y | N |
| 11. Immunize at the correct site | Y | N |

DOES THE HEALTH WORKER EXPLAIN TO THE MOTHER:

- | | | | |
|-----|--|---|---|
| 12. | The importance of completing the immunization series | Y | N |
| 13. | What diseases can be prevented by these vaccines.. | Y | N |
| 14. | The possible reactions to these vaccines | Y | N |
| 15. | What to do if there is a reaction | Y | N |
| 16. | When she should return to the health center | Y | N |

DOES THE HEALTH WORKER:

- | | | | |
|-----|---|---|---|
| 17. | Ask the mother questions to see if she has understood | Y | N |
| 18. | Ask the mother if she has any questions | Y | N |

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FACILITY ASSESSMENT SURVEY

+++++
LGA: _____ Facility: _____ Obs #: _____ Date: __/__/91

Health Worker Observed (Title): _____ Interviewer: _____
+++++

EXIT INTERVIEW #1
ALL CHILDREN

"I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT YOUR VISIT TO THE HEALTH CENTER"

1. In which village/town do you live? _____

2. How old is the child? Years _____ Months _____

3. What is the reason for your visit today?

Child suffering from: _____ Fever
_____ Cough
_____ Diarrhea
_____ Other

Child in good health needing: _____ Immunization (Go to Q.6)
_____ Other: _____

4. Did you receive any medicine (prescription) for your child Y N

CHECK ALL MEDICINE GIVEN/PRESCRIBED FOR THE CHILD:

- _____ ORS
- _____ SSS
- _____ Chloroquine (Tablets)
- _____ Chloroquine (Syrup)
- _____ Chloroquine (Injection)
- _____ Other Antimalarial: _____
- _____ Paracetamol (Antipyretic)
- _____ Antidiarrheal
- _____ Antibiotic
- _____ Cough Mixture (Benylin, Tussifin, Linctus, Codeine, etc.)
- _____ Cold Remedy (Actifed, Phenergan, etc.)
- _____ Other: _____

FILL IN THE TABLE BELOW BY ASKING THE MOTHER:

- . How much medicine do you give the child at one time?
- . How many times do you give it to the child each day?
- . For how many days will you give the medicine to the child?

<u>MEDICINE</u>	<u>How much each time?</u>	<u>How many times each day?</u>	<u>For how many days?</u>
Chloroquine (Tab)	_____ Tsp	_____	_____
Chloroquine (Syr)	_____ Tsp	_____	_____
Antibiotic (Tab)	_____ Tabs	_____	_____
Antibiotic (Syr)	_____ Tabs	_____	_____
Paracetamol (Tab)	_____ Tabs	_____	_____
Paracetamol (Syr)	_____ Tsp	_____	_____

5. Did the health worker tell you what to do for the child when you return home Y N

What did he tell you? (Check all that apply)

- _____ Give more fluids than usual
- _____ Give fluids after each diarrhea episode
- _____ Give fluids after each vomiting episode
- _____ Continue breastfeeding the child
- _____ Continue feeding the child
- _____ Give an antipyretic (medicine against fever)
- _____ Give a tepid bath
- _____ Other: _____

6. Did the health worker tell you when to bring
the child back Y N

What did he say? (Check all that apply)

There is no need to return
(Child is in good health and has received
all necessary immunizations)

Return for the child's next immunization

When? Knows
 Doesn't know

Return if the child's condition becomes worse

How will you know if the child's condition
becomes worse?

If he has fever
 If he refuses to eat
 If diarrhea gets worse
 If he has chest indrawing
 Other: _____

7. Did the health worker greet you Y N

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FACILITY ASSESSMENT SURVEY

+++++
LGA: _____ **Facility:** _____ **Obs #:** _____ **Date:** __/__/91

+++++
Health Worker Observed (Title): _____ **Interviewer:** _____
 +++++

**EXIT INTERVIEW #2
 CHILD WITH DIARRHEA**

1. Did you do anything at home for this child
 with diarrhea Y N

If Yes, what did you do? _____ Gave SSS (Go to Q.3)
 _____ Gave Home Fluids
 _____ Other: _____

2. Have you ever heard of the solution (liquid)
 which one gives to children with diarrhea Y N

3. Why do people give SSS to children with diarrhea?
 _____ To stop diarrhea
 _____ To prevent dehydration
 _____ Other: _____
 _____ Doesn't know

4. Did the health worker show you how to
 prepare SSS in the clinic today Y N

5. Do you yourself know how to prepare SSS Y N

If Yes: "PLEASE, TELL ME HOW YOU PREPARE SSS"

6. The amount of **WATER** the mother said she adds is:
 _____ Correct (2 Fanta bottles or a Beer bottle)
 _____ Incorrect

7. The amount of **SALT** the mother said she adds is:
 _____ Correct (1 level tsp)
 _____ Incorrect

8. The amount of **SUGAR** the mother said she adds is:

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___ Correct (10 level tsp or 5 cubes)
___ Incorrect

"PLEASE, SHOW ME HOW YOU PREPARE SSS."

NOTE WHETHER THE MOTHER PREPARED THE SSS CORRECTLY.

DID SHE ADD THE CORRECT AMOUNT OF WATER? SALT? SUGAR?

9. The amount of **WATER** the mother added is:

___ Correct (2 Fanta bottles or a Beer bottle)
___ Incorrect

10. The amount of **SALT** the mother added is:

___ Correct (1 level tsp)
___ Incorrect

11. The amount of **SUGAR** the mother added is:

___ Correct (10 level tsp or 5 cubes)
___ Incorrect

FACILITY ASSESSMENT SURVEY

+++++
LGA: Facility: Obs #: Date: __/__/91

Health Worker Observed (Title): Interviewer:
+++++

EXIT INTERVIEW #3
IMMUNIZED CHILD

1. Did the health worker tell you which diseases
the immunization would prevent Y N

- If Yes, which diseases?
Measles
Diphtheria
Pertussis ("Whooping Cough")
Tetanus
Poliomyelitis
Tuberculosis

2. Did the health worker tell you what might happen
as a side effect after the immunization Y N

- If Yes, what?
Child might have fever
Child might have painful arms
Other:

3. May I see the child's health (immunization) card?

- CHECK ALL VACCINES GIVEN TODAY:
BCG
DPT
OPV
Measles

WAS THE FOLLOWING INFORMATION CORRECTLY RECORDED:

Today's Date Y N
Date of next visit Y N

Handwritten mark

FACILITY ASSESSMENT SURVEY

+++++
LGA: _____ **Facility:** _____ **Type:** _____

Interviewer: _____ **Date:** ____/____/91

*****EQUIPMENT/SUPPLIES*****

- | | | | | |
|-----|---|---|---|-----------------|
| 1. | Thermometer | Y | N | |
| 2. | Weighing scale | Y | N | |
| | In working order? | Y | N | |
| 3. | Immunization register | Y | N | |
| 4. | Child health (immunization) cards | Y | N | |
| 5. | Adult health cards | Y | N | |
| 6. | TT cards | Y | N | |
| 7. | Timer | Y | N | |
| 8. | Watch (60 second) | Y | N | |
| 9. | Oxygen cylinder | Y | N | |
| | If yes: _____ Empty | | | |
| | _____ Full | | | |
| | | | | AMOUNT |
| | | | | IN STOCK |
| 10. | Needles (Disposable) | Y | N | _____ |
| 11. | Needles (Reusable) | Y | N | _____ |
| 12. | Syringes | Y | N | _____ |
| 13. | Sterilization method: _____ Steam | | | |
| | _____ Boiling | | | |
| | _____ Other: _____ | | | |
| 14. | Steam sterilizer | Y | N | |
| | In working order? | Y | N | |
| 15. | Kerosene stove | Y | N | |
| | In working order? | Y | N | |
| 16. | Electric cooker | Y | N | |
| | In working order? | Y | N | |

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17. Refrigerator Y N
 In working order? Y N
- Type: ___ Electric Condition: ___ Good
 ___ Kerosene ___ Fair
 ___ Gas ___ Poor
- Thermometer inside Y N
 Temperature today: _____
- Temperature chart Y N
 Since start of month, number of days
 when temperature was: 0-8 _____
 <0 _____
 >8 _____
- Spare cylinder for refrigerator Y N
18. Cold box Y N
- Condition: ___ Good
 ___ Fair
 ___ Poor
- Thermometer inside Y N
 Temperature today: _____
- Temperature chart Y N
 Since start of month, number of days
 when temperature was: 0-8 _____
 <0 _____
 >8 _____
19. Expired vaccines in refrigerator/cold box Y N
 20. Frozen DPT or TT in refrigerator/cold box Y N
 21. Frozen cold blocks available Y N
22. Bowls to prepare ORS Y N
 23. Containers to measure ORS Y N
 24. Spoons to give ORS Y N
 25. Sugar for SSS Y N
 26. Salt for SSS Y N
 27. Potable water at health center Y N

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FACILITY ASSESSMENT SURVEY

+++++
LGA: Facility: Obs #:

Health Worker's Title: Community Health Officer, Community Health Supervisor, Community Health Aide, Senior Community Health Extension Worker, Public Health Nurse, Other:

Interviewer: Date: / /91

HEALTH WORKER INTERVIEW

1. Is there a written WORKPLAN for the clinic ... Y N
Can I see it ... Y N
Did you help develop this plan ... Y N

2. Is there a schedule for supervisory visits ... Y N
Can I see it ... Y N

3. How many times has your supervisor visited in the past six months? When was the last visit?

During these visits, how many times did he/she observe you:

Immunize someone
Treat malaria
Give ORT

How long was he/she here for that visit?

What did the supervisor do during that visit:

Talked to:

Activities:

Other:

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4. Have any planned supervisory visits been canceled in the last 6 months Y N

5. Has the supervisor explained to you the target populations for:

Measles Immunization Y N
Tetanus Toxoid Y N
Malaria Y N
Diarrhea Y N

Does the health worker know the target populations for:

Measles Immunization Y N
Tetanus Toxoid Y N
Malaria Y N
Diarrhea Y N

6. Do you have a written JOB DESCRIPTION Y N
Can I see it Y N

7. Do you have written guidelines or STANDING ORDERS for your work Y N
Can I see them Y N

8. Does your supervisor do anything to keep your technical skills up to date Y N
What does he do? _____

9. Is your performance evaluated regularly Y N
How? _____

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10. Do you have to submit any **REPORTS** Y N

Type of Report	Submitted To	How Often	Up to Date?
----------------	--------------	-----------	-------------

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Do you use the information from these reports to help you in your job Y N

11. What are the most significant **PROBLEMS** you face in doing your job?

Have you discussed these problems with your supervisor Y N

What was the response? _____

12. Are there any areas where you would like to receive more **TRAINING** from your supervisor Y N

What are these areas: _____

SP

FACILITY ASSESSMENT SURVEY

+++++
LGA: _____ **Facility:** _____ **Obs #:** _____

Supervisor's Title: _____ PHC Coordinator
 _____ EPI/CDD Manager
 _____ Head of Unit
 _____ Other: _____

Interviewer: _____ **Date:** ____/____/91
 +++++

*****SUPERVISOR INTERVIEW*****

1. Do you have a **MAP** of the LGA Y N
 Can I see it Y N

2. Do you know which villages/towns in the LGA
 do **NOT** have access to a health facility Y N

What villages/towns are those?
 Why don't they have access?

VILLAGE/TOWN	REASON
_____	_____
_____	_____
_____	_____

3. Can you tell me the **population** of the LGA Y N
 What is it? _____

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4. Do you know the **target populations** for...

Measles Immunization ..	Y	N	What is it?	_____
Tetanus Toxoid	Y	N	What is it?	_____
Malaria	Y	N	What is it?	_____
Diarrhea	Y	N	What is it?	_____

Have you explained these targets to the staff
in your clinics Y N

5. Do you have a written **WORKPLAN** Y N

Can I see it Y N

Who helped develop this plan? _____ No one
 _____ Health workers
 _____ Other: _____

6. Do you have a **SUPERVISORY SCHEDULE** Y N

Can I see it Y N

Did you give a copy to all health facilities
in the LGA Y N

7. Do you make the same number of visits to all
the people you supervise Y N

Do you make more visits to people who are
not performing well Y N

8. Have you had to cancel any planned supervisory
visits in the last 6 months because you did
not have transportation Y N

9. Do you have **JOB DESCRIPTIONS** for all the cadres
of health workers in the LGA Y N

Can I see them Y N

Do you have an extra copy of these
that I can take with me Y N

10. In the past 6 months, have you visited this facility to supervise health worker activities Y N

How many times? _____

During these visits, how many times did you see the health worker:

Immunize someone _____
Treat malaria _____
Give ORT _____

Do you have **supervisory checklists** to assess their performance Y N
Can I see them Y N

When was your last supervisory visit here? _____

How long were you here for that visit? _____

11. Are there **STANDING ORDERS** or performance manuals available for all categories of health workers ... Y N
Can I see them Y N

12. Do you have other ways of keeping the health workers up to date Y N

What are they: _____

13. Have you observed any **health education** activities in the last 6 months Y N

About how many:

Group sessions in clinic _____
Group sessions in community _____
Home visits _____

14. Do you have procedures you use to evaluate the performance of health workers Y N

What are they: _____

15. When did this facility (or other facilities in the LGA) last receive:

Drugs _____
Vaccines _____
ORS Packets _____
Supplies _____

16. Are there adequate quantities of all supplies and drugs in stock now Y N

17. Have there been any months since last January when you ran out of drugs or supplies Y N

How many months did it happen? _____

18. How many health facilities are in the LGA? _____

How many of these facilities are supposed to send you reports? _____

How often do they send reports? _____

How often SHOULD they send reports? _____

19. What do you think are the most important needs for training in order to improve health services?

20. What are the most significant problems you face in supervising health workers?

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21. Have you attended any training programs
in the last two years Y N

What were they about? Who sponsored them? Where were they?

Topic	Sponsor	Location
_____	_____	_____
_____	_____	_____
_____	_____	_____

Appendix B

FACILITY ASSESSMENT SURVEY EQUIPMENT, SUPPLIES, AND REAGENTS FOR "MALARIA DIAGNOSIS"

LGA: _____ Facility: _____ Type: _____ Date: _____

A. STAINS/REAGENTS

- | | | | |
|-----------------------------------|--|---|---|
| 1. Stains | | | |
| Giemsa stain | | Y | N |
| powder _____ liquid _____ | | | |
| Field stain | | Y | N |
| powder _____ liquid _____ | | | |
| 2. Methanol (analar) | | Y | N |
| 3. Absolute Alcohol | | Y | N |
| 4. Oil immersion | | Y | N |
| 5. Buffer salts | | Y | N |
| a. Disodium Phosphate | | Y | N |
| b. Potassium dihydrogen phosphate | | Y | N |
| 6. Methylated spirit | | Y | N |
| 7. Glycerol | | Y | N |
| 8. Xylol | | Y | N |

B. EQUIPMENT/SLIDES

- | | | | |
|---|--|---|---|
| 1. Microscopes | | | |
| Type: monocular _____ binocular _____ | | Y | N |
| Is it with light source? | | Y | N |
| 2. Slides | | Y | N |
| 3. Staining jar or rack | | Y | N |
| Specify | | | |
| If no, what do you use in staining your slides: _____ | | | |
| 4. Absorbent cotton | | Y | N |
| 5. Slide rack | | Y | N |
| 6. Timer or stop clock | | Y | N |
| Alarm: with _____ without _____ | | | |
| 7. Slide boxes | | Y | N |
| 8. Slide markers | | Y | N |
| 9. Slide adhesive | | Y | N |

C. MISCELLANEOUS EQUIPMENT, & SUPPLIES

- | | | |
|---|---|---|
| 1. Autolets
If no, specify the type of instrument
used for finger prick | Y | N |
| 2. Microhaematocrit centrifuge | Y | N |
| 3. Reader for microhaematocrit centrifuge | Y | N |
| 4. Capillary pipette
plain ___ heparinized ___ | Y | N |
| 5. Calculator | Y | N |
| 6. Tally counter | Y | N |
| 7. Analytical balance
Specify type: _____ | Y | N |
| 8. Graduated measuring cylinder
Specify graduation: _____ | Y | N |
| 9. White cell counting pipette | Y | N |
| 10. Neubauer chamber
Specify type: _____ | Y | N |
| 11. Bench aid handbook for diagnosis of malaria | Y | N |
| 12. Differential wall charts for
malaria identification | Y | N |
| 13. Do you do haemoglobin estimation?
If yes, by what method: _____ | Y | N |

Appendix C

Participants Facility Assessment Survey Pankshin Local Government

Name	Title	Location
Danladi Dandam	Higher CHS	BHC Kabwir
Patrick Barangkum	PCHO	RHC Ampai
Martina Fom	Higher CHS	HC Heipang
Janet Nanbyt	SHS	MCWC Pankshin
Tokksie Sunday	CHS	HC Barkin Ladi
Joseph Gokir	CHS	Applicant
Bulus Ari	SHS	EPI Unit, B/Ladi
Nuhu Abdullahi	SHS	EPI Unit, Pankshin
Hannatu Yakzum	SCHO	HC Hoss
Rifkatu Akims	ACCHO	PHC Secretariat, B/Ladi
Ruth Gbefwi	PPHO	PHC T/Wada, Jos
Zainab Washik	CHS	Staff Clinic SHT Zawan
Noel Shok	Sister	HC Heipang
B. Abednego	CHO	HC Tal
Anah Selzing	SNS	MCWC Bukuru
Rose Anpe	CHS	Staff Clinic SHT Zawan
Rifkat Stephen	CHA	Health Dept. Pankshin
S. Ashigabu	PCHO	SHT Pankshin
Augustina Haruna	PNS	Practice Area SHT Kuru
*Kubra Ahmed	Nurse Tutor	CEU Zawan
*Peter Gokir	PHC Tutor	CEU Zawan

**Facilitators*