Sustaining Health Worker Performance in Burkina Faso

By
Karabi Bhattacharyya, Sc.D.
Lonna Shafritz
Judith A. Graeff, Ph.D.

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BASICS
1600 Wilson Boulevard, Suite 300
Arlington, VA 22209 USA
Phone: 703-312-6800
Fax: 703-312-6900
Internet: infoctr@basics.org
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Acronyms

BCG   Bacillus Calmette Guerin (vaccine against tuberculosis)
DPT   diphtheria, pertussis, tetanus vaccine
EPI   Expanded Programme on Immunization (see also PEV)
FGD   focus group discussion
HC    health center
HEALTHCOM Communications and Marketing for Child Survival (USAID–funded project)
HW    health worker
IEC   information, education, and communication
KAP   knowledge, attitudes, and practices
MI    Measles Initiative (USAID program)
MOH   Ministry of Health
OPV   oral polio vaccine
PEV   Programme Elargi de Vaccination (see also EPI)
QA    Quality Assurance Project (USAID–funded project)
REACH Resources for Child Health (USAID–funded project)
UNICEF United Nations Children’s Fund
USAID U.S. Agency for International Development
WHO   World Health Organization
1. Introduction

Among the goals set during the World Summit for Children in September 1990 was a 90 percent reduction in measles incidence worldwide and a 95 percent reduction in measles mortality by 1995. To help reach these goals, the U.S. Agency for International Development (USAID) launched the Measles Initiative (MI) in three countries in Africa: Kenya, Niger, and Burkina Faso.

The objective of the MI was to assist the governments of those countries in reducing the impact of measles while strengthening the overall management of their national Expanded Programmes on Immunization (EPI). The MI emphasized integration of the measles vaccine into the standard series of childhood immunizations administered during five sessions in a child’s first year of life.

The Measles Initiative in these three countries was carried out with the collaboration of three projects within USAID’s Child Survival program: Resources for Child Health (REACH), the Quality Assurance Project (QA), and Communications and Marketing for Child Survival (HEALTHCOM). This paper outlines the results of the MI in Burkina Faso, where HEALTHCOM took the lead, working closely with the regional and central level Programme Elargi de Vaccination (PEV) staff of the Ministry of Health (MOH).

The population of Burkina Faso was in generally poor health at the start of the MI. According to 1989–90 data:

- The infant mortality rate was 133 per 1,000 live births.
- The mortality rate of children under age 5 was 228 per 1,000 population.
- Average life expectancy was 48 years.
- Per capita GNP was $320.
- Over 90 percent of the population of 9 million lived in rural areas.
- Adult literacy was only 18 percent.

EPI services were provided through fixed centers which served people within a radius of four kilometers and provided outreach services to others beyond that range.

The MI focused on two provinces—Boulkiemdé and Passoré—that had particularly low coverage rates for the measles vaccine. Table 1 provides a brief health profile of these two provinces. Note that less than a fifth of all children were fully vaccinated by age 1.
Table 1. Characteristics of Measles Initiative Areas in Burkina Faso, as of 1989–1990

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Boulkiemdé</th>
<th>Passoré</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>426,000</td>
<td>248,000</td>
</tr>
<tr>
<td>Number of fixed EPI centers</td>
<td>22</td>
<td>10</td>
</tr>
<tr>
<td>DPT1 coverage*</td>
<td>78</td>
<td>90</td>
</tr>
<tr>
<td>Measles coverage*</td>
<td>29</td>
<td>36</td>
</tr>
<tr>
<td>Children fully vaccinated by age 1 (percent)</td>
<td>17.4</td>
<td>9.2</td>
</tr>
<tr>
<td>Children fully vaccinated by age 2 (percent)</td>
<td>32.1</td>
<td>39</td>
</tr>
</tbody>
</table>

* Coverage is the percentage of children under age 1 that received the vaccine.

Preliminary Assessments

As part of the MI, a preliminary assessment was conducted in each of the three program countries. The assessments included several data collection activities:

- a review of national-level immunization policies
- house-to-house surveys in areas targeted for the MI to ascertain the level of coverage for measles and other vaccines
- surveys to assess both the mothers’ knowledge, attitudes, and practices (KAP) regarding childhood immunizations and the mothers’ sources for health information
- assessments of local health facilities to ascertain their size, level of resources, staff levels, training, and performance
- focus group discussions (FGD) and in-depth interviews with selected mothers and health providers to identify the determinants of health workers’ behavior

The results of the preliminary assessment in the two targeted provinces in Burkina Faso showed that in 1992 vaccination coverage was approximately 35 percent, with more than half the doses given after age 1 (the vaccination schedule calls for five contacts before
age 1 to ensure full immunization). The assessment indicated that one problem was a large number of drop-outs—parents that began but did not finish the series of five vaccination sessions during their child’s first year. Other problems included caretakers’ reluctance to immunize children who were mildly ill, inadequate information on the part of parents and caretakers about measles and immunization, and inappropriate behavior on the part of health workers (HWs), regardless of their level of technical proficiency.

The health facility assessment included observation of vaccination sessions and exit interviews among patients. The assessment included sessions at fixed centers and those conducted as part of the outreach program. Health workers were shown to provide little or no counseling to clients during the sessions, despite the fact that most mothers said they wanted more information from health workers about the vaccination(s) their child received (see Measles Initiative, *Summary of Assessment Findings*, Washington, DC: USAID, March 25, 1993).

Overall, the preliminary assessment indicated that access to EPI/PEV services was good in the two provinces, primarily because of the outreach services. However, the drop-out rate was high, and those children who did complete the vaccination schedule often were late in doing so. The supervision of HWs was shown to be inadequate, and HW training did not include communication activities.

The structure of the vaccination session itself was shown to be problematic. Little time was allowed for HWs to communicate with clients, and many mothers remained uninformed about the value of vaccinations, the vaccination schedule, and the potential side effects—even immediately following the session. In addition, patients endured long waits before being seen, and some mothers cited the cost in terms of time as a barrier to completing the vaccination schedule.

Although clients considered the HWs to be extremely credible sources of information, the HWs did not promote EPI/PEV among mothers. They lacked training in information, education, and communication (IEC) activities; were given no established key messages or communication plans; and were not supervised in communication activities.

**Intervention Strategy**

The Measles Initiative intervention strategy developed for Burkina Faso sought to improve vaccination coverage before age 1—that is, to increase the number of children who received the full series of vaccines during the five immunization contacts scheduled during the child’s first year of life. There were three objectives:
• to mobilize the population to participate actively in the program by disseminating information about immunization
• to increase access to vaccination services
• to improve the performance of HWs by helping them to treat mothers better and to provide mothers with more information during vaccination sessions

The following activities were undertaken in pursuit of these objectives.

Training in Interpersonal Communication
Health workers were trained to improve their interpersonal communication skills. They were given essential messages to convey to clients about the value of immunization, the proper vaccination schedule, and the potential side effects. The HWs were trained to perform key behaviors during vaccination sessions, including smiling, greeting the mother, congratulating the mother on bringing her child for vaccination, playing with the child, and responding to the mother’s questions. A videocassette developed for the training sessions also demonstrated how HWs can behave and communicate more effectively with mothers during outreach vaccination sessions when time is limited.

Performance Review and Feedback
Approximately six months after the initial training, the HWs’ supervisors provided them feedback about their performance in communicating with mothers. The feedback session included a review of the individuals’ performance profiles—the behaviors exhibited and the messages given. Figures 1 and 2 (in Annex A) show one HW’s performance profile and the performance of the group of similarly trained HWs. Each HW was able to compare his/her performance with the group as a whole by placing the individual bar graph over the group bar graph (which was much more darkly shaded and therefore showed through the overlay).

Radio Program and Song
A ten-episode radio drama was developed to tell the story of a husband and wife (complete with family members, HWs, and a helpful auntie) from their marriage through the time when they have completely vaccinated their first child before age 1. Each episode presented a dilemma or problem based on a constraint identified during the formative research, and the situation was appropriately resolved for a happy ending. Each episode of the program transmitted a key message in a sympathetic, non-didactic manner.
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For example, in one episode, the child had a fever following a vaccination. The parents thought the vaccine was harmful and did not want to give the child any other vaccines. The helpful auntie showed them how to reduce the fever, and the village HW reassured the parents that it is not uncommon to have such a reaction, which is generally temporary.

Each episode was about 15 minutes long. The entire ten-episode program was aired during a program that was most popular among mothers participating in vaccinations—"Menage à musique"—on Tuesday mornings on rural radio. The program was aired from March to May 1994, and again from October to December 1994.

Each episode began and ended with one segment of a song developed for the Measles Initiative, which identified the radio program. Following the song, a narrator briefly summarized the previous episode. At the end of the episode, the following week’s situation was presented to create additional interest among listeners and to encourage them to listen to the whole series. The program closed with another segment of the song that included the key message developed during that episode.

The song was written by a local songwriter as a love song. It was sung by a man who extolled the behavior of Awa, a mother who successfully overcame all obstacles to vaccinate herself and her child. The song encouraged all Burkinabé women to emulate Awa. The song was designed to be aired separately, as well as during the radio program.

Print Materials
A collection of print materials was developed. Each type of material reinforced the messages conveyed by the radio program and the other print materials, using the same characters, images, and messages.

- **Flipchart:** A flipchart was developed to facilitate group health talks. The flipchart followed the story line of the radio program. It consisted of 12 laminated pages, 12” × 16” in size. The cards were printed in brown and white, except for the vaccination cards, the red cross, and the cover, which were printed in color. The reverse side of each image contained key messages and notes for HWs to use to make interactive discussions with mothers more effective. A hundred flipcharts were produced and distributed to the provincial PEV coordinators in early June 1994—49 to Boulkiemdé (for 35 health centers) and 38 to Passoré (for 27 health centers). The extras remained at the PEV central office in Ouagadougou.

- **Interactive Vaccination Form/Sticker:** An interactive, illustrated vaccination form (hereafter, the “interactive form”) was originally designed as an illustrated explanation of the vaccination card for distribution to mothers. The interactive form is 12½” × 10½”, printed in multiple colors. It uses a drawing of a child
progressing through various developmental stages to illustrate the five points at which a child should be vaccinated. It also repeats the image of a HW vaccinating a child that appears in the flipchart.

The interactive form also was designed to encourage communication between HWs and mothers about completing the vaccination series. Five boxes were printed at the top of the form for HWs to cross off as the child received each vaccination. The form was a reminder to the mothers of how many vaccinations remained.

A 3” round sticker of a healthy, happy child was developed in conjunction with the interactive form. At the bottom right of the form was a blank space for the sticker, which was to be given to mothers only after they had completed the vaccination series for their child. The sticker transformed the interactive form into a diploma.

Ten thousand interactive forms and stickers were produced, and 4,800 of each were distributed to the provincial PEV coordinators in both provinces in early June 1994. The remainder of the forms and stickers were kept at the PEV central office in the capital.

- **Poster**: A thousand copies were produced of a larger version of the interactive form (19½” x 16½”). The poster had all five boxes checked and the sticker in place to indicate what the interactive form would look like once a child was completely vaccinated. The PEV coordinators in Boulkiemdé and Passoré were given 370 and 310 copies, respectively, in early June 1994 for distribution around the provinces. The remaining posters were given to other provinces or kept in stock for future use at the PEV central office.

**Research Objectives**

The Burkina Faso program provided an opportunity for HEALTHCOM to research the effects of various interventions on HWs’ performance. This research focused primarily on the interpersonal communication skills of HWs. The specific research objectives were:

- to evaluate over time the impact of training on HWs’ performance during vaccination sessions and on client knowledge and satisfaction
- to assess the impact that past performance had on HWs’ performance and on client knowledge and satisfaction
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- to track the distribution, exposure, and use of informational print materials and a radio program
- to assess the impact of the print materials and the radio program on mothers' knowledge.
2. Methodology

A longitudinal observational study was conducted in Burkina Faso to follow levels of HWs’ performance after they received training to improve their interpersonal communication skills. The interpersonal communication skills of the HWs were observed at three points: during training (Time I), a month after training (Time II), and six months after training and following a feedback session with their supervisors (Time III). Data were also collected on the distribution and use of print materials and exposure to the radio program and song among both HWs and mothers.

Figure 3 (in Annex A) illustrates how the operations research fit into the overall behavior change program. The middle row of the figure shows the “behavior change route”: trainers taught HWs who in turn taught mothers. The assumption is that this educational process will lead to increased vaccination coverage, assuming other factors (such as access) remain constant. The bottom row of Figure 3 shows the interventions that were used with various groups of people. Finally, the top row shows the operations research methods used to measure the impact: HW practices were measured through observation, and mothers’ knowledge and satisfaction were measured through interviews (the specific data collection methods are discussed in more detail below).

Observations

Thirty HWs who had been trained in interpersonal communication skills were observed in Boulikiemdé and Passoré, and 30 untrained HWs were observed in the two control provinces of Oubritenga and Bazega for a total of 60 HWs observed. Because HWs often are stationed in different provinces during the course of their careers, there is little differentiation between the health services and personnel of the various provinces, beyond language and minor climatic and environmental differences. Therefore, the control provinces were selected because the primary language spoken (Mooré) was the same as the intervention provinces and because they were adjacent to the intervention provinces.

The HWs to be trained were selected based on whether they were currently based in a health center and performed vaccinations on a regular basis. The HWs in the control group were observed during regularly scheduled vaccination sessions.

Vaccination sessions were often broken into two parts—card verification and vaccination—with a different HW performing each task. Mothers must first wait in line for a HW to verify which vaccine(s) should be given, and then they must wait in a
separate line for the actual vaccination(s). Using an observation checklist, trained and control HWs were observed in their roles as both vaccinators and card verifiers.

Data collectors who had no connection to the health delivery system were recruited from among fourth-year sociology students at the University of Ouagadougou. They were trained for three days to observe HWs during their interactions with mothers. The observers did not know which HWs were trained and which were untrained. Although the HWs knew that they were being observed during a particular day, they did not know which specific client interactions were being observed. Each mother was given a card with a number, and only the observers knew which numbers were to be observed.

The group of trained HWs was observed at three points, while the control group of HWs was observed twice. The trained group was observed once during the field practice of their training (Time I), about a month after training when they had returned to their routine work site (Time II), and six months later, after a feedback session with their supervisor (Time III). The control HWs were observed twice, corresponding to Time I and Time III of the trained group.

The observation checklist included both HW behaviors and messages to be given to the mother (see the sample form in Annex B). The behaviors included smiling at the mother, greeting her, congratulating her for bringing her child to be vaccinated, playing with the child, and responding to questions. The key messages included telling the mother when to return, what to do to treat side effects, and how many visits remained. The same form was used for both control and trained HWs.

**Exit Interviews**

Following vaccination sessions during which HWs were observed, data collectors conducted exit interviews with the mothers involved as they left the health facility. They asked these mothers questions about what they should do for key side effects such as fever and sores, when they should return, and which vaccination(s) their child had received. They also asked mothers how they were treated by the HWs, whether they had been respected, and whether the HW had answered their questions. (See Annex C for the exit interview form used.)
Methodology

Mothers' Exposure to Communication Materials

In June 1994, 872 mothers at 31 fixed vaccination sites in the two intervention provinces were interviewed while waiting for vaccinations. These interviews were used to assess the level of exposure to and message/content recall of the ten-episode radio program broadcast mid-March to mid-May. Mothers were also asked how frequently they listened to the radio in general.

In November 1994—five months later—584 mothers at 31 fixed vaccination sites also were interviewed. The interviewers showed them the interactive form, sticker, and flipchart one at a time, and asked the mothers if they had seen each before and what it had taught them. They also asked mothers about their exposure to the radio program and the song. Finally, they asked mothers two questions related to their knowledge about vaccinations. (See Annex C for the forms used to assess mothers’ exposure to the communication materials.)

Health Workers' Feedback on Communication Materials

Each of the 30 trained health workers was interviewed following the second follow-up observation conducted during October–December 1994. They were asked about their use of the interactive form, sticker, flipchart, and poster. They were also asked their opinions about the relative utility of these materials to themselves and to mothers. Finally, they were also asked whether they had heard the vaccination radio program or song and what they perceived to be their purpose. (See Annex D for the health worker interview form.)

Tracking of Print Materials

A form was developed and distributed to track the receipt/distribution and disposition/usage of each of the four print materials—flipchart, interactive form, sticker, and poster—at the health centers. These were given to the provincial PEV coordinators in August 1994 to be distributed to all health centers in the two intervention provinces. Each health center was to complete one form during each of the three months of the tracking period and to return them to the project office.

It proved difficult, however, to obtain comprehensive data on the distribution and dissemination of the print materials. Only 15 of 22 health centers Boulkiemdéd returned data on materials distribution forms, and only 7 of 10 health centers in Passoré did so. Half of the forms received included information only for a single month, and the other
half (i.e., those from Passoré) included information for two to four months. In addition, many of the returned forms were completed incorrectly.
3. Results

Training of Health Workers

The data from the observations of health workers were used to measure HW performance by means of two scales. The first scale, "health worker content," described which messages the HWs gave to mothers. The more messages a HW gave, the higher his or her score. The second scale measured "health worker behavior" that was considered to be important for establishing a rapport and mutual respect between the HWs and the mothers. The more positive behaviors were exhibited, the higher the score.

The data from the exit interviews with mothers also were measured according to two scales, which corresponded to the HWs' performance scales. The "mother knowledge scale" indicated mothers' knowledge about the immunization schedule and potential side effects. The "client satisfaction scale" gauged mothers' perceptions of HWs’ behavior. For both scales, a higher score indicated greater knowledge or satisfaction.

Figure 4 (Annex A) compares the measurements from the four scales for trained HWs and untrained HWs at two times. The first measure assessed the impact of training during the field practice that immediately followed (Time I, April–May 1994); the second measured performance after the trained HWs’ feedback session (Time III, November 1994). Time II (June 1994)—about a month after the training, when the HWs had returned to their sites—is not presented because there was no measurement of control HWs at that time. At both times, the trained group showed higher scores for HW performance and for mothers’ knowledge and satisfaction.

Figure 5 shows the scores for the trained group of HWs measured at all three times. HW content dropped after the HWs returned to their work site (Time II) and then improved after the feedback session (Time III). HW behavior dropped with return to work site and continued to drop, a trend discussed further below. The scores for mothers’ knowledge and client satisfaction continued to increase over the period, possibly due to the influence of other elements of the communication strategy.

Figure 6 presents the scores for HW performance and mothers’ knowledge and satisfaction over time for the control group of HWs. As the graph shows, HW content, mothers’ knowledge, and client satisfaction remained fairly constant at very low levels. Average HW behavior scores fell during the period.
Key Messages Delivered

In order to understand the trends of HW performance in greater detail, the scores for HW content and HW behavior were broken down according to the specific behaviors. The HWs in the intervention provinces were trained to give a few key messages to mothers:

- to protect the vaccination card
- the date on which to return
- general information about the vaccination schedule
- how many visits remained
- how to treat side effects, specifically fever and sores

Figure 7 shows the messages delivered by the trained HWs at the three different observation times. Each individual message was delivered between 20 and 60 percent of the time at Time I. The extent to which all messages were delivered dropped at Time II and then rose again following the feedback session at Time III, with the exception of protecting the card which continued to drop after the feedback session.

Figure 8 shows the extent to which the key messages were delivered by the control group of (untrained) HWs. Overall, the control group gave the specific messages in very few of their interactions with mothers throughout the period. The exception was delivery of the message about how to treat the side effect of fever, which increased considerably between Time I and Time III. The reason for this increase is unclear.

Behaviors Exhibited

Figures 9 and 10 show how often the HWs carried out the behaviors that were included in the training: looking at the vaccination card, looking at the mother, responding to mother’s questions, smiling at the mother, greeting the mother, congratulating the mother, playing with the child, and waiting for the child to be calm.

Figure 9 shows the behaviors exhibited by the trained group of HWs. At Time I, the percent of interactions during which the behaviors were exhibited ranged from 20 percent (playing with the child) to close to 98 percent (looking at the card). After HWs had returned to their work sites, these percentages dropped for each of the behaviors. Following the feedback session, the frequency of the behaviors went back up, sometimes surpassing the original values, for all behaviors except greeting the mother and
congratulating the mother. During the feedback sessions, HWs indicated that they did not think they should greet and congratulate mothers; they felt that it was the role of the mothers to greet them according to the local custom. This explains why those behaviors did not increase after the feedback session.

The control group of HWs smiled, played with the child, and waited for a calm child only during a very small percentage of their interactions with mothers. As shown in Figure 10, this remained constant over time. Control HWs responded to questions in about a third of the interactions, and looked at the card and at the mother about 70–80 percent of the time.

The HW training also included verifying mothers’ knowledge of key information. Specifically, HWs were taught to ask open-ended questions to verify that mothers knew when to return, how many visits were left, and what should be done for fever and sores. Figure 11 shows the percentage of interactions during which trained HWs verified the mothers’ knowledge. As for the other behavior indicators, the verification behaviors became less frequent between Time I and Time II and then rose after the feedback session. (The control group of HWs verified mothers’ knowledge only in a very few interactions.)

**Exposure to Radio and Print Materials**

The exposure of the mothers to the various communication materials was assessed by interviewing a non-random sample of 584 mothers who were waiting for vaccinations at fixed vaccination sites in the two intervention provinces. These interviews indicated that exposure was quite high (see Figure 12).*

Just over half (56 percent) of mothers said they had seen the interactive form, and 10 percent said they had one of the interactive forms. About a third (32 percent) of mothers said they had previously seen the sticker. Nearly half (48 percent) of mothers said they had been shown the flipchart, and a third of these (16 percent of the total) said they had seen the flipchart more than once.

About half (48 percent) of mothers said they had heard the song on the radio, with 80 percent of these (38 percent of the total) saying they had heard it more than once. About the same number (49 percent) said they had heard the radio program—each of the 10

* These results are likely to be higher than those resulting from a random sample of mothers, because the mothers interviewed were performing the desired behavior—attending vaccination sessions—and were therefore more likely to have greater knowledge about immunization.
episodes had aired twice since March—and three-fourths of these (38 percent of the total) said they had heard more than one episode.

This level of exposure to the radio program is similar to that recorded in June 1994, in the research conducted after the first airing of the radio program. In June, 43 percent of the 872 non-randomly selected respondents said they had heard the program. (This represents 74 percent of those that could have been exposed to the program, since only 58 percent of respondents said they ever listened to the radio.) Of those who heard the program, 13 percent said they had heard one to three episodes, 8 percent had heard four to six episodes, and 4 percent had heard seven to ten episodes (25 percent did not specify). The first five episodes attracted larger audiences than the last five: 13 percent of mothers in June correctly mentioned Awa when asked to name the main character.

When asked what the interactive form and sticker taught them, over 70 percent of the mothers mentioned the word “vaccination.” Mothers mentioned numerous benefits when asked how these materials helped them, including: remembering to get vaccinations, understanding and protecting children, acquiring good health, dealing with side effects, seeing Awa as an example to follow, and bringing peace/joy to the family.

Over half of the mothers interviewed knew that a child should be vaccinated against measles at nine months, which compares favorably to the 1992 baseline KAP results of under 15 percent.* As Figure 13 illustrates, mothers who had been exposed to any of the materials were more likely (60–75 percent) to know the correct answer than those who had not (38–48 percent).

Over 80 percent of the mothers knew that five visits were required in order for a child to be completely vaccinated. Again, those who had been exposed to any one material were more likely (87–96 percent) to know the correct answer than those who had not (71–80 percent) (see Figure 14).

The more materials the mother was exposed to, the more likely she was to know the correct age for measles vaccination and the correct number of visits for complete vaccination. Only 27 percent of mothers who had not seen/heard any of the materials knew the correct age for measles vaccination, compared to 43 percent of those exposed to one material, 58 percent of those exposed to three materials, and 78 percent of those exposed to all five knew the correct age (see Figure 15).

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* The baseline research was a random household survey conducted with the same households who participated in the vaccination coverage survey.
Results

The results were similar for knowledge of the number of vaccinations required. While 58 percent of mothers not exposed to any materials knew the correct answer, 91 percent of those exposed to three of the materials and 97 percent of those exposed to all five knew the answer (see Figure 16).

Health Worker Feedback on Communication Materials

Health workers most often considered the flipchart to be the most useful of the four materials (14 responses), followed by the interactive form (9) and the poster (4) (see Figure 17). The sticker was most often considered to be the least useful material (12), followed by the flipchart (5) and the poster (4). No one described the interactive form as least useful.

As Figure 18 illustrates, HWs most often listed the interactive form and the flipchart as those materials most understood by mothers (11 and 10 responses, respectively). The poster was cited five times, and the sticker once. However, the flipchart was also most often considered to be least understood by mothers (9), followed by the sticker (7), the poster (4), and interactive form (1).

HWs perceive the interactive form to be the material most preferred by mothers (11 responses) (Figure 19), followed by the flipchart (8) and the poster (3). But, when the HWs were asked which of the materials they would choose if they could only choose one, they chose the flipchart most often (15), followed by the interactive form (9) and the poster (5).

The main consideration HWs used in rating the materials was the ease/difficulty of understanding it. Table 2 outlines other assessments offered.

Less than 25 percent of the HWs were able to explain accurately how the interactive form and sticker should be used together—not all specified that the sticker was to be affixed to the blank space of the interactive form only after the child was completely vaccinated. A few others mentioned that they discussed both with the mother and that the sticker was to encourage mothers to completely vaccinate their children, but they did not specify that it was supposed to be affixed to the blank space on the interactive form.

Only 5 of the 30 trained HWs mentioned having a problem using the print materials, with reasons including problems reading the written Mooré (which is not a written language), speaking Mooré (for someone from another ethnic group), having too many people at a
health discussion, and, at the beginning, difficulty in getting women to understand the images (2 responses).

Of the 30 HWs responding, 22 said they had heard the song (19) and/or program (13) on the radio. In general, their perceptions of the purpose of the radio materials was “to sensitize” or inform mothers. A number of HWs also used the words “to educate” about the vaccination calendar, different vaccines, and/or the advantages of vaccination or “to motivate” mothers to vaccinate their children. One HW said that the purpose was to encourage discussion on the subject.

According to the HWs, the materials were distributed to different HWs at different times. Seven reported never having received any of the four print materials, and an additional nine did not remember or couldn’t specify when they received them. The remaining 14 said they had received the materials one to six months earlier (the average was three or four months for each material). HWs from Passoré were more likely to say they had received the materials five to six months earlier, while those from Boulkiemdédé were more likely to say three or fewer months ago (see Table 3).
On average, HWs had been using these materials for two to three months—or one month less than the period they had the materials. Only about half (16 of 30) responded to this question, and the responses ranged from one to six months. Again, those from Passoré were more likely to say the materials had been in use for longer time periods than those from Boulkiemdé.

<table>
<thead>
<tr>
<th>Material</th>
<th>Boulkiemdé</th>
<th>Passoré</th>
<th>Average: Both Provinces</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Received</td>
<td>Used</td>
<td>Received</td>
</tr>
<tr>
<td>Flipchart</td>
<td>1.7</td>
<td>1.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Poster</td>
<td>2</td>
<td>1.9</td>
<td>3.7</td>
</tr>
<tr>
<td>Interactive Form</td>
<td>2</td>
<td>1.9</td>
<td>4.6</td>
</tr>
<tr>
<td>Sticker</td>
<td>1.8</td>
<td>2</td>
<td>4.4</td>
</tr>
</tbody>
</table>

### Tracking of Print Material: Distribution and Usage

**Flipchart**

Each health center reported having received one flipchart (as planned). The centers reported that flipcharts were used a total of 102 times, or an average of three times per reported month (38 months were reported). Use per health center ranged from 0 to 10 times per month, with most health centers reporting below the average of three times per month. It is difficult to determine whether this is a good, fair, or poor level of utilization, because the number of vaccination sessions held during the same months at each health center was not reported.

The flipcharts were used more often at fixed facilities. Only 17 percent of the reported times used were in villages—the main situation for which the flipchart was developed—and most of the village use was in Passoré, which generally relies heavily on mobile vaccination services. The estimated number of people participating in the use of a flipchart ranged from less than 10 to more than 150 (the mode was 10–29 in Boulkiemdé and 50–59 in Passoré).
Sustaining Health Worker Performance in Burkina Faso

Posters
Each reporting health center received 4–16 posters, with most health centers in Boulkiemdé reporting receiving 6–10 and most in Passoré receiving 10-16. About a fifth of the posters were used at the district health center, 15 percent were given to schools, 12 percent were given to villages, and 5 percent were used in markets and in the prefecture. The largest percentage (29 percent) was kept in storage. The disposition of the remaining 8 percent was not reported.

Interactive Form and Sticker
In Boulkiemdé, most of the HCs that reported receiving interactive forms and stickers (only 10 of 15 reporting) said they received 75 of each. In most cases, they were given out to mothers in equal quantities (indicating that the purpose of the sticker was not understood). In a number of cases, all interactive forms and stickers were distributed within a month of being received.

In Passoré, two health centers reported receiving 360 interactive forms and 200 stickers, and five others reported receiving 200 interactive forms and 100 stickers. These health centers were less likely than those in Boulkiemdé to have given out all the interactive forms in a one-month period. In addition, the number of stickers given to mothers was generally 50 percent or less than the numbers of interactive form given to mothers, which mirrored the proportion received.
4. Conclusions and Recommendations

Conclusions

Performance feedback is an important component of the adult learning process. Adults are learning constantly, not just during training. Therefore, performance feedback is a critical component of any program in which long-term learning and performance quality are valued. The hypothesis behind the intervention to increase coverage of measles immunizations in Burkina Faso was that the behavior of HWs could affect the number of mothers who returned to complete the vaccination series, including the measles vaccine. The program tested whether feedback could maintain adequate levels of effective HW performance following training.

To be effective, feedback sessions need to include some objective, quantified data on a person’s or group’s performance that can be readily compared with other performance measures. These other measures could include the performance of others or of oneself over time or in different conditions. Feedback sessions also should include discussion and problem-solving so that individuals can interpret the objective data, see how their own performance can be improved, or determine whether the performance criteria need to be changed.

In Burkina Faso, HWs received quantified feedback on their performance which they compared to their own performance over time and to an untrained (control) group. They were presented with simple bar graphs of their levels of performance. They could superimpose their performance graph on the performance graph of the untrained control group of HWs. (See Figures 1 and 2 in Annex A for examples of the feedback sheets given to HWs.)

HWs found this feedback interesting, and it seemed to have strengthened several of the trained messages and behaviors, which had deteriorated over time. The key messages for which delivery improved after feedback were information about caring for fever and sores, number of visits remaining, and the date on which to return (see Figure 7). Improved behaviors included looking at mother, responding to questions, and waiting for a calm child (see Figure 9).
In the discussion that followed the feedback session, however, many HWs disagreed with some of the behaviors they had been trained to perform, specifically, greeting and congratulating mothers on bringing their children for vaccination. The HWs said that, in Burkina Faso, it is the role of the guest to greet the host (i.e., the mother should greet the HW) and that they were uncomfortable going against the local customs of politeness. Indeed, these behaviors continued to decline after the feedback session, as shown in Figure 9. An effort should be made to find what the HWs could do to make mothers feel comfortable at the beginning of a vaccination session that would be culturally acceptable.

The performance of most trained behaviors declined with the passage of time, as the trained HWs returned to their work sites and faced time pressures and other constraints. Nevertheless, performance levels were shown to improve following a feedback session that allowed HWs to compare their performance with themselves (i.e., over time) and with others (e.g., untrained colleagues) and to discuss problems. Feedback sessions therefore should be held periodically to ensure adequate levels of performance. The optimal time between feedback sessions has not been documented and should be determined on a local basis.

Feedback sessions can be brief, particularly compared to training workshops, and can be held locally, compared to the need to conduct large training programs at the regional or national level. Therefore, the investment in multiple feedback sessions need not equal the investment in initial training. The relative ease and low cost of implementing feedback sessions as a component of routine supervisory visits is an important programmatic consideration.

In Burkina Faso, much attention was paid to the design, distribution, and use of educational materials. HWs rated the materials according to which they found most useful and which they felt the mothers best understood. The sticker was given the lowest score. The sticker was designed to be given to mothers at the completion of the vaccination series as a way to motivate them to follow through with all vaccinations. This idea was not fully understood by the HWs and therefore was not communicated in a useful way to mothers. The HWs rated the sticker to be the least useful material and considered it the least understood by mothers (see Figures 17 and 18). Hands-on training with the finished product should serve to decrease the inappropriate use of materials and eliminate problems and delays in distribution of materials to the work site.

Interestingly, the interactive form (to which the sticker was to be affixed) received high ratings from the HWs. This shows that the HWs appreciated materials for individual consultation and were not only interested in materials for group sessions (i.e., the
Conclusions and Recommendations

The data show that if given a choice of materials, HWs will use what they prefer, regardless of the intended use of the materials or the preferences of clients. For this reason, HWs should be involved in selecting and designing such materials.

The data also show geographic differences in how and to what extent HWs use educational materials. This variation could be due to differences in the quality of follow-up or supervision from provincial authorities. Or, it could simply be due to the fact that one province has fewer fixed vaccination sites and does more outreach and mobile services. The latter could be a major reason why the materials were distributed earlier to the health centers and used in a more rigorous manner in one province which conducted more outreach services—the materials were most likely to be distributed directly to the HWs by the mobile teams than to be handed down to HWs through multiple organizational levels.

In addition to revealing important lessons in materials and training design, the data demonstrated the effectiveness of the practice of using multiple channels to communicate the same few, key messages to a population. Mothers’ knowledge increased in a stepwise fashion with every increase in the number of materials seen or heard (see Figures 15 and 16). Just as HWs’ preferences varied for the types of materials, mothers varied in how they best learned. In trying to increase knowledge and change practices within a particular population, the best results are achieved by using an array of channels to deliver the same messages.

Recommendations

- HWs should be directly involved in the design of communication protocols with mothers. This includes the behaviors to perform, the key messages to communicate, and the types of materials to use in different communication situations. HWs also should have substantial input into the design of their training and follow-up sessions.

- There should be a minimum number of messages to be delivered and behaviors to be exhibited, and these should be as specific as possible. In other words, the behavior should not be “show mother respect,” but instead should be broken in a specific, observable actions such as smiling at the mother.

- Training alone is not enough. Regular feedback and supervision in conjunction with training are essential to maintaining adequate HW performance. HWs should be monitored and supervised on the specific behaviors, messages, and visual aids in use.
- Actually observing performance in supervisory and feedback sessions can be very effective in maintaining HW performance. Observation gives the HW a reflection of his/her own performance, helps him/her to identify which behaviors to work on, helps point out potential problems, and assists in the development of solutions.

- HWs in Burkina Faso were very concerned that they did not have enough time to deliver to mothers all the messages they were trained to give. Using verification questions can help HWs save time by allowing them to avoid explaining something a mother already knows. Asking mothers open-ended questions such as, “What should you do for fever?” helps determine what the mother knows and can therefore save time.

- After materials are produced, time should be spent explicitly training HWs how to use each material, including a discussion of the objectives and target audiences. This training should include rigorous role playing and feedback. In addition, training should take place with finished materials (not with materials in draft form, several months prior to availability, as was the case in Burkina Faso).

- A comprehensive, integrated communication program with multi-media channels that provide the same themes and messages can be effective in increasing mothers’ knowledge.
Annexes
Annex A: Figures
Figure 1
Behavior of Health Worker No. 101
(Observed 4 times, given at feedback session)

![Bar chart showing the percentage of interactions with mothers at which behaviors were exhibited during training and in the field.](chart.png)
Figure 2
Behavior of Trained Health Workers
(30 health workers, given at feedback session)

Bar chart showing the percentage of interactions with mothers where behaviors were exhibited:
- Contratulates Mother
- Smiles at Mother
- Greets Mother
- Looks at Mother
- Looks at Card

Legend:
- During Training
- In the Field
Figure 3
Behavior Change Program in Burkina Faso

Operations Research
- Observations
- Exit Interviews

Behavior Change Route
- Trainers' Practices
- Health Workers' Practices
- Mothers' Knowledge & Satisfaction
- Mothers' Practices

Intervention
- Training
- Feedback
- Training of Trainers
- Print Materials & Radio
- Health Worker Contact
- Print Materials & Radio
Figure 4
Performance of Health Workers: Trained and Control Group

Total Points*

<table>
<thead>
<tr>
<th>TIME I</th>
<th>TIME III</th>
</tr>
</thead>
<tbody>
<tr>
<td>(April-May 1994)</td>
<td>(November 1994)</td>
</tr>
<tr>
<td>Health Worker Behavior</td>
<td>Health Worker Behavior</td>
</tr>
<tr>
<td>5.2</td>
<td>3.7</td>
</tr>
<tr>
<td>Health Worker Content</td>
<td>Health Worker Content</td>
</tr>
<tr>
<td>0.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Client Satisfaction</td>
<td>Client Satisfaction</td>
</tr>
<tr>
<td>2.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Mothers' Knowledge</td>
<td>Mothers' Knowledge</td>
</tr>
<tr>
<td>2.1</td>
<td>1.9</td>
</tr>
</tbody>
</table>

*10-Point Health Worker Behavior Scale
Figure 5
Performance of Trained Health Workers
(30 Health Workers)

Notes: HW = Health Worker
* Highest Possible Score
Figure 6
Performance of Control Group
(30 Health Workers)

Observations

Time I
(April-May 1994)

Time II
(June 1994)

Time III
(November 1994)

Notes: HW = Health Worker
* Highest Possible Score
Figure 7
Key Messages Delivered by Trained Health Workers
(30 Health Workers)

Observations

Notes: * N varies from 133 to 217
** only BCG
Figure 8
Key Messages Delivered by Control Group

Notes: * N varies from 218 to 235
** only BCG
Figure 9
Behaviors Exhibited by Trained Health Workers

% of Interactions with Mothers at which Behavior Was Exhibited

<table>
<thead>
<tr>
<th>TIME I</th>
<th>TIME II</th>
<th>TIME III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>Radio</td>
<td>Feedback</td>
</tr>
<tr>
<td>Responded to questions**</td>
<td>Looked at mother</td>
<td>Looked at card</td>
</tr>
<tr>
<td>100</td>
<td>96</td>
<td>92</td>
</tr>
</tbody>
</table>

Notes: * N varies from 134 to 217
** where applicable
Figure 10
Behaviors Exhibited by Control Group

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>Radio</td>
<td>Radio</td>
</tr>
</tbody>
</table>

Observations

% of interactions with mothers at which behavior was exhibited:

- Looked at card: 88%
- Looked at mother: 72%
- Responded to questions: 33%
- Smiled: 25%
- Played with child: 25%
- Waited for calm child: 25%

Notes:
* N varies from 233 to 240
** where applicable
Figure 11
Verification of Mothers' Knowledge: Trained Health Workers

% of Interactions with Mothers at which Behavior Was Exhibited

TIME I (April-May 1994)
TIME II (June 1994)
TIME III (November 1994)

Observations

Training  Radio  Print Materials  Feedback  Radio

Fever  Visits remaining  Return date  Sores

0  5  10  15  20  25  30  35  40
Figure 12
Mothers' Exposure to Different Materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Saw/heard</th>
<th>Saw/heard more than once</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter Form</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Sticker</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Flipchart</td>
<td>32</td>
<td>16</td>
</tr>
<tr>
<td>Radio Program</td>
<td>38</td>
<td>11</td>
</tr>
<tr>
<td>Song</td>
<td>38</td>
<td>10</td>
</tr>
</tbody>
</table>

TIME III
(November 1994)
Figure 13
Mothers' Knowledge of Correct Age for Measles Vaccine according to Type of Material

Saw Received • Saw Sticker • Flipchart Radio Inter Form Inter Form Program

% of Mothers with Correct Response (n=584)

Exposed Not Exposed

TIME III (November 1994)
Figure 14
Mothers’ Knowledge of Number of Visits for Complete Vaccination according to Type of Material

TIME III
(November 1994)
Figure 15
Mothers' Knowledge of Correct Age for Measles Vaccine according to Number of Materials Seen or Heard

TIME III
(November 1994)
Figure 16
Mothers' Knowledge of Number of Visits for Complete Vaccination according to Materials Seen or Heard

TIME III
(November 1994)
Figure 17
Health Worker Feedback on Usefulness of Print Materials

October-December 1994
Figure 18
Health Worker Feedback on Mothers' Understanding of Print Materials

<table>
<thead>
<tr>
<th>Number Saying Mothers Understand</th>
<th>Least</th>
<th>Most</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flip Chart</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Inter Form</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Poster</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Sticker</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>

October-December 1994
Annex B: Observation Form for Health Workers
Burkina Faso: Fiche d'Observation
d'une Causerie de Groupe

1. Numéro d'Identité de l'Observateur: ______________________

2. Date de l'Observation: _______ (jour) _______ (mois) _______ (année)

3. Province:
   _______ (1) Boulkiemdé
   _______ (2) Passoré
   _______ (3) Oubritenga
   _______ (4) Bazéga

4. Numéro du Centre Responsable: ______________________

5. Causerie réalisée en:
   _______ (1) Centre Fixe _______ (2) Stratégie Avancée

6. Heure au début de la causerie: ________:____

7. Nombre de participants: ______________________

8. Numéro d'identité de l'agent observé: ______________________

NOTE AUX ENQUETEUSES: AU FUR ET AU MESURE QUE VOUS OBSERVEZ LA
CAUSERIE, VOUS POUVEZ REPONDRE “OUI” AUX DIFFERENTES QUESTIONS
LORSQUE VOUS VOYEZ QU’UN AGENT SE CONDUIT D’UNE TELLE FACON. EN
PRINCIPE, VOUS N’AUREZ A REPONDRE “NON”, QU’UNE FOIS LA CAUSERIE
TERMINÉE ET QUE LE COMPORTEMENT MENTIONNE N’A PAS ÉTÉ OBSERVE. SI
NON, VOUS RISQUEZ DE MARQUER “NON” ET ÊTRE OBLIGE D’EFFACER ET NOTER
“OUI” SI LE COMPORTEMENT EST OBSERVE ULTERIEUREMENT.
### COMPORTEMENT DE L'AGENT DE SANTE

<table>
<thead>
<tr>
<th>ACCUEIL (premieres 15-20 secondes)</th>
<th>N° d'Identité de l'Agent de Sante</th>
</tr>
</thead>
<tbody>
<tr>
<td>- sourit</td>
<td>OUI NON</td>
</tr>
<tr>
<td>- salue verbalement en langue des participants</td>
<td>OUI NON</td>
</tr>
<tr>
<td>- regarde les participants</td>
<td>OUI NON</td>
</tr>
</tbody>
</table>

### DISCUSSION DE GROUPE

<table>
<thead>
<tr>
<th>Explique theme de la causerie</th>
<th>OUI NON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilise des aides visuelles?</td>
<td>OUI NON</td>
</tr>
<tr>
<td>SI OUI, Indiquez lesquelles</td>
<td></td>
</tr>
</tbody>
</table>

Rapports de l'agent de santé vis à vis des mères

<table>
<thead>
<tr>
<th>- demande aux mères de participer</th>
<th>OUI NON</th>
</tr>
</thead>
<tbody>
<tr>
<td>- interrompt les mères</td>
<td>OUI NON</td>
</tr>
<tr>
<td>- répond aux questions posées</td>
<td>OUI NON</td>
</tr>
<tr>
<td>- grond les mères</td>
<td>OUI NON</td>
</tr>
<tr>
<td>- parle à haute voix</td>
<td>OUI NON</td>
</tr>
<tr>
<td>- parle lentement</td>
<td>OUI NON</td>
</tr>
<tr>
<td>- sonde les connaissances du public sur le sujet</td>
<td>OUI NON</td>
</tr>
<tr>
<td>- utilise un langage simple</td>
<td>OUI NON</td>
</tr>
</tbody>
</table>

### CONTENU DES MESSAGES

<table>
<thead>
<tr>
<th>N° d'Identité de l'Agent de Sante</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pourquoi on vaccine</td>
</tr>
<tr>
<td>Nombre de visites pour vacciner une femme</td>
</tr>
<tr>
<td>Nombre de visites pour vacciner un enfant</td>
</tr>
<tr>
<td>Importance du carnet de vaccination</td>
</tr>
<tr>
<td>Maladies de P.E.V.</td>
</tr>
<tr>
<td>Effets Secondaires</td>
</tr>
<tr>
<td>Si OUI, le(s) quel(s)</td>
</tr>
</tbody>
</table>

- Plaie                            | OUI NON                           |
| - Pas toucher                     | OUI NON                           |
| - Nettoyer avec de l'eau          | OUI NON                           |
| - Fièvre                          | OUI NON                           |
| - Pagne frais                     | OUI NON                           |
| - Aspirine                        | OUI NON                           |
| - Dispensaire                     | OUI NON                           |
9. L'agent, a-t-il posé des questions utiles pour vérifier les connaissances en matière P.E.V. ?

   (1) Oui
   (2) Non

10. Y-a-t-il eu des interruptions lors de la causerie?

   (1) Oui
   (2) Non [Passez à la question 11.]

   a. Si oui, de quel type?

      (1) Espace retreint
      (2) Passage de gens
      (3) Bruit
      (4) Enfants qui pleuraient
      (5) Autres Indiquez Lesquelles: 

11. Heure à la fin de la causerie: ___ : ___

COMMENTAIRES DE L'OBSERVATEUR:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Numero d'Identite de Mere __________ 

Burkina Faso: Fiche d'Observation
d'une Communication Face à Face

1. Numero d'Identite de la Mere: ____________________________

2. Numero d'Identite de l'Observateur: ____________________________

3. Date de l'Observation: ________ (jour) ________ (mois) ________ (annee)

4. Heure au debut de l'Observation: ___ : ___

5. Province:
   (1) Boulkiemde
   (2) Passoré
   (3) Oubritenga
   (4) Bazéga

6. Numero du Centre Responsable: ____________________________

7. Type de Strategie:
   (1) Centre Fixe
   (2) Strategie Avancée

Remplir une fiche pour l'agent de santé qui vérifie le carnet, et une autre fiche pour l'agent de santé qui vaccine l'enfant, même si c'est la même personne qui joue les deux rôles.

8. Numero d'identite de l'agent observe: ____________________________

9. Quel role a-t-il joué?
   _____ Vaccinateur
   _____ Vérificateur de Carnet

<table>
<thead>
<tr>
<th>COMPORTEMENT DE L'AGENT DE SANTE</th>
<th>N° d'Identité de l'agent de santé</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCUEIL (premieres 15-20 seconds)</td>
<td></td>
</tr>
<tr>
<td>Félicite la mère d'être venue</td>
<td>OUI</td>
</tr>
<tr>
<td>Sourit à la mère</td>
<td>OUI</td>
</tr>
<tr>
<td>Salue mere verbalemment dans la langue de la mere</td>
<td>OUI</td>
</tr>
<tr>
<td>Regarde la mere</td>
<td>OUI</td>
</tr>
<tr>
<td>Regarde le carnet</td>
<td>OUI</td>
</tr>
<tr>
<td>Joue avec l'enfant</td>
<td>OUI</td>
</tr>
<tr>
<td>A parlé dans le langue de la mère / a obtenu un interprète</td>
<td>OUI</td>
</tr>
</tbody>
</table>

Terminez l'observation
<table>
<thead>
<tr>
<th>CONTENU DES MESSAGES</th>
<th>N° d'Identité de l'agent de santé</th>
</tr>
</thead>
<tbody>
<tr>
<td>A mentionné quel vaccin a été utilisé / sera utilisé</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>Si OUI, le(s) quel(s)?</td>
<td></td>
</tr>
<tr>
<td>- BCG</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>- polio</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>- DT Coqueluche</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>- rougeole</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>- fièvre jaune</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>A parlé des effets secondaires</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>Si OUI, le(s) quel(s)?</td>
<td></td>
</tr>
<tr>
<td>- Plaie</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>- Pas toucher</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>- Nettoyer avec de l’eau</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>- Fièvre</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>- Pagne frais</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>- Aspirine</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>- Dispensaire</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>A expliqué la calendrier vaccinal</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>A mentionné combien de visites restent / visites terminées</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>RAPPORT AVEC MERE</td>
<td></td>
</tr>
<tr>
<td>Attend que la mère calme l’enfant</td>
<td>OUI  NON  NSAP</td>
</tr>
<tr>
<td>Répond à ses questions</td>
<td>OUI  NON  NSAP</td>
</tr>
<tr>
<td>Interrompt la mère</td>
<td>OUI  NON  NSAP</td>
</tr>
<tr>
<td>Gronde la mère</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>A utilisé des aides visuelles</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>Si OUI, lesquelles?</td>
<td></td>
</tr>
<tr>
<td>A mentionné la fiche de vaccination</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>A donné une fiche à la mère</td>
<td>OUI  NON</td>
</tr>
<tr>
<td>La mère a apporté une fiche avec elle</td>
<td>OUI  NON</td>
</tr>
</tbody>
</table>
Nombrador d'Identité de l'Agent _____________
Nombrador d'Identité de Mère _____________

### S'il a une fiche, est-ce que l'agent:

- a coché la carré sur la fiche? **OUI** **NON**
- a expliqué l'emploi / l'objet de la fiche? **OUI** **NON**
- a montré / donné l'auto-collant à la mère? **OUI** **NON**

### Sortie de la Mère

Encourage la mère à bien conserver la carte **OUI** **NON**
Félicite la mère d'être venue **OUI** **NON**
Renseigne la mère sur la date de retour **OUI** **NON** **NSAP**

**SI OUI,**

Date de retour __________________
ou
No. de Mois ___________

### Agent de Santé—Questions pour Vérifier Messages

<table>
<thead>
<tr>
<th>Verifie auprès de la mère si elle connait le nombre de visite qui restent</th>
<th>Mère répond correctement?</th>
<th>L'agent a-t-il re-expliqué?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OUI</strong> <strong>NON</strong></td>
<td><strong>OUI</strong> <strong>NON</strong> <strong>NSAP</strong></td>
<td><strong>OUI</strong> <strong>NON</strong> <strong>NSAP</strong></td>
</tr>
<tr>
<td>Verifie auprès de la mère si elle connait que faire en cas de fièvre</td>
<td><strong>OUI</strong> <strong>NON</strong></td>
<td><strong>OUI</strong> <strong>NON</strong> <strong>NSAP</strong></td>
</tr>
<tr>
<td>Verifie auprès de la mère si elle connait que faire en cas de plaie</td>
<td><strong>OUI</strong> <strong>NON</strong></td>
<td><strong>OUI</strong> <strong>NON</strong> <strong>NSAP</strong></td>
</tr>
<tr>
<td>Verifie auprès de la mère si elle connait quand revenir</td>
<td><strong>OUI</strong> <strong>NON</strong></td>
<td><strong>OUI</strong> <strong>NON</strong> <strong>NSAP</strong></td>
</tr>
</tbody>
</table>
Annex C: Exit Interview Forms for Mothers

1. Interaction with Health Workers
2. Exposure to Print Materials
3. Exposure to Radio Program
Burkina Faso: Questionnair pour les Mères à la Sortie d’une Séance de Vaccination

1. Numéro d’Identité de la Mère: ____________________________

2. Numéro d’Identité de l’Enquêteur: ____________________________

3. Date de l’Entretien: _______ (jour) _______ (mois) _______ (année)

4. Province:
   ___ (1) Boulkiemdé
   ___ (2) Passoré
   ___ (3) Oubritenga
   ___ (4) Bazéga

5. Type de Stratégie:
   ___ (1) Centre Fixe >>>>> Numéro du centre ____________
   ___ (2) Stratégie Avancée

6. Numéro du Centre Responsable: ____________________________

7. **EN REGARDANT LE CARNET DE VACCINATION**: Vaccins à donner à cet enfant:
   [Cochez TOUTES les réponses valables.]
   
   ___ (1) BCG
   ___ (2) Polio
   ___ (3) DTCoq.
   ___ (4) Rougeole
   ___ (5) Fièvre Jaune
   ___ (6) Aucun

8. a. **EN REGARDANT LE CARNET DE VACCINATION**: Nombre de visites qui restent pour que l’enfant soit complètement vacciné:

   ___ visites >>> SI AUCUNE, Passer à la question 9.

   b. **EN REGARDANT LE CARNET DE VACCINATION**: Date de retour:

   ___ Nombre des mois ____________
   ___ Date ____________
   (jour) (mois) (année)
[Posez les questions suivantes à la mère]

9. Contre quelles maladies est-ce que votre enfant a été vacciné aujourd’hui?
   - (1) Tuberculose
   - (2) Polio
   - (3) DTC
   - (4) Rougeole
   - (5) Fièvre Jaune
   - (6) Aucun
   - (7) Ne sais pas / Pas de réponse / J’ai oublié

10. a. Selon l’agent de santé, combien de visites restent-ils pour que votre enfant soit complètement vacciné?
   - Visites
   - Il ne m’a rien dit
   - Ne sais pas / Pas de réponse / J’ai oublié

   b. Quand est-ce qu’il vous a dit de revenir?
   - Date / Nombre des mois
   - Il ne m’a rien dit
   - Ne sais pas / Pas de réponse / J’ai oublié

11. Comment l’agent de santé vous a reçue? [Couchez TOUTES les réponses données.]
   - Il m’a félicité d’être venu
   - Il m’a salué à l’arrivée
   - Il m’a installé à l’arrivée
   - Il a été gentil
   - Il a été patient
   - Il m’a grondé
   - Autre
   - Ne sais pas / Pas de réponse / J’ai oublié

12. a. Est-ce que l’agent de santé a été respectueux?
   - (1) Oui
   - (2) Non

   b. Si Oui, qu’est-ce qu’il a fait pour être respectueux?
13. Avez-vous eu des réponses à vos questions?

_____ (1) Oui
_____ (2) Non
_____ (3) Je n’ai pas posé de questions.
_____ (4) Ne sais pas / Pas de réponse / J’ai oublié

14. Selon l’agent de santé, quels effets secondaires peuvent se présenter?

_____ (1) Fièvre
_____ (2) Plaie
_____ (3) Il ne m’a rien dit
_____ (4) Ne sais pas / Pas de réponse / J’ai oublié

15. Qu’est-ce que l’agent de santé vous a dit de faire en cas de fièvre?  
[Couchez TOUTES les réponses données.]

_____ (1) Pagne frais
_____ (2) Aspirine
_____ (3) Dispensaire si la fièvre continue
_____ (4) Il ne m’a rien dit
_____ (5) Ne sais pas / Pas de réponse / J’ai oublié

16. Qu’est qu’il vous a dit de faire en cas de plaie?  
[Couchez TOUTES les réponses données.]

_____ (1) Ne pas toucher
_____ (2) Nettoyer avec de l’eau
_____ (3) Il ne m’a rien dit
_____ (4) Ne sais pas / Pas de réponse / J’ai oublié
_____ (5) Autre

[Remerciez la mère.]
### INITIATIVE ROUGEOLE BURKINA FASO

**QUESTIONNAIRE SUR LE PROGRAMME RADIO "AWA"**

**JUIN 1994**

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. No. de centre</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2. Quel âge a-t-il votre enfant? *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Combien de fois l'avez-vous amené pour les vaccinations y compris aujourd'hui? *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4. Combien d'enfants vivants avez-vous? *</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>5. Combien d'années avez-vous passé à l'école?</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>6. Combien de fois écoutez-vous souvent la radio?</td>
<td>(1) jamais</td>
<td>(1) jamais</td>
<td>(1) jamais</td>
<td>(1) jamais</td>
<td>(2) mensuel</td>
<td>(2) mensuel</td>
<td>(2) mensuel</td>
<td>(2) mensuel</td>
</tr>
<tr>
<td></td>
<td>(3) hebdo.</td>
<td>(3) hebdo.</td>
<td>(3) hebdo.</td>
<td>(3) hebdo</td>
<td>(4) jour.</td>
<td>(4) jour.</td>
<td>(4) jour.</td>
<td>(4) jour.</td>
</tr>
<tr>
<td>7. Avez-vous écouté un programme qui parle des vaccinations, le mardi matin?</td>
<td>(1) Oui</td>
<td>(1) Oui</td>
<td>(1) Oui</td>
<td>(1) Oui</td>
<td>(2) Non</td>
<td>(2) Non</td>
<td>(2) Non</td>
<td>(2) Non</td>
</tr>
<tr>
<td>8. Combien d'épisodes avez-vous écouté?</td>
<td>(1) 1-3</td>
<td>(1) 1-3</td>
<td>(1) 1-3</td>
<td>(1) 1-3</td>
<td>(2) 4-6</td>
<td>(2) 4-6</td>
<td>(2) 4-6</td>
<td>(2) 4-6</td>
</tr>
<tr>
<td></td>
<td>(3) 7-10</td>
<td>(3) 7-10</td>
<td>(3) 7-10</td>
<td>(3) 7-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Qui était le personnage principal?</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>10. Combien de fois s'est-elle vaccinée avant l'accouchement?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Dans les épisodes que vous avez écouté, qu'est-ce qui s'est passé?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Si la mère a amené un enfant pour être vacciné, posez-lui la question. Si elle n'a pas d'enfants, ou n'a pas amené des enfants à être vacciné, mettez un trait et continuez avec le questionnaire.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Combien d'enfants vivants avez-vous?</td>
<td></td>
</tr>
<tr>
<td>3a. Avez-vous jamais vu cette fiche?</td>
<td></td>
</tr>
<tr>
<td>3b. En avez-vous une?</td>
<td></td>
</tr>
<tr>
<td>4a. Avez-vous jamais vu cet auto-colllant?</td>
<td></td>
</tr>
<tr>
<td>4b. En avez-vous un?</td>
<td></td>
</tr>
<tr>
<td>5a. Qu'est-ce que ces matériaux vous apprennent?</td>
<td></td>
</tr>
<tr>
<td>5b. Comment vous aident-ils?</td>
<td></td>
</tr>
<tr>
<td>6. Combien d'épisodes du programme radio qui parle de Awa et des vaccinations avez-vous écoute?</td>
<td></td>
</tr>
<tr>
<td>7. Combien de fois avez-vous écouté sur la radio une chanson concernant Awa et la vaccination?</td>
<td></td>
</tr>
<tr>
<td>8. Combien de fois est-ce que quelqu'un vous a montré cette boîte à images?</td>
<td></td>
</tr>
<tr>
<td>9. A quel âge devrait-on vacciner un enfant contre la rougeole?</td>
<td></td>
</tr>
<tr>
<td>10. Combien de visites sont nécessaire pour qu'un enfant soit complètement vacciné?</td>
<td></td>
</tr>
</tbody>
</table>
Annex D: Health Worker Interview Form
INITIATIVE ROUGEOLE BURKINA FASO
Questionnaire pour les Agents de Santé

Date d'observation: ___________________  No. de centre: _______________
Nom d'agent: ____________________________________________  No. d'agent: __________
Age: ________  Sexe: M  F  Ethnie: ___________________________
Niveau d'éducation: __________  No. d'années d'expérience: __________
Formation en IEC (citez toutes): ________________________________

INTRODUCTION

Nous voudrions vous poser des questions à propos du matériel éducatif qu'a élaboré le SPV en collaboration avec le projet Initiative pour la lutte contre la Rougeole. Voici le matériel dont on est intéressé, à savoir: la boîte à images, l'affiche, la fiche illustrée et l'auto-collant (MONTREZ A L'AGENT LE MATERIEL.)

LE MATERIEL EN GÉNÉRAL

1. Quand l'avez-vous reçu? (INDIQUEZ LE MOIS POUR CHAQUE MATERIEL.)

   _______ (1) Fiche Illustrée
   _______ (2) Auto-Collant
   _______ (3) Affiche
   _______ (4) Boîte à images
   _______ (5) Ne sais pas

2. Quand avez-vous commencé à utiliser le matériel avec les mères? (INDIQUEZ LE MOIS POUR CHAQUE MATERIEL.)

   _______ (1) Fiche Illustrée
   _______ (2) Auto-Collant
   _______ (3) Affiche
   _______ (4) Boîte à images
   _______ (5) Ne sais pas

3a. Quel est le matériel que vous trouvez le plus utile? (INDIQUEZ UN SEUL MATERIEL.)

   _______ (1) Fiche Illustrée
   _______ (2) Auto-Collant
   _______ (3) Affiche
   _______ (4) Boîte à images
   _______ (5) Ne sais pas

3b. Pourquoi le trouvez-vous le plus utile?
   __________________________________________________________
   __________________________________________________________

4. Quel est le matériel que vous trouvez le moins utile? (INDIQUEZ UN SEUL MATERIEL.)

   _______ (1) Fiche Illustrée
   _______ (2) Auto-Collant
   _______ (3) Affiche
   _______ (4) Boîte à images
   _______ (5) Ne sais pas
4b. Pourquoi le trouvez-vous le moins utile? (INDIQUEZ UN SEUL MATERIEL.)

5a. A votre avis, quel est le matériel que les mères comprennent le mieux? (INDIQUEZ UN SEUL MATERIEL.)

- (1) Fiche Illustrée
- (2) Auto-Collant
- (3) Affiche
- (4) Boîte à images
- (5) Ne sais pas

5b. Pourquoi pensez-vous que les mères le comprennent bien?

6a. A votre avis, quel est le matériel que les mères comprennent le moins bien? (INDIQUEZ UN SEUL MATERIEL.)

- (1) Fiche Illustrée
- (2) Auto-Collant
- (3) Affiche
- (4) Boîte à images
- (5) Ne sais pas

6b. Pourquoi pensez-vous que les mères ne le comprennent pas bien?

7a. Quel est le matériel que les mères aiment mieux que les autres? (INDIQUEZ UN SEUL MATERIEL.)

- (1) Fiche Illustrée
- (2) Auto-Collant
- (3) Affiche
- (4) Boîte à images
- (5) Ne sais pas

7b. Pourquoi pensez-vous que les mères l'aiment mieux que les autres?
8. Si vous ne pourriez utiliser qu'une seule aide, laquelle utiliseriez-vous? Pourquoi?

9a. Trouvez-vous des problèmes en utilisant ce matériel dans votre travail?

(1) Oui  (2) Non

9b. Si oui, quels problèmes se posent? Pourquoi?

LA FICHE ILLUSTREE et L'AUTO-COLLANT

10a. Comment utilisez-vous la fiche illustrée et l'auto-collant quand vous parlez avec une mère, et que lui dites-vous?

LA RADIO

11. Depuis le mois de mars dernier, avez-vous entendu à la radio une chanson ou un programme à propos de la vaccination?

(1) Oui  (2) Non

12. Si oui, lequel?

(1) Chanson  (2) Programme  (3) Ne sais pas

13. Si oui, à quoi sert la chanson ou le programme?
Annex E: Print Materials Tracking Form
## INITIATIVE ROUGEOLE

### FICHE MENSUELLE D'UTILISATION ET DE DISTRIBUTION DU MATÉRIEL IEC

Province: [Province]

Formation Sanitaire: [Formation Sanitaire]

Mois: [Mois]

### 1. BOÎTE À IMAGES

<table>
<thead>
<tr>
<th>DATE D'UTILISATION</th>
<th>LIEU D'UTILISATION</th>
<th>NO. PARTIC. DEBUT</th>
<th>NO. PARTIC. FIN</th>
<th>NOM DE PRESENTATEUR</th>
</tr>
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</table>

Quantité reçue: [Quantité reçue]  
No. de fois utilisée dans le mois: [No. de fois utilisée]

### 2. AFFICHES

<table>
<thead>
<tr>
<th>AU CSPS</th>
<th>A LA PREFECTURE</th>
<th>AU MARCHE, AU CABARET ETC.</th>
<th>A L'ECOLE</th>
<th>AUX VILLAGES ENVIRONN.</th>
<th>CONSERVEES AU MAGASIN</th>
</tr>
</thead>
</table>

Quantité reçue: [Quantité reçue]  
No. distribuées dans le mois: [No. distribuées]

### 3. FICHES ILLUSTREES ET AUTO-COLLANTS

<table>
<thead>
<tr>
<th>AUX MERES</th>
<th>AUX ECOLES</th>
<th>AILLEURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FICHE ILLUS.</td>
<td>[XXXXXXX]</td>
<td>[XXXXXXX]</td>
</tr>
<tr>
<td>AUTO-COLLANT</td>
<td>[XXXXXXX]</td>
<td>[XXXXXXX]</td>
</tr>
</tbody>
</table>

No. fiches recues: [No. fiches recues]  
No. auto-collants reçus: [No. auto-collants reçus]

No. distribuées dans le mois: [No. distribuées]

COMMENTAIRE: (CONTINUER AU VERSO SI NECESSAIRE) (PAS OBLIGATOIRE)