Final Assessment Report: Integration of Expanded Program on Immunization and Family Planning in Liberia

August 2013

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The Maternal and Child Health Integrated Program (MCHIP) is the U.S. Agency for International Development’s (USAID’s) Bureau for Global Health flagship maternal, neonatal and child health (MNCH) program. MCHIP supports programming in MNCH, immunization, family planning, nutrition, malaria and HIV/AIDS, and strongly encourages opportunities for integration. Cross-cutting technical areas include water, sanitation, hygiene, urban health and health systems strengthening.

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## Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CM</td>
<td>Certified Midwife</td>
</tr>
<tr>
<td>COC</td>
<td>Combined Oral Contraceptive</td>
</tr>
<tr>
<td>DHS</td>
<td>Demographic and Health Survey</td>
</tr>
<tr>
<td>EPI</td>
<td>Expanded Program on Immunization</td>
</tr>
<tr>
<td>FGD</td>
<td>Focus Group Discussion</td>
</tr>
<tr>
<td>FP</td>
<td>Family Planning</td>
</tr>
<tr>
<td>IUD</td>
<td>Intrauterine Device</td>
</tr>
<tr>
<td>LAM</td>
<td>Lactational Amenorrhea Method</td>
</tr>
<tr>
<td>MCHIP</td>
<td>Maternal and Child Health Integrated Program</td>
</tr>
<tr>
<td>MOHSW</td>
<td>Ministry of Health and Social Welfare</td>
</tr>
<tr>
<td>NGO</td>
<td>Nongovernmental Organization</td>
</tr>
<tr>
<td>OIC</td>
<td>Officer in Charge</td>
</tr>
<tr>
<td>POP</td>
<td>Progestin-only Pill</td>
</tr>
<tr>
<td>PPFP</td>
<td>Postpartum Family Planning</td>
</tr>
<tr>
<td>USAID</td>
<td>U.S. Agency for International Development</td>
</tr>
</tbody>
</table>
Executive Summary

From March to November 2012, Liberia’s Ministry of Health and Social Welfare (MOHSW), with technical support from the Maternal Child Health Integrated Program (MCHIP), supported by the U.S. Agency for International Development (USAID), piloted a model for integrating the service delivery of immunization and family planning (FP) in 10 health facilities in Bong and Lofa counties. The approach involved vaccinators providing a few short, targeted FP and immunization messages and same-day FP referrals to mothers bringing their infants to the health facility for routine immunization. Both the MOHSW’s Expanded Program on Immunization (EPI) and the Family Health Division provided input on the design of the model and selection of facilities for the pilot.

Immunization services at fixed facilities (as opposed to outreach services) were identified as the primary integration platform, given that in Liberia fixed facility services cover a greater proportion of infants and service provision in fixed facilities tends to be more stable and consistent. Fixed facilities also permit a greater degree of privacy—which stakeholders viewed as a particularly sensitive point with regard to contraceptive use by mothers of young infants.

A mid-term assessment and monthly supervision visits indicated that the model was implemented as planned. A final assessment was conducted in December 2012 to assess the outcomes of integrated service delivery. The assessment relied on the following sources of data: service statistics (both EPI and FP) collected during the MCHIP/MOHSW monthly supervision visits to each participating facility; observations during supportive supervision visits and training activities; MOHSW EPI data for pilot facilities and all other facilities in Bong and Lofa counties for 2011 and 2012; and interviews and focus group discussions (FGDs) with clients, service providers, program managers, and partner agency representatives.

Key findings include the following:

Family Planning

- **Both counties experienced large increases in the numbers of new contraceptive users.** Comparing the intervention period (March–November of 2012) with the same period of 2011, the number of new contraceptive users at participating facilities increased by 90% in Lofa County (517 to 983) and 73% in Bong County (1,182 to 2,039) for a total increase of 1,323 new contraceptive users above the same period of the previous year. For March–November 2012, the number of new contraceptive users in the pilot sites included women who had actively committed to use the lactational amenorrhea method (LAM). LAM was not routinely tracked in FP registers in 2011, but routine counseling on LAM by FP providers and active utilization of LAM were suspected to be very low prior to the intervention. No concurrent major efforts to improve the provision or utilization of FP had been introduced at these sites between 2011 and 2012.

- **FP users who were referred from EPI and accepted a method on the same day accounted for a large proportion of the total number of new contraceptive users in participating facilities.** During the pilot period, 44% and 34% of all new contraceptive users in participating facilities in Bong and Lofa (respectively) were same-day EPI-referral acceptors.
Immunization

- **Pilot facilities experienced an increase in the number of doses of Penta 1 and Penta 3 administered.** In Lofa, the number of Penta 1 and 3 doses administered at facilities participating in the EPI/FP pilot increased substantially in March–November 2012 compared to the same period of the previous year whereas the number of Penta 1 and 3 doses decreased across all other non-participating facilities in the county. In Bong County, Penta 1 and 3 doses experienced a modest increase, both at participating and non-participating facilities. In both counties, the increase in Penta 1 doses administered outpaced that of Penta 3 doses, resulting in a net increase in the dropout rate. An examination of possible explanations showed that the pilot facilities had a higher than average background rate of dropout prior to participating in the pilot and that, in Bong, the findings were affected disproportionately by one large facility that experienced a drop in immunization due to human resource constraints in 2012. Together, these findings suggest that the changes in immunization were more likely due to broad external factors rather than the integrated EPI/FP service delivery itself. However, future integration efforts should continue to seek ways to minimize dropout rates—a problem that has been noted to challenge immunization services nationwide.

- **Activities increased vaccinators’ sense of confidence and value within the health system and community.** Vaccinators reported that the integrated service delivery pilot initiative contributed to their sense of confidence and perceived value within the community, and may have helped to improve their communication with clients and attention to immunization recordkeeping.

- **Integrated service delivery continued at pilot sites by its own accord even after the pilot phase was completed.** Follow-up visits to several facilities in each county conducted three months after the completion of pilot program activities indicated that service providers were continuing to implement the integrated approach in spite of the completion of the pilot program. Vaccinators, FP providers, and supervisors noted the value of the approach for improving uptake of services and increasing communication and collaboration across service delivery areas.

In conclusion, it appears that the key features of the approach were workable, and contributed to strong increases in FP uptake among women in the extended postpartum period. The model can be improved by strengthening the emphasis on immunization communication, thereby assuring a strong platform for referral to FP services. Together, these combined services can contribute to longer birth intervals and improved health outcomes for children, mothers, and families. Modest resources are needed to implement this model, which makes only minor changes in existing health worker practices, adding about two to three minutes per vaccination contact. Resources are needed for training, some changes in supervision, support materials and, in some places, privacy screens. It is hoped that findings from this pilot study will help to inform future efforts to integrate EPI and FP services in Liberia and in other countries.
Background and Rationale

The 2007 Demographic and Health Survey (DHS) in Liberia indicated that there is a substantial unmet need for family planning (FP) using modern contraceptive methods. According to a re-analysis of the 2007 DHS data conducted by the Maternal and Child Health Integrated Program (MCHIP), less than 10% of women 6–12 months postpartum use any type of modern contraception. This same time period postpartum also overlaps with the schedule for routine infant immunization. Liberia’s national immunization schedule calls for children to be vaccinated at birth, 6, 10, and 14 weeks and 9 months of age; however, the actual ages at which these vaccination contacts take place are believed to be somewhat later. These vaccination-related contacts with the health system during the infant’s first year of life offer a promising opportunity to also address women’s FP needs during the same period.

The Liberia Ministry of Health and Social Welfare (MOHSW) has recognized the significant role that FP can play in reducing maternal and newborn morbidity and mortality in the country. With the government’s commitment to reduce the high levels of unmet need for FP, the concept of using vaccination contacts to increase access to FP and possibly immunization is supported by high levels within the MOHSW. MOHSW officials also pointed out the need to maximize the use of limited human and financial resources to achieve as broad a health benefit as possible. For this reason, MCHIP and the MOHSW designed an activity to integrate the delivery of FP and routine infant immunization services on a pilot basis in a limited number of health facilities.

Model for Integrated Expanded Program on Immunization/Family Planning Service Delivery

From March to November 2012, MCHIP and the MOHSW piloted a model for integrated expanded program on immunization (EPI)/FP service delivery in 10 health facilities in Bong and Lofa counties. The approach employed by MCHIP and MOHSW involved vaccinators providing a few short, targeted FP and immunization messages and same-day FP referrals to mothers bringing their infants to the health facility for routine immunization. The emphasis of the approach was co-located provision of same-day services, with the vaccinators serving as the critical referral link between points of service delivery. This model involves the following components:

- During routine infant immunization sessions, at the completion of each immunization visit, vaccinators use a simple job aid to share brief, targeted FP and immunization messages one-on-one (not through group health talks) with mothers and refer them to the co-located FP room for more in-depth FP counseling and services. The job aid includes messages about healthy timing and spacing of pregnancy, benefits of FP for women with infants less than one year of age, and a reminder about the return date for the child’s next EPI visit. (See job aid and other materials in Appendix 1.)

- Women who are interested in seeking FP services on the same day are given a referral card, their names are recorded in a supplemental ledger, and they are directed to the FP room by the vaccinator.
Women who are not interested in seeking FP on the same day are given a leaflet with information about the benefits of FP for the health of the mother, father, and infant, and are encouraged to discuss FP with their partners, other family members, and/or friends and return to the facility soon for FP.

FP providers collect referral card from those women referred from immunization services and document the referrals in their FP ledgers.

Posters emphasizing the message that “family planning is good for baby ma” are placed throughout the clinic, including at the immunization station and FP room. As part of the steps listed on the job aid, the vaccinator points out the poster to mothers. Posters also help to guide referred clients from the vaccination station to the FP room.

The key steps involved in the integrated service delivery approach are delineated in Figure 1.

**Figure 1: MOHSW/MCHIP Integration of EPI and FP in Liberia: The Steps Involved**

- **Client brings infant to the clinic for immunization services**
- **Vaccinator provides vaccine and immunization information**
- **Vaccinator uses EPI/FP job aid to provide brief FP messages and same-day referral**
- **If the client ACCEPTS to go for FP services on the same day, the vaccinator gives her a referral card and directs her to the FP room. He writes down her name, contact, and baby’s age in the EPI/FP book.**
- **If the client DOES NOT accept to go for FP services on the same day, the vaccinator gives her a leaflet about the benefits of FP, and asks her to consider returning for FP soon.**
- **Vaccinator reminds the mother about the return date for the child’s next vaccine**
- **Client walks to FP room, and presents her referral card to the certified midwife (CM)**
- **CM provides postpartum family planning (PPFP) counseling**
- **If she ACCEPTS to start using an FP method that day, CM marks a STAR in the comments section of her FP book**
- **If she does NOT accept to start using an FP method that day, CM marks a CHECK in the comments section of her FP book**
- **CM returns referral cards to the vaccinator at end of each day**
Target facilities—one hospital and four health clinics in each county—were selected in consultation with the MOHSW. Lofa and Bong were identified as priority counties for this pilot initiative because of their relatively stable immunization programs. Immunization services at fixed facilities (as opposed to outreach services) were identified as the primary integration platform, given that fixed facility services cover a greater proportion of infants, and service provision tends to be more stable and consistent. Fixed facilities also permit a greater degree of privacy—a particularly sensitive point with regard to contraceptive use by mothers of young infants. Target facilities were selected in various proximities to the main road, with some located in higher traffic areas and some in more remote locations. In Lofa, all health facilities were supported by the International Rescue Committee. In Bong, county officials had expressed a desire to select facilities with various nongovernmental organization (NGO) supporters to encourage broader buy-in. The facilities in Bong were supported by Save the Children, Médecins du Monde, and Africare.

The following meetings, assessments and trainings were conducted:

- Initial advocacy and planning meetings with key stakeholders in early 2011
- Formative assessment and development of messages and materials later in 2011
- Initial three-day training of service providers in late February/early March 2012
- One-day orientation on EPI/FP integration for county supervisors (reproductive health, EPI, Clinical and District Health Officers) and Officers in Charge (OICs)
- Monthly supportive supervision visits at the 10 pilot sites by MCHIP, MOHSW, and county representatives
- Mid-term assessment and refresher training in July 2012, and a final assessment in December 2012
- A stakeholder meeting with key facility-, county-, and national-level stakeholders to review and discuss preliminary endline findings

Key steps in the process are also summarized in Table 1.

Table 1. Timeframe and Key Activities for MOHSW and MCHIP EPI/FP Pilot Initiative

<table>
<thead>
<tr>
<th>TIMEFRAME</th>
<th>ACTIVITY</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 2011</td>
<td>Initial discussions with MOHSW; stakeholder meeting with national EPI and FP officials, County Health Teams, partners</td>
<td>Decision to work in Bong and Lofa; consensus to work on facility-based integration for routine immunization only</td>
</tr>
<tr>
<td>April–May 2011</td>
<td>Formative research to inform details of integration model</td>
<td>Sensitivity and stigma regarding postpartum women’s use of FP services revealed</td>
</tr>
<tr>
<td>June–September 2011</td>
<td>Design, pretesting, and production of training materials</td>
<td>Active learning approach addresses perceptions regarding use of contraceptives by postpartum women</td>
</tr>
<tr>
<td>February 2012</td>
<td>Training of staff at five facilities each in Bong and Lofa</td>
<td>Three-day training for vaccinators and certified midwives (CMs), including field visits; one-day orientation for county supervisors and OICs</td>
</tr>
<tr>
<td>March–November 2012</td>
<td>Pilot of integrated EPI/FP service delivery, including monthly supervision visits to participating facilities</td>
<td>MCHIP staff accompanied by representatives from FP, EPI, County Health Teams</td>
</tr>
<tr>
<td>TIMEFRAME</td>
<td>ACTIVITY</td>
<td>REMARKS</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>July–August 2012</td>
<td>Mid-point assessment using quantitative and qualitative methods</td>
<td>Based on feedback from facility staff, introduced privacy screens in vaccination area to ensure the confidentiality of the mother’s decision</td>
</tr>
<tr>
<td>December 2012</td>
<td>Final assessment using quantitative and qualitative methods</td>
<td>Included focus group discussions (FGDs) with referral acceptors and non-acceptors, interviews with service providers and OICs, and interviews with partner agency representatives and supervisors</td>
</tr>
<tr>
<td>March 2013</td>
<td>Final stakeholder meeting</td>
<td>Presentation of approach and key findings to MOHSW, partners, and County Health Teams from six counties</td>
</tr>
</tbody>
</table>

This report details findings from the final assessment, including findings related to the referral process, FP outcomes, immunization outcomes, and perspectives of clients, providers, and other stakeholders on integrated service delivery.

**Assessment Methodology**

The final assessment, conducted in December 2012, sought to respond to the following questions:

1. Was the pilot activity associated with changed outcomes for FP? What types of changes?
2. Was the pilot activity associated with changed outcomes for routine immunization? What types of changes?
3. How “completely” adhered to was the EPI/FP integration intervention? Did mothers avail themselves of the entire intervention?
4. What were client, provider, and supervisor perspectives on the integrated service delivery process? What were the challenges? What adjustments could be made to maximize outcomes?

Data sources used to investigate the aforementioned assessment questions included the following:

- Service statistics (both EPI and FP) collected during MCHIP/MOHSW monthly supervision visits to each participating facility
- Observations during supportive supervision visits and training activities
- MOHSW EPI data for pilot facilities and all other facilities in Bong and Lofa counties for 2011 and 2012
- Individual interviews with service providers, OICs, program managers, partner agency representatives, and supervisors
- FGDs with clients who HAD accepted same-day FP referrals from the vaccinator
- FGDs with clients who had NOT accepted same-day FP referrals from the vaccinator
Respondents included in the final assessment are detailed in Table 2.

Table 2: Respondents Included in the EPI/FP Final Assessment

<table>
<thead>
<tr>
<th>RESPONDENT CATEGORY</th>
<th># RESPONDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviews</td>
<td></td>
</tr>
<tr>
<td>Vaccinators</td>
<td>10</td>
</tr>
<tr>
<td>FP Providers</td>
<td>10</td>
</tr>
<tr>
<td>OICs</td>
<td>9</td>
</tr>
<tr>
<td>Program Managers/Partners/Supervisors</td>
<td>13</td>
</tr>
<tr>
<td>FGDs</td>
<td></td>
</tr>
<tr>
<td>FP Referral Acceptors (Clients whose infants had used EPI services within the previous 9 months)</td>
<td>4 FGDs (31 total respondents)</td>
</tr>
<tr>
<td>FP Referral Non-Acceptors (Clients whose infants had used EPI services within the previous 9 months)</td>
<td>4 FGDs (25 total respondents)</td>
</tr>
</tbody>
</table>

**RESPONDENT SELECTION CRITERIA**

Respondents for the final assessment were purposively sampled according to the five respondent categories. At the pilot facilities, one vaccinator, one FP provider, and one OIC were interviewed at each site. At sites with more than one FP provider or vaccinator, the respondents selected were those who had been most closely involved in the integrated service delivery process. At one facility, the OIC was recently deceased and a new OIC had not yet been appointed. Additionally, representatives from each of the partner agencies supporting the pilot facilities in both counties were invited to be interviewed, as were the FP and immunization focal points in each county and at the MOHSW level.

FGD participants were clients of the participating health facilities. Four health facilities from each county were randomly selected and appointed as either sites for FGDs with referral acceptors or non-acceptors. Two FGDs with referral acceptors and two interviews with non-acceptors were conducted in each county. All FGD participants were selected with the assistance of health facility staff. At sites selected for FGDs with referral acceptors, during the two weeks preceding the study, facility staff were asked to invite all women who had accepted the FP referrals to return to the facility on a specified date to participate in the FGDs, until they had lined up 10 participants. At sites selected for FGDs with non-acceptors, facility staff were asked to randomly select every third woman who did not accept the FP referral and invite her to return to the facility to participate in the FGD, until they had lined up 10 participants. All FGD participants were given a transport allowance and soap as compensation for their participation.

For all interviews and FGDs, respondents were read a consent statement and were asked to provide oral consent in order to participate.

**ASSESSMENT TEAM**

The assessment team included representatives from MCHIP and the MOHSW. County representatives accompanied the assessment team to the health facilities, although they did not participate in facilitating the interviews and FGDs. Health facility staff were not present for the FGDs, as they have regular contact with clients and the team wanted to minimize their influence on client responses.
DATA COLLECTION AND ANALYSIS

Routine service statistics were collected using pre-formulated data collection sheets. Data collection sheets were sent from Liberia to MCHIP headquarters for entry into an electronic database. Qualitative data from the final assessment were collected by the MCHIP/MOHSW assessment team. Detailed notes were taken within pre-formulated questionnaires. These questionnaires were also transcribed within an electronic database. Most interviews and FGDs had two note-takers, so both sets of notes were compared and reconciled for entry within the database. No personal identifiers were entered into the databases. Qualitative data collection instruments used for the final assessment are included in Appendix 2.

Findings

REFERRAL PROCESS

Findings

During program implementation, service statistics were collected to monitor client referral acceptance and FP uptake among referred clients. Service statistics revealed wide variation in referral acceptance across facilities. On a monthly basis, the average percentage of mothers bringing their children for immunization who accepted an FP referral on the same day ranged from 12–32% across the five facilities in Lofa County and 10–45% in Bong County. Detailed figures for each health facility are presented in Table 3. There was no clear trend in referral acceptance over time or across facilities. Hospitals generally had lower percentages of clients accepting referrals as compared with health clinics.

In addition to examining referral acceptance, the assessment looked at the percentage of mothers accepting the FP referrals who actually went to the FP provider that day, and the percentage of those mothers who accepted an FP method that day.

The data reveal that the percentage of women who accepted a referral for FP who actually went to the FP provider the same day was quite high at over 80%, and the percentage of those women who actually accepted a method on the same day was even higher, exceeding 90%. Acceptance rates were similar across both counties.

Table 3: Referral Process Findings at Pilot Sites during March–November 2012, by County

<table>
<thead>
<tr>
<th>FACILITY</th>
<th>(A) AVERAGE MONTHLY % OF MOTHERS BRINGING CHILDREN FOR IMMUNIZATION WHO ACCEPT FP REFERRAL</th>
<th>(B) TOTAL # OF MOTHERS ACCEPTING FP REFERRALS</th>
<th>(C) # (%) OF MOTHERS ACCEPTING FP REFERRALS WHO GO TO THE FP PROVIDER</th>
<th>(D) # (%) OF MOTHERS ACCEPTING FP REFERRALS WHO GO TO THE FP PROVIDER AND ACCEPT AN FP METHOD THAT DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bong County</td>
<td>12.5%</td>
<td>426</td>
<td>357 (84%)</td>
<td>332 (93%)</td>
</tr>
<tr>
<td>Phebe Hospital</td>
<td>45.2%</td>
<td>204</td>
<td>178 (87%)</td>
<td>172 (97%)</td>
</tr>
<tr>
<td>Garmu Clinic</td>
<td>15.7%</td>
<td>361</td>
<td>342 (95%)</td>
<td>328 (96%)</td>
</tr>
<tr>
<td>Zoweinta Clinic</td>
<td>26%</td>
<td>159</td>
<td>138 (87%)</td>
<td>126 (91%)</td>
</tr>
<tr>
<td>Fenutloi</td>
<td>9.9%</td>
<td>99</td>
<td>85 (86%)</td>
<td>80 (94%)</td>
</tr>
<tr>
<td>Salala</td>
<td>10.9%</td>
<td>241</td>
<td>191 (79%)</td>
<td>186 (97%)</td>
</tr>
<tr>
<td>FACILITY</td>
<td>(A) AVERAGE MONTHLY % OF MOTHERS BRINGING CHILDREN FOR IMMUNIZATION WHO ACCEPT FP REFERRAL</td>
<td>(B) TOTAL # OF MOTHERS ACCEPTING FP REFERRALS</td>
<td>(C) # (%) OF MOTHERS ACCEPTING FP REFERRALS WHO GO TO THE FP PROVIDER</td>
<td>(D) # (%) OF MOTHERS ACCEPTING FP REFERRALS WHO GO TO THE FP PROVIDER AND ACCEPT AN FP METHOD THAT DAY</td>
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<td>--------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Lofa County</td>
<td>1,064</td>
<td>934 (88%)</td>
<td>892 (96%)</td>
<td></td>
</tr>
<tr>
<td>Gbonyea Clinic</td>
<td>934 (88%)</td>
<td></td>
<td>71 (99%)</td>
<td></td>
</tr>
<tr>
<td>Curran Lutheran Hospital</td>
<td>144</td>
<td>134 (93%)</td>
<td>116 (87%)</td>
<td></td>
</tr>
<tr>
<td>Kpaiyea Clinic</td>
<td>65</td>
<td>54 (83%)</td>
<td>52 (96%)</td>
<td></td>
</tr>
<tr>
<td>Borkeza Clinic</td>
<td>51</td>
<td>43 (84%)</td>
<td>40 (93%)</td>
<td></td>
</tr>
<tr>
<td>Ganglota Clinic</td>
<td>86</td>
<td>54 (63%)</td>
<td>53 (98%)</td>
<td></td>
</tr>
</tbody>
</table>

**Factors associated with participation at each stage**

Factors associated with women accepting an FP referral but not seeing the FP provider that day cited by clients included long wait times to see the CM for FP services, unclear pathways from the vaccination station to the FP room, and client hesitation about being seen going for FP services by others.

Factors associated with women seeing the FP provider but not accepting an FP method that day cited most frequently by clients included: a desire to first consult with their partner before accepting an FP method; a preference to wait for the child to grow older before initiating FP use; and dissuasion by the FP provider against using an FP method before reaching a particular time postpartum. One referral acceptor said, “My baby is still young and I am not doing man business [resume sexual activity] until my baby walks. If I start taking FP, my man will make me do man business.” And another referral acceptor said, “I am waiting for my baby to walk first.” One client also said that when she went for FP, the provider told her to come back at six weeks postpartum for a method.

**Discussion**

The referral acceptance rates presented in this report are very conservative estimates, and may underrepresent the actual same-day FP referral acceptance. The denominator used for these calculations is the total number of infants immunized (BCG + measles + Penta 1 + Penta 2 + Penta 3) in each facility during each month, as derived from vaccination registers. For the purpose of these calculations, BCG, measles, Penta 1, Penta 2, and Penta 3 vaccinations were all treated as distinct contacts; however, in reality, infants may receive more than one of these vaccines during a contact with EPI services.

**FAMILY PLANNING OUTCOMES**

FP indicators monitored were: total number of new contraceptive users (by type of method), total number of continuing FP users (by type of method), and total number of EPI-referred clients who accept an FP method (by type of method). These data were obtained from FP registers at participating facilities during monthly supportive supervision visits. Data were analyzed at intervention sites to compare service utilization during the pilot phase (March–November 2012) with the same months from the previous year, March–November 2011. MCHIP attempted to collect county-level FP data for these two periods to enable comparisons between the pilot sites and other facilities in the county, but at the time this report was prepared, those data were not available from MOHSW.
Findings

Comparing March–November of 2011 with the same period of 2012, the number of new contraceptive users at participating facilities increased by 90% in Lofa County (517 to 983) and 73% in Bong County (1,182 to 2,039). There was a total increase of 1,323 new contraceptive users comparing March–November 2012 to the March–November of 2011. All participating facilities showed an increase in the total number of new contraceptive users from March–November 2012 as compared with the previous year. The percentage increases across the 10 facilities are presented in Table 4 below.

Table 4: Number and Percentage Change in Number of New Contraceptive Users in Pilot Facilities
Comparing March–November 2011 and March–November 2012

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>HEALTH FACILITY</th>
<th>NEW CONTRACEPTIVE USERS</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>March–Nov 2011</td>
<td>March–Nov 2012</td>
</tr>
<tr>
<td>Bong</td>
<td>Fenutoli</td>
<td>79</td>
<td>386</td>
</tr>
<tr>
<td></td>
<td>Garmu</td>
<td>227</td>
<td>456</td>
</tr>
<tr>
<td></td>
<td>Phebe (hospital)</td>
<td>670</td>
<td>826</td>
</tr>
<tr>
<td></td>
<td>Salala</td>
<td>127</td>
<td>233</td>
</tr>
<tr>
<td></td>
<td>Zoweinta</td>
<td>79</td>
<td>138</td>
</tr>
<tr>
<td>Lofa</td>
<td>Borkeza</td>
<td>79</td>
<td>235</td>
</tr>
<tr>
<td></td>
<td>Curran (hospital)</td>
<td>117</td>
<td>306</td>
</tr>
<tr>
<td></td>
<td>Ganglota</td>
<td>73</td>
<td>135</td>
</tr>
<tr>
<td></td>
<td>Gbonyea</td>
<td>143</td>
<td>164</td>
</tr>
<tr>
<td></td>
<td>Kpaiyea</td>
<td>105</td>
<td>143</td>
</tr>
</tbody>
</table>

Graphs showing the numbers of new contraceptive users in pilot sites over March–November 2011 and 2012 are included in Figure 2 below. In Lofa, the data indicate substantial increases in the numbers of new contraceptive users between June and September, with smaller increases in April, May, October, and November. In Bong, the increases were fairly consistent over time, except for the month of May, where there was only a very slight increase in the number of new contraceptive users as compared with the previous year.
No other concerted efforts to increase FP uptake were noted during the pilot phase of the EPI/FP integration initiative, aside from one facility in Lofa County (Borkeza), which began providing community-based FP services during the EPI/FP integration pilot initiative.

It should be noted that for March–November 2012, the number of new contraceptive users in the pilot sites includes women who have committed to use the lactational amenorrhea method (LAM). LAM was not routinely tracked in FP registers in 2011, but routine counseling on LAM by FP providers and active utilization of LAM were suspected to be very low prior to the intervention.
The data also reveal that FP users who were referred from EPI and accepted a method on the same day account for a large portion of the total number of new contraceptive users in participating facilities. During March–November 2012, 44% and 34% of the total number of new contraceptive users in participating facilities in Bong and Lofa (respectively) were same-day EPI-referral acceptors. See Figure 3.

**Figure 3: New Contraceptive Users during March–November 2011 and 2012 in Participating Facilities**

Among EPI-referred women who accepted an FP method on the same day, the contraceptive method mix varied slightly between the two counties. See Figure 4. In Lofa, the largest portion of referral acceptors selected injectables (43%), followed by LAM (26%), progestin-only pills (POPs) (17%), and implants (7%) and combined oral contraceptives (COCs) (7%). In Bong, the largest portion of referral acceptors selected LAM (48%) followed by injectables (24%), POPs (15%), COCs (8%), and implants (3%). It should be noted that although intrauterine devices (IUDs) are offered in most facilities in Liberia, none of the FP referral acceptors were provided an IUD on the same day. Barriers to IUD uptake in pilot facilities and in the country as a whole may include lack of availability of IUD insertion kits, shortage of trained providers, provider bias, and cultural stigma and misconceptions surrounding this method.
Shifts in Knowledge and Perceptions

In addition to the increases in numbers of new contraceptive users at the target facilities, respondents also reported that the integrated service delivery process had increased their knowledge and changed their views about FP. Many mothers in the FGDs reported that before the vaccinator had spoken with them about FP, they were not aware that women with young infants (“baby ma”) could take FP. Many FP providers also reported that before the training, they were not aware that women with young infants could use FP. For example, one CM reported, “I know now that I don’t have to wait for the baby to walk to give FP. Baby ma can take FP.” Several CMs also mentioned that before the EPI/FP training, they had asked mothers to show proof of menses return before they would provide postpartum women with an FP method.

Other Family Planning Findings

Family Planning Counseling

While postpartum family planning (PPFP) service provision skills are still suboptimal at many health facilities, CMs frequently mentioned that the EPI/FP integration process had helped to strengthen their counseling skills. One CM mentioned, “Quality [of FP services] is very much improved. At the training, we learned about doing good counseling. FP is all about counseling. If we don’t do good counseling, they won’t accept.”

Persuasion/Coercion

When asked whether they had felt forced or pressured by the vaccinator to go for FP, all of the client respondents said that they had not felt forced or pressured. In several of the FGDs, respondents laughed, expressing surprise when this question was asked. One referral acceptor said, “I had my own mind. If I did not agree, I would not have gone.”

Amplification of FP messages

It was noted that the reach of the FP messages was amplified beyond the vaccinators’ one-on-one communication with clients, as clients often reported sharing FP messages with other people they know. The leaflet also presented a starting point for clients to discuss FP with friends, female family members, and partners. Several clients said that after the vaccinator had spoken with them about FP and shared the leaflet, they had encouraged others to use FP. One
client said, “I talked to my mother. She is still having [bearing children]. I told her that she and myself can go for FP together today. She agreed.” Another said, “My friend said that her baby was small and I talked to her about FP. I told her to come on her rightful time for vaccine and she can get FP.” One vaccinator also mentioned, “They carry the message about FP, and because of that, more people are coming. Tuesday is very much packed. More come because friends can tell them about it.”

Remaining Barriers to Family Planning Uptake
In spite of these shifts, however, barriers to FP uptake still remain. The primary reasons that clients cited for not accepting the FP referral were that they needed to discuss FP with their partner before making a decision; they wanted to wait until the child was older; they were concerned about side effects; and they were not ready to resume sexual activity yet. Several of the clients who mentioned that they wanted to speak with their partners before starting a method said that they had taken the EPI/FP leaflet and discussed it with their partners, and that the husbands had since agreed for them to start using FP. One client said, “[The vaccinator] gave me the paper. I told my husband and he is happy for it. After reading the paper, he felt good.” Another client mentioned, “I didn’t take it that day after talking to the FP lady. I came back the next day. I wanted to tell my husband.”

IMMUNIZATION OUTCOMES
Immunization indicators that were monitored included first and third doses of pentavalent vaccine administered (Penta 1 and Penta 3) and Penta 1 to 3 dropout rates. This analysis uses routine administrative data for EPI provided by the MOHSW in late February 2013 to:

- Compare the number of Penta 1 and Penta 3 doses administered at the participating facilities in March–November 2012 (the pilot period) with the same period of the previous year;
- Compare the number of doses of Penta 1 and Penta 3 administered in pilot facilities in 2012 with all other facilities in Bong and Lofa counties; and
- Compare Penta 1–3 dropout rates in pilot facilities with all other facilities.

Findings
During the implementation period, there was an increase in the number of doses of Penta 1 and Penta 3 administered across pilot sites.

In Lofa (Table 5), pilot health facilities showed a 35% increase in Penta 1 doses and 21% increase in Penta 3 doses from March–November 2011 to March–November 2012. By contrast, there were decreases of 11% for Penta 1 and 6% for Penta 3, respectively, at all other facilities.

Table 5: Lofa County, Penta 1 and Penta 3 Doses Administered, March-November 2011 and March-November 2012

<table>
<thead>
<tr>
<th>IMMUNIZATION PERFORMANCE</th>
<th>% CHANGE FROM MARCH-NOVEMBER 2011 TO MARCH-NOVEMBER 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pilot Facilities (N=5)</td>
</tr>
<tr>
<td>Penta 1 doses</td>
<td>35% increase</td>
</tr>
<tr>
<td>Penta 3 doses</td>
<td>21% increase</td>
</tr>
<tr>
<td>Penta 1–3 dropout rate</td>
<td>Increase from 14% to 25%</td>
</tr>
</tbody>
</table>
Table 6 summarizes findings from Bong County. There was a modest increase in the number of Penta 1 and Penta 3 doses given at pilot facilities from 2011 to 2012; however, this increase was smaller than the increase experienced in all other facilities.

<table>
<thead>
<tr>
<th>IMMUNIZATION PERFORMANCE</th>
<th>% CHANGE FROM MARCH–NOVEMBER 2011 TO MARCH–NOVEMBER 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pilot Facilities (N=5)</td>
</tr>
<tr>
<td>Penta 1 doses</td>
<td>9% increase</td>
</tr>
<tr>
<td>Penta 3 doses</td>
<td>5% increase</td>
</tr>
<tr>
<td>Penta 1–3 dropout rate</td>
<td>Increase from 6% to 9%</td>
</tr>
</tbody>
</table>

In both counties, the increase in Penta 1 doses administered outpaced that of Penta 3 doses, resulting in a net increase in dropout rate. At pilot facilities in Lofa County, the Penta 1–3 dropout rate increased from an already high rate of 14% in 2011 to 25%. At pilot facilities in Bong County, the Penta 1–3 dropout rate increased from 6% to 9%—still below the 10% threshold designated by the World Health Organization as indicating a problem with immunization dropout. An examination of trends from each of the pilot facilities in Bong County showed that a drop-off in performance from 2011 to 2012 at one large facility had a disproportionate effect on the findings across all five facilities. This facility experienced human resource constraints and internal supervisory turnover during the intervention period, which may have contributed to the performance drop-off. If data only from the other four facilities in Bong were considered, then the changes from March–November 2011 to March–November 2012 are: 13% increase in Penta 1 doses, 14% increase in Penta 3 doses, and a decrease in the dropout rate from 6% to 4%.

An examination of possible explanations showed that the pilot facilities had a higher than average background rate of dropout prior to participating in the pilot and that, in Bong, the findings were affected disproportionately by the one large facility that experienced a drop in immunization due to staff shortages in 2012. Vaccine stock-outs also posed a challenge at pilot facilities. Together, these findings suggest that the changes in immunization were more likely due to broad external factors than the integrated EPI/FP service delivery itself. However, future integration efforts should continue to seek ways to minimize dropout rates—a problem that has been noted to challenge immunization services nationwide.
Please see a graphic depiction of the change in doses administered and dropout rates in Figure 5.

**Figure 5: Percentage Change in Penta 1 and Penta 3 Doses Administered**

It should be noted that national EPI data quality has posed a major challenge countrywide. It is hoped that this integration effort and the final assessment help to encourage a more critical review and reflection on EPI data quality at all levels. A vaccinator explained, “[This process] has helped me to improve recordkeeping. When I got to the EPI area at first, I didn’t entirely understand the importance of record keeping.”

Clients were asked during the FGDs whether they had felt discouraged from returning to the facility for the child’s next vaccine due to the new FP referral process. None of the clients (both in the referral acceptor and non-acceptor groups) reported feeling discouraged to return to the facility. Clients reported that they saw the value of vaccinating their child and would return regardless of whether they decide to accept the FP referrals or not. One client said, “I won’t feel
bad. Vaccine is important. FP is not forced, it’s just education.” Some also said that the integrated service delivery made them feel more encouraged to come back for EPI. One referral acceptor said, “I will feel fine [about coming back for EPI]. I started taking FP. Next month on the 15th, it will run out. It is the same day as the next vaccine, so I will be rushing to get the vaccine that day so I can get my FP on time.”

Other Immunization Findings

Vaccinators reported that the integrated service delivery pilot initiative contributed to their sense of confidence and perceived value within the community, and may have helped to improve their communication with clients and attention to immunization record keeping. One vaccinator said, “It makes me to keep looking at records. I am paying more attention to the EPI ledger. Quality has changed in a good way. Baby ma know when to come for vaccine. The job aid reminds us to tell them when to come back. The use of immunization services has increased.” Another vaccinator mentioned, “For me, some of the good things, I love talking to baby ma about FP. It is encouraging to me. I have interest in it. I learned about the integrated approach, and it made me to know the importance of FP. I did not know this before.” And yet another said, “Some [clients] are saying their husbands say they should take FP and they come here more because they know they can get immunization at the same time. It helps us to meet the Ministry target [for immunization]. It helps you to be known in the community.”

Discussion

Interviews with facility staff and NGO partners revealed several possible explanations for the high dropout rates in pilot facilities (especially in Lofa). Potential explanations include:

- Performance-based financing that includes Penta 3 as indicator has been introduced in some but not all facilities; and in some facilities—but not others—health workers understand that they will receive rewards for high numbers of Penta 3. This type of reward system could lead to inflated reported figures for Penta 3 in some places but not others, thereby explaining the variable Penta 1–Penta 3 dropout rates.

- Overlap in de facto catchment populations. The vaccinator at one clinic explained that all mothers within its catchment area are supposed to obtain BCG and Penta 1 at that clinic. However, mothers usually receive later doses from the outreach team from Curran Lutheran Hospital, which has a mobile team whose only job is to provide outreach services (including EPI) to many villages in the catchment areas for clinics in the districts of Salayea and Zorzor (where all five pilot sites in Lofa County are located). While the Curran mobile team does coordinate with clinic staff about the schedule for outreach, it appears that the doses they provide are captured in the reporting from Curran Lutheran Hospital, not the individual clinics.

- In April–May 2012, there was a slowdown in services at health facilities in the Zorzor district of Lofa, the site of the five pilot clinics for EPI/FP integration. During this time, service provision was halted, as health workers were off site following up on administrative/salary matters. This slowdown did not occur in other districts or health facilities in Lofa.

- Some large facilities were short-staffed during part of the pilot period in 2012.

- Clients referred from EPI to FP may leave the FP provider with a return date for FP services that is different from the return date for the child’s next vaccine. The CM reminds the client when to come back for FP, but does not necessarily remind her when to come back for her child’s next vaccination. This may cause some confusion and is a possibly a missed opportunity for reducing dropout rates.
The effects of these issues on immunization data quality are not uniform and may not fully explain the increased dropout rate in pilot facilities compared to other clinics. However, they do demonstrate that several forces, playing out in different ways at different facilities, are likely to affect the quality of immunization data. Perhaps more important, they suggest that the modest changes in immunization performance at pilot facilities are more likely to be due to broad external factors rather than integrated EPI/FP service delivery itself.

**FACTORS THAT MOTIVATE OR IMPEDE SUCCESS OF INTEGRATED SERVICE DELIVERY**

The implementation team and key respondents identified several factors that either motivate or impede the success of integrated service delivery.

**Availability of Both Vaccinators and CMs on the Same Day**

Integrated EPI/FP service delivery relies on having trained vaccinators and FP providers available at the health facility during the same times on the same days. During supportive supervision visits, supervisors often noted that either the CM or the vaccinator was off site, and therefore referrals were not being made. Service provider availability was compromised due to scheduled provision of outreach services, personal illness, off site training commitments, and staff turnover.

**Proximity of FP and Immunization Services to Each Other**

This was an especially important consideration at the two referral hospitals where FP services were provided within a separate part of the outpatient department or a separate building altogether. In the two referral hospitals involved in the pilot initiative, one facility provided FP services on the obstetric ward (which is a long and circuitous distance to get from the vaccination space to the FP area with no clear path between the service delivery points). At the other facility, the FP room is located through the entrance to the lab area then down at the end of a dark corridor (with no clear indications for the route between the service delivery points). Providing a clear path from the vaccination station to the FP room can help to ensure that clients follow through on their FP referrals.

**Frequent Communication between Vaccinators and CMs**

After the mid-term assessment, service providers (vaccinators and CMs) were encouraged to set a weekly time to meet. They indicated their frequent communication had helped them to monitor the referral process, compare registers, and address challenges as they arose. The vast majority of FP providers and vaccinators interviewed said that the integration process had improved their relationships with other staff at the facilities. Regarding the weekly meetings, one CM mentioned, “It is useful. If I have more clients in my book than his, we can rectify it. It is good to meet and talk to rectify any errors.” A vaccinator at another site also mentioned, “At the end of the week, we discuss progress of EPI and FP. It has been helpful. We review registers and data. If I carry a mother in and the CM didn’t see, she might have left with the [referral] card.” This collaboration in the review of EPI and FP registers likely contributed to improved attention to and quality of the data.

**Job Aids or Reminder Materials to Reinforce Key Steps of Referral Process**

Service providers offered positive feedback about the job aids for vaccinators that provide a reference to guide vaccinators in sharing messages with clients. Vaccinators were trained to use the job aid consistently during every visit, rather than attempting to summarize key messages. Initially, a smaller-sized version of the job aid was developed, but vaccinators indicated during the mid-term assessment that the type was difficult for them to read, so a larger version was developed. LAM job aids and counseling checklists were also developed for FP providers.
Regular Supportive Supervision

The MOHSW/MCHIP team conducted monthly supportive supervision visits to the pilot sites to monitor the integration process and problem-solve with facility staff. Facility staff reported that they viewed the regular support as an important contributor to the success of the intervention. For example, one vaccinator mentioned, “She asks questions, helps us get on track, and recognizes improvements.”

On-the-Job Training for New Staff

Several of the pilot facilities experienced turnover of CMs, vaccinators, and OICs during the implementation period. For example, one facility had had three different OICs during the implementation period, and another facility had had three different CMs. Although OICs, vaccinators, and CMs were encouraged to orient new staff to the process using the initial training materials, it was noted that where turnover occurred, trained staff often did not thoroughly orient the new staff to the EPI/FP integration process. Staff at these facilities often waited for the supervision visits and expected that the supervisors would orient new staff. In the meantime, there would be a halt in integrated service delivery. It is recommended that training plans be developed by each facility in order to ensure that on-the-job training is provided in a timely and consistent way to new staff. Service providers and OICs should be encouraged to take greater responsibility for orienting new staff to the EPI/FP integration process. Orientation materials should also be developed to guide facility staff in conducting this type of in-service training.

Privacy at Immunization Station

Findings from the mid-term assessment revealed concerns about a lack of privacy at the vaccination station. At facilities where vaccination services are provided in a public space and not in a separate room, providers and clients mentioned that the lack of privacy had posed a barrier to referral acceptance, especially in light of the widespread stigma around FP use during the first year postpartum. Findings from the mid-term assessment led program managers to introduce privacy screens at facilities where vaccination services were provided in a public space. The screen offered some visual and auditory privacy for clients at the immunization station.

The response to the privacy screens from both vaccinators and clients was very positive. Numerous clients reported that they appreciated the additional privacy, that it allowed them to better hear what the vaccinator was saying, and that it made them feel more encouraged to accept the FP referral. When asked about the privacy screen, one referral acceptor said, “It is good. Plenty noise is not there so I can understand what he says.” Another said, “I feel good about it. Before, so plenty people could see your face.” And yet another client said, “Without the screen, some people can be afraid to accept FP with the child looking small.”

Commodity Supply (Contraceptives and Vaccines)

Several clients in the FGDs indicated that the contraceptive method that they wanted was not in stock at the health facility during their visit. Contraceptive stock-outs, especially for injectables and implants, have posed a major challenge for health facilities in Liberia. As was reinforced with service providers and supervisors during the initial training, when working to stimulate demand for FP services, it is important to ensure that there are sufficient commodities available to meet increased demand. Vaccine stock-outs were also noted at several facilities. This lack of supply poses a challenge for the success of the intervention, as integrated service delivery relies on having a strong immunization platform through which to integrate FP.
PPFP Counseling Skills

Observation and interviews with FP providers revealed gaps in FP counseling skills. Before the initial EPI/FP training, most FP providers from the pilot sites had not been trained specifically in PPFP. Knowledge of the LAM criteria and cues to transition to another modern method, return to fertility, and healthy timing and spacing of pregnancy were weak. The initial EPI/FP training for service providers included a session on the basics of PPFP counseling, and role plays for FP providers to practice their skills, although this training was not sufficient to ensure provider competency in this area. All CMs were given a LAM job aid and a checklist outlining key points to discuss when providing PPFP counseling. However, supportive supervision visits reveal that several FP providers in the target sites were not adequately counseling on the LAM criteria and cues to transition, and were not routinely using the reference materials. Moving forward, it will be very important to continue to strengthen PPFP counseling skills, as integrated service delivery will likely result in more women in the extended postpartum period seeking FP services.

Discussion

Enthusiasm for integrated immunization and FP service delivery among the various respondent groups is very high. All respondents (clients, service providers, supervisors, partner organizations) interviewed during the endline assessment expressed a desire for the integrated service delivery approach to continue. Most respondents also wanted to see the integrated approach expand to additional sites. One client mentioned, “If you had been doing this before, I wouldn't have this child and could have gone further in school. Now I’m taking FP and the baby is doing well. It is good.” Vaccinators also found the approach acceptable, both in terms of it not providing an unmanageable increase in workload and the general acceptance by mothers that they encountered. When asked about whether the integrated service delivery process should continue, one of the vaccinators said, “Thank God, yes. This process is helping us. If the child is small, and then she has another one, the medical people suffer, the parents suffer, the child suffers. I want it to continue. Wait for the baby to be two or three years. FP can help with that.”

From the outset of this pilot implementation process, MOHSW, county teams, and donors have expressed an interest in scaling up this approach to additional sites, pending positive findings from the pilot phase. In light of findings from this assessment, it is recommended that expansion of EPI/FP integrated service delivery proceed on a limited-scale basis. Prior to expansion of the approach, several proposed adjustments are recommended:

• Strengthen efforts to improve FP and immunization commodity security

• The supplemental EPI/FP register, which was used for data collection during the pilot phase, should no longer be used. Instead, referral acceptance/denial could be recorded directly in the EPI register on the same line as the child’s name. Vaccinators and FP providers should still be encouraged to collaborate in reviewing their registers to assess progress and identify challenges.

• For vaccinators, add reinforcement to the fact that referral messages should be given at EVERY vaccination contact, starting from the first one for BCG.

• At participating facilities, ensure that there is a clear pathway from one service delivery site to the other.

• Ensure privacy for clients during EPI and FP service provision at the clinic. Privacy screens may offer an interim solution at clinics where there is not a dedicated room for EPI service provision.
• County Health Teams and facility OICs should establish systems to ensure that when turnover occurs, on-the-job training on EPI/FP is provided for new staff.

• Strengthen EPI component of EPI/FP training, including strategies for preventing and addressing EPI dropout. This could include having CMs restate to mothers when they should bring their child back for the next vaccination.

• Incorporate opportunities to strengthen CM skills in PPFP counseling, including LAM and transition.

• Encourage CMs to remind EPI-referred clients about the child’s return date for the next vaccine before they leave the FP room.

• Clearly delineate responsibilities of stakeholders at all levels for EPI/FP integrated service delivery.

• Streamline key EPI/FP supervision tasks, and integrate EPI/FP supportive supervision within existing monitoring tools.

**LIMITATIONS**

This EPI/FP integration initiative was a demonstration project, and not designed as a research study. The number of facilities and service providers involved is small, thus no statistical analyses were conducted. On the other hand, rich qualitative data were obtained that should provide valuable learning for other programs in the Liberian context and elsewhere.

The limitations of this assessment must be acknowledged. First, the assessment was conducted by representatives from MCHIP and MOHSW rather than an independent monitor. It was hoped that including representatives from MOHSW in the assessment team would help to build ownership of the findings, strengthen technical capacity, and provide a forum for MOHSW to hear feedback firsthand. Additionally, MCHIP representatives on the endline assessment team were familiar with the supervisors and service providers, as they had previously worked together on the rollout and implementation of the integrated service delivery activities. Thus, the assessment team composition may have influenced the type of feedback provided by some respondents. FGDs were also conducted on site at the health facility, which may have biased client responses.

Challenges with data quality and availability may also have posed a limitation to the study. At the quarterly EPI review meeting in Kakata in February 2013, issues with immunization data quality were highlighted. County-level FP data were not available, which prevented comparisons in FP indicators between pilot sites and all other sites in Bong and Lofa counties.

**Conclusion**

It is hoped that findings from this pilot study will help to inform future efforts to integrate EPI and FP services in Liberia and in other countries. At a global level, FP and immunization integration has garnered attention as a promising practice by NGOs and donor agencies, although limited evidence exists to date, especially regarding immunization outcomes. It is hoped that these results will help to inform the dialogue about optimal integration models and factors that inhibit and maximize success for both FP and immunization outcomes.

The pilot phase of activity reported here was carried out by MOHSW and MCHIP/Liberia with the intent of identifying a workable model of integrated EPI/FP service delivery appropriate to the broad context of Liberia’s health system and the specific circumstances and findings of the
initial formative research. Based on the findings reported here, it appears that the key features of the approach were workable. These included:

- A relatively simple model of one-on-one communication between vaccinators and mothers that imposes little additional workload on vaccinators;
- A system of referral that encourages communication between different cadres of health personnel (vaccinators and CMs); and
- A facility-based approach that respects the sensitivities and need for privacy regarding contraceptive use among postpartum women, as expressed by both health personnel and the beneficiaries themselves.

The success of this approach, and of the individual services, is contingent on assured supplies of immunization and FP commodities. The model can be improved by strengthening the emphasis on immunization communication, thereby assuring a strong platform for referral to FP services. Together, these combined services can contribute to exclusive breastfeeding practices through the use of LAM, longer birth intervals and improved health outcomes for children, mothers, and families.
Appendix 1: Integration Tools

EPI/FP Job Aid

**JOB AID FOR VACCINATORS**

1) **At end of EPI visit, remind the mother:**
Don’t forget to come back for your child’s next vaccine on ______ date.

2) **Then, tell the baby’s mother these messages:**
   - Sister/Ma, since you are already here at the clinic, maybe you also want to go for family planning.
   - Family planning can help you put space between your children and it is good to use even before the baby starts walking.
   - It will give you time to rest and be strong to care for your baby.
   - Baby ma who come here for vaccine are going for family planning and they don’t pay money for it.

3) **Show mother the family planning poster.**

4) **Then, ask mother the following question:**
Would you like to see the family planning provider today?

   **IF YES**
   Good, let me show you the way.

   **IF NO**
   You don’t have to start family planning today, but maybe you would like to hear more information. Are you interested?

   **IF YES**
   Good, let me show you the place.

   **IF NO**
   Okay, please carry this paper, read it or let somebody read it to you, and think about coming back soon for family planning.

5) **Tell the mother:**
   “Thank you for coming today. We look forward to seeing you again soon.”

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Final Assessment Report: Integration of Expanded Program on Immunization and Family Planning in Liberia 21
EPI/FP Referral Card

EPI/FP REFERRAL CARD

EPI/FP Poster

Family Planning
Is Good for Baby Ma!

Go to the family planning room today.
Good Things about Family Planning for BABY PA:

- Save money
- Better care for family and support them
- Can still do man and woman business while the baby is sucking tay-tay

What Is Family Planning?

It helps families put space between their children.

It can make you not to get belly until you want to have another baby.

FAMILY PLANNING IS:
- Good for baby ma
- Free (no money)
- Very good in making you not to get belly

Good Things about Family Planning for BABY MA:

- Help you to rest
- More time for husband and other children
- Time to finish school
- Can do man and woman business and not worry about getting another belly too soon

Family Planning Is Good for the Family!

It is good for baby pa to come with baby ma.

Good Things about Family Planning for the BABY:

- Baby can grow good and be healthy
- Baby can still suck tay-tay for long time
- Baby can be strong and happy
Appendix 2: Qualitative Data Collection Instruments

Interview Guide: Vaccinators

1. How many months or years have you been providing immunization services? How long have you been working at this health facility?

2. At this facility, are immunization and family planning services linked in some way? How are they linked? What do you do differently now than what you did before the linked approach was introduced?

   [Depending on how specific the response is, probe: What do you say to the mother? Do you give her anything? Do you show her anything such as where to go?]

3. How has this changed what you do during vaccination? Please describe what you do differently now compared to what you were doing before this started?

4. What makes it easy for you to do this integrated approach?

5. [If needed, probe for use of job aid; training; support from supervisor, interest of mothers]

6. What makes it difficult to do this integrated approach? What are some of the challenges?

   [If needed, probe for lack of time (ask how much extra time it takes), lack of clarity about steps to take, client flow, documentation/use of register, commodities, concern that mother might refuse, discomfort with the topic of FP]

7. In your opinion, what are the good things about this integrated approach for the service providers at this facility? What are the good things about this integrated approach for clients?

8. What type of support have you received to implement this new approach? What additional support would be helpful? [If needed, probe: tools, supervision, refresher trainings, etc.]

9. Do you think this integrated approach has changed the quality of immunization services at this facility? Has it changed the use of immunization services by mothers? In what ways?

10. How has this new approach affected your communication, interactions, and relationships with other staff at this facility, especially the family planning providers?

    How frequently do you meet with the FP provider from your facility to discuss the process? During these meetings, do you review EPI/FP registers and referral data? Are these meetings useful? Why or why not?

11. Did the EPI-FP integration training or implementation process change your views or understanding about EPI? About FP? Explain.

12. [Only for facilities using privacy screens at EPI]:

    Were you given a privacy screen for your station?

    • Since you started using the screen, what changes (if any) have you noticed in the way clients respond to you speaking with them about family planning?

    • In what way/s (if any) has the privacy screen affected your provision of EPI services?

    • Would you like to continue using the privacy screen? Why or why not?
13. What have you heard from the clients about the new process of linking immunization and FP services?
   Generally, how do women respond to hearing the FP messages and referrals during the immunization visits? [PROBE for any positive comments or concerns they have heard from clients]
   Is the number of women who accept to go for FP services from EPI more or less than you expected at the beginning of the integration process? Why do you think this is happening?

14. In your opinion, what are some of the reasons that some women may still decide not to go for family planning after going to EPI at this facility, even after you share the FP messages with them?

15. How often do you use the EPI/FP job aid? (PROBE: Do you use the job aid for every visit, or only sometimes or not at all? Why?)
   Are there some times when the FP messages were not shared with women who came through EPI? What are some of the reasons?
   What changes could be made to make the job aid more useful or easier to use? [PROBE for changes related to content of messages and format]

16. What adjustments have you made to the approach (if any) since it was first introduced? Have you noticed any changes since the adjustments were made?

17. What advice would you give to a vaccinator at a facility that might start to integrate FP with immunization services?

18. In your opinion, is this integrated service delivery process worthwhile to continue? Why or why not?
Interview Guide: FP Providers

1. How many months or years have you been providing family planning services? How long have you been working at this health facility?

2. At this facility, are immunization and family planning services linked in some way? How are they linked? What do you do differently now than what you did before the linked approach was introduced?

   [Depending on how specific the response is, probe: What do you say to the mother? Do you take a referral card from her? How do you document FP acceptors who were referred from EPI?]

3. Generally, how do you feel about the vaccinators providing FP messages and referrals? How has the process been working?

4. Since the vaccinator(s) began sharing FP messages, have you received any feedback from clients about this new process? Please explain.

5. What makes it easy to do this integrated approach?

   [If needed, probe for training; job aids, support from supervisor, interest of mothers]

6. What makes it difficult to do this integrated approach? What are some of the challenges?

   [If needed, probe for commodity stock-outs, lack of time (ask how much extra time it takes), lack of clarity about steps to take, client flow, documentation/use of register, concern that mother might refuse]

7. In your opinion, what are the good things about this integrated approach for the service providers at this facility? What are the good things about this integrated approach for clients?

8. What type of support have you received to implement this new approach? What additional support would be helpful? [If needed, probe: tools, supervision, refresher trainings, etc.]

9. Do you think the integrated approach has changed the quality of FP services at this facility? Has it changed the use of FP services by mothers? In what ways?

10. What are you hearing from clients about the new process of linking immunization and FP services?

11. Since this approach started, have you noticed any changes in how people feel about baby using family planning? What types of changes?

12. Do most of the EPI-referred clients who come to the FP room leave with an FP method, or not? Why do you think this is?

13. How has this new approach affected your communication, interactions, and relationships with other service providers at the facility, especially the vaccinators and the registrar?

   How frequently do you meet with the vaccinator from your facility to discuss the process? During these meetings, do you review EPI/FP registers and referral data? If yes, is this useful? If not, why not?

14. Describe how the referral process from EPI to FP services works in this facility.

   [PROBE: For women referred from the vaccinator for FP services, do they generally come to the FP room with the referral card? How has the referral card system been working? What do you do with the referral card once you receive it from the client?]
15. Is your facility doing expedited FP referrals for EPI-referred clients (meaning that women who are EPI-referred are prioritized in the line for the CM)? If yes:

How has this process been working?

Has the expedited referral process affected your provision of other services (i.e., antenatal, postnatal)? [PROBE for whether there are longer wait times and whether clients have expressed any frustration]

16. Has FP commodity supply been sufficient to meet the demand for services, or are stock-outs a problem? Please explain.

Have you noticed any worsening or improvement in FP commodity supply since the start of the integration activities? If the situation has improved, what do you think caused the improvements? If it has not improved, why do you think this is?

17. In your FP service provision, what are the important FP counseling points that you raise with baby ma? Which of the FP messages are most accepted by baby ma?

18. Did the EPI-FP training and integration process change any of your views about EPI? About FP? Explain.

Before this integration started, did you ever tell a woman she couldn’t receive a family planning method because her menses hadn't returned? If yes, did your approach change after the start of the EPI-FP integration? Explain.

19. Are there any job aids that you use to guide your counseling? If so, which job aids?

How have you found the LAM job aid? (PROBE: Do you use it with most baby ma, some, or none? Why?)

20. Have you made any adjustments to the approach since it was first introduced? What type of adjustments? Have you noticed any changes since the adjustments were made?

21. What advice would you give to a family planning provider at a facility that might start to integrate FP with immunization services?

22. In your opinion, is this integrated service delivery process worthwhile to continue? Why or why not?
Interview Guide: Officer In-Charge

1. Are you taking steps to link immunization with family planning services at this facility? What steps? What do you do differently now than what you did before the steps were introduced?
   [Depending on how specific the response is, probe: What are the key steps/linkages?]

2. Generally, what is your opinion on this arrangement of having vaccinators share FP messages and referrals at the end of their routine immunization visits?

3. What makes it easy to do this integrated approach?
   [If needed, probe for training, job aids, support from supervisor, interest of mothers]

4. What makes it difficult to do this integrated approach? What are the challenges?
   [If needed, probe for commodity stock-outs, lack of time, lack of clarity about steps to take, client flow, documentation/use of register, concern that mother might refuse]

5. In your opinion, what are the good things about this integrated approach for the service providers at this facility? What are the good things about this integrated approach for clients?

6. What are you hearing from family planning providers and vaccinators about the new process of linking immunization and FP services?

7. What are you hearing from clients or people in the community about the new process of linking immunization and FP services?

8. What is your assessment of the ability of vaccinators to provide this type of FP information and referrals to clients?
   Do you find that the vaccinators have consistently been using the job aid to provide the FP messages and referrals? Why or why not?
   • How have the service linkages affected utilization and quality of immunization services?
   • How have the service linkages affected quality and utilization of FP services?
   • What changes have you observed in FP commodity supply since the start of the integration activities? [Probe to understand whether there has been any worsening or improvement]

   If the situation has improved, what do you think caused the improvements? If the situation has not improved, what do you think is causing the continued challenges?

9. [Only for facilities using privacy screens at EPI]:
   Was the EPI station given a privacy screen?
   • How has the privacy screen been working?
   • Has the privacy screen affected provision of EPI services? Explain.
   • Would you like to continue using the privacy screen at this facility? Why or why not?

10. If the vaccinator or family planning provider is absent from the facility, who provides the services? Has that person been able to appropriately provide these integrated services?

11. What changes have you seen (if any) in provider performance (either for FP or immunization) as a result of the new service linkages? Please explain.

12. What type of support have you received to implement this new approach? What additional support would be helpful? [If needed, probe: tools, supervision, refresher trainings, etc.]
13. Have you made any adjustments to the approach since it was first introduced? What type of adjustments? Have you noticed any changes since the adjustments were made?

14. What ideas do you have for how the service linkages and process can be improved?

15. What advice would you give an officer in charge at a facility that might start to integrate FP with immunization at their facility?

16. In your opinion, is this integrated service delivery process worthwhile to continue? Why or why not?
T6: FGD Guide for Clients Who Accept FP Referral

1. [Introductory roundtable question] How old is your baby? How many times have you brought the baby to this facility for vaccines?

2. When you were getting your baby vaccinated, did the vaccinator talk to you about family planning? What things did the vaccinator say about family planning? What were some of the things that the vaccinator told you about vaccination?

3. In the past year, at this health facility [mention by name], vaccinators have started discussing family planning with all women who bring their babies for vaccine, and referring them for FP visits on the same day. Based on your experience at the health facility today, how do you feel about this? Explain.
   - What are some of the good sides?
   - What are some of the bad sides?

4. What did the vaccinator tell you about when to bring the baby back for the next vaccination visit?

5. Since the vaccinator spoke to you about FP during your visit, do you have different feelings about coming back for your next vaccination visit? (PROBE for whether they are any less likely to return). How? Do you think other women might feel the same or different from you about bringing babies to vaccination if they know FP is discussed in those visits?

6. [Only for clients at facilities using privacy screens at EPI]:
   During your vaccination visit, did you notice a partition around the vaccinator’s station to provide space from other waiting clients? How do you feel about the partition?
   [PROBE for whether the partition made them feel more or less okay talking to the vaccinator about FP and accepting to go for FP services. PROBE for whether the partition may make people think something strange about the EPI services]

7. When the vaccinator spoke with you about family planning, did you feel that you had a choice to go for family planning or not go, or to go at a later time? (Probe to understand whether the clients felt forced to go for FP services)

8. Why did you accept to go for family planning from the vaccination area? What were the things that encouraged you to go for family planning?

9. Were there any difficult things about going from immunization to family planning and receiving family planning services? Explain.

10. With the new way of putting together family planning and immunization services, women who accept from the vaccinator to go for FP services can receive FP services faster, and may be able to go in first to see the CM.
   - From your experience at the facility, did the CM see you first, ahead of clients waiting for other services? If yes, how did you feel about this?
   - Were you happy or not happy about the amount of time you spent waiting before you received the FP services?

11. Did the family planning provider discuss with you the various types of family planning methods that could be suitable for you?
   - If your baby was less than 6 months, did the provider discuss with you about LAM? What did she say about LAM? [Probe for comprehension of 3 criteria]
   - How do you feel about the method you chose? Was it really the method you wanted?
   - If you did not choose a method, what were the reasons?
12. How do you feel about the family planning services available at the health facility? Do you have any suggestions for how the services could be made better?

13. In your own mind, is it good for baby ma to use family planning? Why or why not? What do you see as the good things of waiting some time before having another baby?

14. After coming to the clinic and hearing about how baby ma can use family planning, did you talk with any of your friends or family about what you heard? Explain.

15. How do you feel about the immunization services at this facility? Do you have any suggestions for how the services could be made better?

16. In your own mind, should the vaccinator continue to share FP messages and referrals with baby mas who come for vaccines? Why or why not? What things could help make it better?
FGD Guide for Client Non-Acceptors of FP Referrals

1. [Introductory roundtable question] How old is your baby? How many times have you brought the baby to this facility for vaccines?

2. When you were getting your baby vaccinated, did the vaccinator talk to you about family planning? What things did the vaccinator say about family planning? What were some of the things that the vaccinator told you about vaccination?

3. In the past year, at this health facility [mention by name], vaccinators have started discussing family planning with all women who bring their babies for vaccines, and referring them for FP visits on the same day. How do you feel about this? Explain.
   - What are some of the good sides?
   - What are some of the bad sides?

4. What did the vaccinator tell you about when to bring the baby back for the next vaccination visit?

5. Since the vaccinator spoke to you about FP during your visit, do you have different feelings about coming back for your next vaccination visit? (PROBE for whether they are any less likely to return). How? Do you think other women might feel the same or different from you about bringing babies to vaccination if they know FP is discussed in those visits?

6. [Only for clients at facilities using privacy screens at EPI]:
   During your vaccination visit, did you notice a partition around the vaccinator’s station to provide space from other waiting clients? How do you feel about the partition?
   [PROBE for whether the partition would make women feel more or less okay talking to the vaccinator about FP and accepting to go for FP services. PROBE for whether the partition may make people think something strange about the EPI services]

7. When the vaccinator spoke with you about family planning, did you feel that you had a choice to go for family planning or not go, or to go at a later time? (Probe to understand whether the clients felt forced to go for FP services)

8. After the vaccinator spoke with you about family planning, what were some of the things that made you to not accept to go for family planning on that day?
   - Do you plan to use family planning sometime in the future? Explain.
   - Is there anything that could make it easier for you to accept FP services during another visit?

9. With the new way of putting together family planning and immunization services, women who accept from the vaccinator to go for FP services can receive FP services faster, and may be able to go in first to see the CM. Have you seen this happening at the facility? How do you feel about it?

10. In your own mind, is it good for baby ma to use family planning? Why or why not? What do you see as the good things of waiting some time before having another baby?

11. After coming to the clinic and hearing about how baby ma can use family planning, did you talk with any of your friends or family about what you heard? Explain.

12. How do you feel about the immunization services? Do you have any suggestions for how the services could be made better?

13. In your own mind, should the vaccinator continue to share FP messages and referrals with baby ma who come for vaccine visits? Why or why not? What things could help make it better?
Interview Guide: Program Managers and Supervisors (MCHIP, MOHSW, County)

1. In what ways have you been involved in the EPI-FP integration activities in health facilities in Bong and Lofa counties?

2. What have you seen as some of the benefits of integrating EPI and FP services within health facilities?

3. What have you seen as the challenges of integrating EPI and FP services within health facilities? In your mind, what was the most difficult or challenging thing about integrating EPI and FP services?

4. Did you participate in any of the EPI-FP supportive supervision visits in Bong and Lofa Counties? In what ways did you participate?
   - If you did participate in the visit(s), what were some of your observations?

5. From your observations, what changes have occurred in the way services are delivered at the target facilities as a result of this initiative?
   - How has the EPI-FP integration affected EPI service delivery? How has it affected EPI service utilization?
   - How has the EPI-FP integration affected FP service delivery? How has it affected FP service utilization?

6. From this integration effort, did you observe any concerns related to broader health systems issues (i.e., commodity supply, staffing, etc.)?
   - Are there any changes that you advocated for at national or county level in order to address these health systems challenges? What resulted from your advocacy efforts?

7. Has this integration activity affected how you collaborate with those in other technical areas? Please explain.

8. In your opinion, has this initiative helped to increase a focus on postpartum family planning (family planning for women in the first 1 year postpartum), at facility, county, and/or national levels? Please explain.

9. From your observations, are there any facilities that were performing much stronger on the EPI/FP integration than others? In your opinion, what factors helped to make that facility stronger than others?

10. Before implementation of the integrated service delivery approach began, what were your expectations? Did the results so far match your expectations? Why or why not?

11. At this point, do you think that the integrated service delivery approach is worth scaling up to other facilities? Why or why not?
   - How might health systems challenges like human resource constraints, commodity stock-outs and lack of space affect the ability to scale-up this type of approach? What can be done to address those challenges moving forward?

12. In order for the Ministry and Counties to scale this approach to other facilities, what inputs are needed?
   - What do you see as the major costs involved?

13. Do you have any other suggestions for how the integrated EPI/FP efforts can be strengthened?