



Improving Quality of Postpartum Family Planning in Low-Resource Settings

A Framework for Policy Makers, Managers, and Medical Care Providers



APRIL 2016



Improving Quality of Postpartum Family Planning in Low-Resource Settings

A Framework for Policy Makers, Managers, and Medical Care Providers

APRIL 2016

Tamar Chitashvili, *University Research Co., LLC*Silvia Holschneider, *University Research Co., LLC*P. Annie Clark, *University Research Co., LLC*

DISCLAIMER:

The contents of this report are the sole responsibility of University Research Co., LLC (URC) and do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

Acknowledgements

The framework was developed by Tamar Chitashvili, Silvia Holschneider, and P. Annie Clark of University Research Co., LLC (URC). The authors thank Patricia MacDonald and Erin Mielke of the United States Agency for International Development (USAID) for reviewing the framework and providing valuable feedback. The authors also thank Kathleen Hill, formerly of URC and now of Jhpiego, for her guidance on developing this framework and URC colleagues who supported facility teams in Afghanistan, Mali, and Niger to carry out the postpartum family planning improvement work upon which this framework is based.

This report was prepared by URC under the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project, which is funded by the American people through USAID's Bureau for Global Health, Office of Health Systems. The project is managed by URC under the terms of Cooperative Agreement Number AID-OAA-A-12-00101. URC's global partners for USAID ASSIST include: EnCompass LLC; FHI 360; Harvard T. H. Chan School of Public Health; HEALTHQUAL International; Initiatives Inc.; Institute for Healthcare Improvement; Johns Hopkins Center for Communication Programs; and WI-HER, LLC.

For more information on the work of the USAID ASSIST Project, please visit www.usaidassist.org or write assist-info@urc-chs.com.

Recommended citation

Chitashvili T, Holschneider S, Clark PA. 2016. Improving quality of postpartum family planning in low-resource settings: A framework for policy makers, managers, and medical care providers. Published by the USAID ASSIST Project. Bethesda, MD: University Research Co., LLC (URC).

Table of Contents

List of Tables and Figures	ii
Acronyms	ii
I. Introduction	1
A. Unmet Need for Family Planning During the Postpartum Period	
II. Common Quality Concerns Related to Demand, Services, and Systems	3
III. Improvement Approaches Can Help Overcome Service Delivery and Systems Gaps to Improve PPFP Services	4
A. The Model for Improvement	5
B. Application of the Model for Improvement to PPFP	5
C. Feasible and Sustainable Changes	7
D. Application of Improvement Methods to Strengthen Integrated Family Planning into Routine Postpartum Services: A Case Study from Niger	7
IV. Conclusion	11
Annexes	12
Annex A: Common Quality and System Gaps and Potential Solutions	12
Annex B: Input, Process, Output, and Outcome Indicators for PPFP Improvement Efforts	17
References	20

List of Tables and Figures

Table 1. C	ontinuum of points of contact for PPFP		2
Table 2. A	ims and indicators for the PPFP improvement	intervention in	Niger8
Table 3. E	xamples of facility-level PPFP service delivery	gaps and solu	utions12
Table 4. E	xamples of common barriers to demand for Pl	PFP at comm	unity and household levels14
Table 5. E	xamples of system gaps and solutions to strer	ngthen system	functions15
	lenu of process, output, and outcome indicato ement efforts		
	Menu of process, output, and outcome indicated demand at population/community levels		
Table 8. M	lenu of indicators to assess essential system for	unctions supp	oorting PPFP19
••••••			
Figure 1. In	nputs, processes, and outcomes		5
Figure 2. T	The Model for Improvement		6
-	Percentage of postpartum women who receive e Regional Hospital Poudrière – Niamey distric		•
-	Percentage of women counseled for PPFP, selent PPFP method of choice, 16 sites, Niamey an	_	_
Acron	nyms		
ANC ASSIST	Antenatal care USAID Applying Science to Strengthen and Improve Systems Project	MNCH MOH	Maternal, newborn, and child health Ministry of Health
DPT	Diphtheria-Pertussis-Tetanus	OHS	USAID Office of Health Systems
EBF	•		Plan-Do-Study-Act
EPCMD	Exclusive breastfeeding Ending Preventable Child and Maternal	PMTCT	Prevention of mother-to-child transmission of HIV
	Deaths	PNC	Postnatal care
FP	Family planning		Postpartum
HIV	Human immunodeficiency virus	PPFP	Postpartum family planning
HMIS HTSP	Health management information system Healthy timing and spacing of pregnancy	QI	Quality improvement
ICCM	Integrated community case management	RMNCH	Reproductive, maternal, newborn, and child health
IMCI	Integrated community case management Integrated management of childhood illnesses	UNFPA	United Nations Fund for Population Activities
IUD	Intrauterine device	URC USAID	University Research Co., LLC United States Agency for International
LAM	Lactation amenorrhea method	2 32	Department Department
LARC	Long-acting reversible contraceptive	WHO	World Health Organization

I. Introduction

amily planning (FP) is an essential component of health care provided during the antenatal and postpartum period that can prevent maternal and child care complications and reduce premature mortality. Closely spaced pregnancies within the first year postpartum are associated with higher risks of preterm births, as well as infants who are low birth weight or small for gestational age [1]. If spacing between pregnancies were increased to 24 months, maternal and under-five mortality would decrease by 30% [2] and 13% [3] respectively.

Postpartum Family Planning (PPFP), which aims to prevent the high risk of unintended and closely spaced pregnancies during the first year following childbirth, is one of the highest impact interventions to avoid increased risk of premature birth, low birth weight, fetal and neonatal death, and adverse maternal health outcomes [4].

Despite monumental gains in training and family planning commodities distribution, persistent system, and quality of care gaps continue to prevent many postpartum women from receiving effective PPFP services in low-resource countries. Major barriers include problems at the health facility level, barriers to demand for PPFP, and weaknesses in underlying health system functions needed to support PPFP services. Unmet demand for PPFP services remains high in many countries, resulting in a failure to achieve Healthy Timing and Spacing of Pregnancies (HTSP) and indirectly contributing to high rates of maternal and child mortality.

The United States Agency for International Development (USAID) Office of Health Systems (OHS) supports Ending Preventable Child and Maternal Deaths (EPCMD) by strengthening essential system functions and improving quality of maternal, newborn, child, and FP services. With USAID OHS funding support, the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project, managed by University Research Co., LLC (URC) has developed a postpartum family planning quality framework. The framework is designed to help managers and care providers at all system levels to understand common challenges in PPFP service delivery and specific

solutions that may help to close these gaps. It outlines a new approach to improving PPFP services and outcomes, based on well-developed improvement methods that have proven effective and cost effective in other areas of health care. The framework provides a step-by-step approach for how PPFP programs can benefit from the application of improvement methods. These methods complement training and other inputs that donors have traditionally invested in and proved to be effective to improve PPFP uptake and outcomes. A real life example is provided—a case study from work conducted by ASSIST in Niger—to orient participants on how to plan, implement, continuously assess, and refine interventions to improve PPFP services.

The report is based on extensive experience of USAID ASSIST, managed by University Research Co., LLC, and URC's predecessor health improvement projects in various low- and middle-income settings. It complements the World Health Organization and USAID PPFP 2013 document *Programming Strategies for Postpartum Family Planning* [4] and the 2012 WHO Statement for Collective Action, which numerous organizations around the world have endorsed [5].

While the focus of this framework is on postpartum family planning, effective PPFP improvement efforts must be addressed as one element of a broader package of reproductive, maternal, primary health care, and HIV services for women and their partners including child spacing/family planning services throughout women's reproductive years. USAID ASSIST is working with host country governments and partners in multiple priority countries to strengthen post-partum family planning services and associated system functions.

A. Unmet Need for Family Planning During the Postpartum Period

In developing countries, more than half of reproductive-age women (877 million in 2014) want to avoid pregnancy, but one-fourth of these women (approximately 225 million) are not using any or an effective contraceptive method [6]. These women have an "unmet need" for family planning. Women in the

The most effective contraceptive methods (less than 1 pregnancy per 100 women in a year) include Long Acting Reversible Contraceptives (hormonal implants, IUDs) and permanent methods (female and male sterilization). Lactational Amenorrhea Metyhod (LAM) is a highly effective, temporary method of contraception. Less effective methods (6-12 pregnancies per 100 women a year) are injectables, oral contraceptives, patch, ring, and diaphragm. The least effective methods are male and female condoms, withdrawal, sponge, fertility-awareness based methods, spermicide, and emergency contraceptive pills or a copper IUD after unprotected intercourse. (source: http://www.cdc.gov/reproductivehealth/unintendedpregnancy/pdf/contraceptive_methods_508.pdf)

Unmet need for family planning is defined by the World Health Organization (WHO) as those women who are fertile and sexually active but are not using any method of contraception, and who report not wanting any more children or wanting to delay the next child.

postpartum period are among the groups that have the highest unmet need for family planning [4]. According to an analysis of Demographic Health Survey data from 21 low- and middle-income countries between 2005 and 2012, almost all (95%) women 0-12 months postpartum wanted to avoid pregnancy in the next 24 months, but less than one-third (31%) were using any method of contraception. Sixty-one percent (61%) of postpartum women had an unmet need for family planning [7].

Women who get pregnant too soon or too late after their previous pregnancy, increase risks to both the mother and child. Short inter-pregnancy intervals, less than 18 months, and longer than 59 months are associated with greater risk for adverse perinatal outcomes [8]. Research shows that more than 30% of maternal deaths and 10% of child mortality could be averted if pregnancies were spaced more than two years apart; the effect of waiting 36 months to conceive again would avoid 25 percent of under-five deaths [2].

In addition, parity and age also affect birth outcomes. Research shows that maternal mortality increases as the number of children per woman rises. Studies have found that pregnancies after age 35 are associated with maternal mortality, increased

risk of stillbirth, miscarriage, and child illness. Pregnancies before age 18 are associated with increased risk of postpartum hemorrhage, pre-term birth, stillbirth, school dropout, and poverty [9].

Globally, child marriage (defined as marriage under the age of 18) and proportion of mothers having the first birth before age of 18 have not declined, particularly in EPCMD countries [10]. Nearly one fifth of all births among 15- to 19-year-olds are repeat births [11]. Considering the positive correlation between the number of children per woman and maternal mortality and the fact that about 2.5 million adolescents have unsafe abortions every year, with more serious complications than older women, the need for scaling up PPFP is particularly salient for this target group [9]. Indeed recent data shows that unmet need of FP is generally higher among married women aged 15-19 than among married women aged 20 and older [6].

In addition, unmet need is also almost two times higher among women who want to space births than those who want no more children (36% vs 20%). It is also higher among women in the poorest households, with less education and those living in rural areas, compared to wealthier, well-educated, and urban women. It is higher in low-income countries and poorer regions, particularly Sub-Saharan Africa and Southern East Asia (61% of women with unmet need in developing regions) [6], including all EPCMD priority countries.

Given the high unmet need for family planning during the postpartum period and the potential of preventing adverse maternal and child health outcomes through effective family planning there is a need to integrate FP information and service provision during every contact with women, including ANC, labor and

Table 1: Continuum of points of contact for PPFP

STAGE	Pregnancy —	Labor and delivery, Pre-discharge (0-48 hours)	Postnatal, including prevention of mother-to-child transmission of HIV (PMTCT) (48 hours- 6 weeks)	Infant care (4-6 weeks through 12 months)
SERVICE DELIVERY	Facility-based antenatal care (ANC) Community-based pregnancy screening	Facility-based or home-based with skilled birth attendant	Facility or household visits: If birth at home, within 24 hours of birth If birth in facility, prior to discharge Day 3 (48-72 hours) Between days 7-14 after birth Gweeks Counseling at pharmacies and drug shops	Facility, home visit, or community-based: Immunizations (diphtheria-pertussistetanus [DPT] or Pentavalent 1, 2, 3; measles, rotavirus; boosters; etc.) Well child visits Nutrition/growth monitoring Event days (e.g. vitamin A) Illness visits (e.g. Integrated Community Case Management/Integrated Management of Childhood Illnesses [ICCM/IMCI]) PMTCT/antiretroviral care and treatment Counseling and commodity distribution at pharmacies and drug shops Counseling at the community level

2

delivery, PNC, and immunization and child health care visits, as well as at all levels of the health system (e.g., health care facilities, pharmacies, community-level). **Table 1** outlines the continuum of point of contact for PPFP, outlined by WHO [4].

II. Common Quality Concerns Related to Demand, Services, and Systems

espite monumental gains in training and commodities distribution, persistent system and quality of care gaps continue to prevent many newborns, even when delivered in facilities, from receiving effective resuscitation services in low-resource countries [12].

Major barriers impeding the provision of effective postpartum family planning services include problems at the health facility level, community level, and weaknesses in underlying health system functions needed to support PPFP services. These gaps are outlined below.

Gaps in quality at the facility level

- Provider knowledge, attitude, and practices: Lack of provider knowledge on the full range of modern contraceptive services and limited competencies in providing PPFP services limit the capacity of frontline health workers to provide quality PPFP services, especially related to anticipatory counseling and follow-up for maintenance of method use, especially for women on short-acting methods (e.g., pills, injectables). Many health workers also have limited exposure to client-centered practices tailored to vulnerable populations (e.g., unmarried and married adolescents, high-parity older women, women with co-morbid conditions such as HIV, sex workers, etc.). For example, it is important to take into consideration that the FP planning needs of postpartum women during the 12-month period after birth will differ according to breastfeeding patterns, resumption of sexual activity, return of menses, and return to fertility. Most women and their providers do not fully understand these issues and the relationship to timing of initiating PPFP. Many postpartum women are denied PPFP when they are not menstruating, which results in delayed initiation of PPFP and increased risk of unintended and/or closely spaced pregnancy [4].
- Capacity for continuous improvement: Providers and managers at all levels often do not have the basic skills to assess the quality of postpartum care, identify critical quality of care gaps, and design, implement and monitor PPFP quality improvement efforts.
- Structure and organization of care processes: Poor organization of care processes (with fragmented delivery of FP, routine maternal care, primary care and specialty services), weak management support, and inertia due to "practice as usual" also limit capacity at the facility level to delivery PPFP.

- Vertical programming is also a frequent barrier and reason for providing fragmented family planning and MNCH services (including immunization, routine outpatient care and nutrition services).
- Essential family planning inputs (including physical infrastructure, human resources and commodities, facility-level health information systems): Lack of family planning commodities in postpartum wards and postnatal clinics limit accessibility and constrain choice of method mix (long-acting and permanent methods). The lack of a private space for PPFP counseling for both the postpartum (PP) woman and her husband is often a barrier as well, as is the insufficient number of skilled care providers.

The facility-based PPFP points of contact are, by their nature, services in which FP is integrated with maternal or child services (immunization, nutrition). In addition to the common gaps identified above, illustrative gaps that are characteristic to integrating PPFP in nutrition and immunization services are provided below:

Gaps in integrating PPFP and nutrition services

- Care providers at facility and community levels often do not counsel on LAM and exclusive breastfeeding until 6 months;
- Lack of knowledge of the three LAM criteria at facility and community levels;
- Lack of clear understanding about recommended nutrition and PPFP practices (including breastfeeding, introduction of complementary foods, and HIV/AIDS) among many mothers and husbands;
- Myths/misconceptions about exclusive breastfeeding and LAM (e.g., breastfeeding is associated with having HIV/AIDS, breast milk does not provide sufficient nutrients for the infant, and that colostrum is unhealthy for the infant);
- Perceived side effects of PPFP and lack of partner support.

Gaps in integrating PPFP and immunization services

- Provision of routine immunization services as part of the vertical program or mostly through the mass campaigns;
- Lack of collaboration between vertical programs or funders;
- No designated/dedicated care provider, as part of a combined service provision model particularly at high volume facilities;
- Weak referral systems and follow-up;
- Lack of availability of adequate immunization and family planning commodities, including a range of contraceptive options and free or subsidized services;
- Lack of robust health information system that collects information on both services;
- · Lack of communication materials and job aids.

Gaps at the community and household level

- Client knowledge, attitude, and practices: Limited sexual and reproductive literacy, misconceptions, and limited information about modern FP choices frequently prevent women and girls from utilizing or seeking contraceptive services.
- Cultural norms: Prevailing cultural norms related to family size, pregnancy intervals, breastfeeding pattern, and sexual activity after birth frequently affect women's family planning practices.
- Gender: Gender inequality, women's, and adolescents' unemployment, and low economic, social and gender status in the household can be significant barriers to FP in some communities. Traditional practices (like female genital cutting) as well as limited involvement of male partners in reproductive, maternal, newborn, and child health (RMNCH) care are also substantial barriers that jeopardize women's access to PPFP.

Gaps in supporting health system functions

- Leadership and governance: National policies, strategies, programs, and regulatory tools may not consistently promote improved access to and use of FP services as part of the broader RMNCH policy (including limited availability of national standards, guidelines, and protocols reflecting up-to-date, evidence-based PPFP practices). Government resource allocations to support FP programming may be limited, and resources of NGOs, private sector partners, and donor organizations may not be effectively leveraged and integrated to improve quality of PPFP as part of the countries' broader RMNCH agenda [4].
- Health financing: FP services and commodities may not be part of the basic benefit or insurance package, either for general populations or poor/vulnerable groups. A significant portion of FP investments in many developing countries depends on external (donor) resources, frequently with fragmented geographic or programmatic coverage (e.g., training or commodities in particular districts but not the entire country). Out-of-pocket payments for FP services, commodities, and postpartum/postnatal care can discourage postpartum women from utilizing PPFP services and purchasing necessary supplies.
- Human resources for health: Human resources planning and management is often inadequate to support delivery of high-quality FP services. Problems that frequently exist include inadequate medical education (pre-service, in-service), with limited continuous professional development opportunities and lack of maintenance of skills after training; absence of clinical supervision and performance monitoring; limited availability of skilled care providers and community health workers, particularly in rural areas; and regulatory barriers preventing non-physician care providers from providing PPFP counseling and inserting IUDs postpartum.

- Health management information systems: Lack of available and meaningful data and failure to use available data to improve coverage and quality of postpartum family planning services are the main information system challenges constraining the quality of PPFP programming. Furthermore, medical record systems do not support generation and exchange of medical information across different levels of health service delivery. Limited resources and research capacities also prevent policy makers from understanding FP needs, priorities, and practices in order to develop and implement evidence-based RMNCH policies and FP programs.
- Essential medicines and technologies: System gaps
 prevent countries from timely adoption, registration, and
 procurement of modern, low-cost, high-impact contraceptive technologies. Duplicative or fragmented procurement
 and supply chain systems for essential medicines and
 commodities (including FP commodities, equipment, and
 supplies) create significant barriers to access FP services
 and supplies when needed.

III. Improvement Approaches Can Help Overcome Common Service Delivery and Systems Gaps To Improve PPFP Services

uality improvement (QI) approaches can help overcome many of the common gaps mentioned in Section II.

There is no single best method for improving quality in health care in general, or in PPFP. Instead, improvement is an iterative process to deliver effective, safe, patient-centered care in complex, messy, real-life health care delivery systems.

Improving health care quality needs to focus on all parts of a health care system. Figure 1 provides a framework for examining health services and quality of care. The model proposes that health care requires many types of elements to work together to provide quality health services. These elements are divided into three main categories: 1) Structure/Resources (or "inputs") describe the context in which care is delivered, including policies and procedures, infrastructure, staff, financing, and equipment; 2) Processes are the series of activities needed to provide care, such as medical or laboratory procedures, managing personnel, record and data management, or procurement. 3) Outcomes refer to the effects of health care on the status of patients and populations [12]. These categories are addressed further as part of the discussion on PPFP quality measures in section B below.

Core principles of improvement: Despite the lack of a single best improvement method, there are several principles that underpin much of the improvement work implemented in high-and low-resource settings.

Figure 1: Inputs, processes, and outcomes

STRUCTURE/RESOURCES (INPUTS)

- Physical and organizational characteristics where health care occurs
- People
- Infrastructure
- Materials (e.g. contraceptive)
- Information
- Technology

ACTIVITIES (PROCESSES)

- Focus on the care delivered to patients
- · What is done
- · How it is done

RESULTS (OUTPUTS OR OUTCOMES)

- Effects of health care on the status of patients and population
- · Health services delivered
- · Change in health behavior
- Change in health status
- Patient satisfaction

Source: Donabedian (1966)

Core principles of improvement:

- Effective teamwork (at all relevant system levels) that engages managers, providers, staff, patients, and relevant stakeholders to achieve a common improvement aim;
- An understanding of how processes of care function within a health system and the critical bottlenecks that impede reliable functioning of these health care processes;
- Use of data (tailored to each system level) to continuously measure and track progress toward an explicit improvement aim:
- An understanding and focus on patient needs;
- Regular shared learning.

A key tenet of improvement is that making care better always requires change, although not all change necessarily leads to improvement. Without change, every system will continue to produce the same results it has always produced. Or, in other words, if a system is not changed, it can only be expected to continue to achieve the same results. Managing change is central to improvement efforts, whether or not such efforts are prospective (e.g., defining aims and proactively testing changes to processes of care to try to reach the aim) or retrospective (e.g., auditing and examining adverse events to identify and correct root problems contributing to poor quality).

A. The Model for Improvement

The Model for Improvement has become the foundation for improvement activities for decades around the globe. The model, depicted in **Figure 2**, asks three fundamental questions that form the basis of improvement and includes a cycle of testing the changes made to see if they lead to improvement.

The Model for Improvement involves several steps:

- Developing an aim for improvement (by answering, "what are we trying to accomplish?");
- Developing a measure that tells you if a change is an improvement ("how will we know that a change is an improvement?");

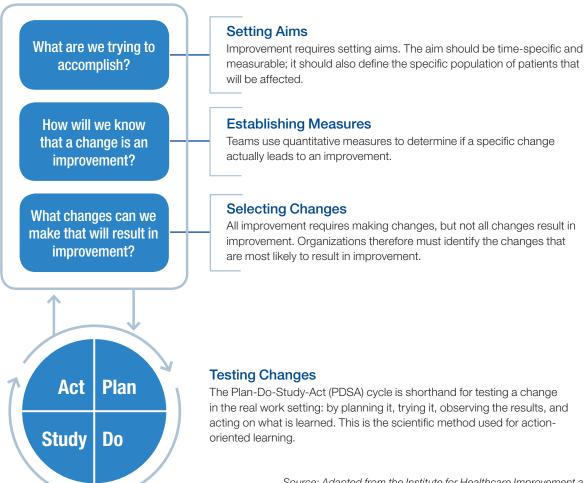
- Thinking about the changes you could make to help you achieve that aim ("what changes can we make that will result in improvement?");
- Testing the hypothesized solution and collect data to see if it yields improvement using a PDSA cycle; based on the results, decide whether to abandon, modify, or implement the solution.

B. Application of the Model for Improvement to PPFP

Forming QI teams to improve PPFP processes and outcomes. Health care processes usually consist of many different steps that are executed by different people. Failing to coordinate these steps and pass on necessary information in a timely and accurate fashion when patients move from one care provider to another often results in gaps in patient care or missed opportunities to provide other essential services such as PPFP. Improvement teams are typically made up of managers, front-line health care workers, staff who are involved in all related processes of care and people affected by the care (patient, families, and communities). For example, PPFP uptake depends on involvement of facility staff providing maternal and childcare (e.g. staff providing routine primary care for women and babies, or providers involved in nutrition counseling or routine immunization), pharmacists or staff responsible for providing commodities, as well community health workers or community representatives. When working in improvement teams, team members add to the knowledge and experience of a single person and share the work needed to improve care. In addition, improvement teams create the energy necessary to encourage others to change, and increase buy-in and reduce resistance to change. They can lead the rest of a facility's personnel in the improvement process.

Developing an aim for improvement in PPFP. All improvement begins with clear aim(s). Defining measurable improvement aim(s) and indicators to measure their progress is essential for supporting the work of local improvement teams (whether a

Figure 2: The Model for Improvement



Source: Adapted from the Institute for Healthcare Improvement and US Department of Health and Human Services.

facility- or district- based team). In turn, developing the capacity of managers and providers at all system levels to define measurable improvement aims is essential for building a system capable of continuous improvement. Improvement aims should be focused on addressing quality gaps. In the context of PPFP, improvement aims should be focused on addressing quality gaps in the demand or provision of PPFP services and regularly testing the progress by tracking small number of indicators.

Tables 3-5 in Annex A provide examples of quality gaps for PPFP at facility and community levels and can be used to identify improvement aims around specific barriers of care. For example, one of the barriers of effective PPFP uptake might be that the health care facility has no system in place to follow up with PP women who missed their appointment for PPFP services. To address this gap, an improvement aim could be "Improve the percentage of post-partum women who were counselled and offered a FP method of their choice (including LAM) within 3 months after delivery by 20% from January 1 to May 31, 2016."

Defining measure(s) for improvement in PPFP. A measure for improvement, or indicator, is used to spur improvement, guide the choice of changes to test, and allow the improvement team to learn. In the Donabedian model to evaluate quality of care [12], indicators can be either input, process, or outcome related. Outcome indicators are the ultimate measure of the performance of a health system and the quality of care that it delivers. Process and structural indicators provide important interim measures or surrogates for quality and system performance, particularly for care processes whose outcomes may be distal to the point of care and/or influenced by factors outside of the health service delivery system.

For example, a process indicator based on the aim statement above would be: "Percentage of women who attended the planned PPFP visit."

Tables 6-8 in Annex B provide indicators to monitor coverage and quality of PPFP services, improve client knowledge, attitude, and practices on contraception and strengthen

supportive functions to improve and strengthen the health system. Many of these indicators are based on and are consistent with monitoring frameworks and tools available globally [13]. The indicators in Tables 4 and 5 are intended for use by facility QI teams (providers, managers, all relevant staff) to track quality of care and demand for PPFP services as part of local improvement efforts (facility and community). The indicators in Table 6 are intended for use by district and regional health management team representatives and managers to support essential system functions. These indicators reflect several documents and the ongoing work of multiple partners including WHO, UNFPA, USAID, and the Maternal and Child Survival Program, with the contribution of family planning experts from all over the world [22, 23]. The degree to which individual indicators are relevant will depend on the system level need and purpose for measuring the indicator.

The Plan-Do-Study-Act Cycle: After a quality improvement team brainstorms and comes up with change ideas that will potentially improve care, the change ideas need to be tested and implemented. Unfortunately, not all change ideas lead to improved outcomes. Poor understanding of the underlying problem or resistance to make the change are the frequent reasons of unsuccessful changes. To address these issues, it is advisable to test possible solutions on a small scale.

A simple and effective tool, known as Plan-Do-Study-Act (PDSA) cycle can be used to test the changes that most likely improve care (see the "Testing Changes" part of **Figure 2**). The PDSA cycle consist of four major steps:

- 1. Plan: the QI team decides:
 - Who should make the change, when it is made, where and for how long
 - How to measure whether or not the change works
- Do: QI team members who agreed to make the change implement it, document problems and unexpected observations, and get necessary data how it works.
- 3. **Study:** QI team members who made the change share with the team how it went. Specifically:
 - The main challenges and enabling factors to implement the change
 - Whether or not the change worked
- 4. Act: QI team members decide what to do next. Depending on the results, the team may adopt the change in entire facility, modify it based on the lessons learned to make it better, or abandon it and try something else.

Once the change idea has been tested and proved to work on a small scale, it is important to implement and institute it as part of the everyday care so that it affects everyone. This involves communicating the change and its benefits within the QI team and beyond (including facility management, other care providers, patients, and community) to gain support and overcome resistance to change.

Illustrative tests of changes highlighted in the section above show that PDSA model be applied to PPFP improvement efforts both at facility and community levels. QI teams at facility and community levels new to improvement need ongoing support in integrated clinical, QI, and data-management capacity building over time.

Useful resource: USAID Global Health eLearning Course. A useful primer on how to improve quality of health care. The course helps learners to demystify health care improvement, describe its underlying principles, and explain how proven interventions can be incorporated into practice for every patient. http://www.globalhealthlearning.org/course/improving-health-care-quality

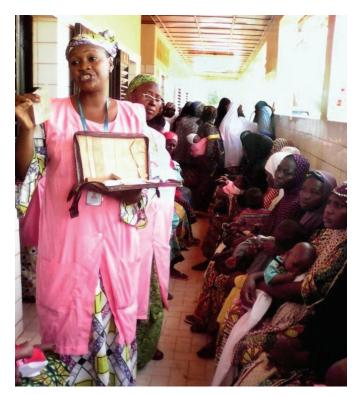
C. Feasible and Sustainable Changes

Quality improvement is a continuous process and involves series of cycles of planning, implementing, regularly assessing, and refining changes to improve compliance with evidencebased care and patient outcomes. While context has a strong influence on which changes may be most feasible, effective, and sustainable for overcoming common quality and system gaps in PPFP in a specific setting, categories of quality and system gaps and effective changes (solutions) are often common across settings. Some of the most common of these gaps are outlined in **Annex A**. Diverse settings can learn from each other to overcome common quality and system gaps. Increasingly, many improvement approaches (e.g., collaborative improvement) mobilize teams to work together across health system levels and geographic sites to identify, test, and share successful changes for overcoming important quality and system gaps (e.g., monthly simulated IUD insertion using structured peer-to-peer observation to maintain provider competence). Promoting regular shared learning among teams helps to accelerate and scale up improvement efforts.

D. Application of Improvement Methods to Strengthen Integrated Family Planning into Routine Postpartum Services: A Case Study from Niger

Background

In Niger, with support from the USAID Office of Health Systems, the USAID ASSIST Project worked with the Ministry of Public Health, managers, and front-line providers to promote HTSP through improving integration of FP counseling and services into routine postpartum services in 16 facilities (two hospitals and 14 health centers) in three districts. The FP health system strengthening activity in Niger sought to achieve better



Family planning group counseling session. *Photo by Zakari Saley, URC.*

health and social outcomes for women and their children by improving quality of people-centered, integrated post-partum FP services to reduce the documented unmet need for family planning.

Identifying gaps in PPFP inputs, processes and outcomes

To choose improvement priorities, the project collected baseline data collected between June-July 2013 from 28 facilities (based on observations of 292 health provider-client service delivery interactions and 283 client exit interviews), which demonstrated significant gaps in the quality of post-partum FP services. Gaps included: inadequate quality and effectiveness of provider counseling; providers not giving their clients a choice of all FP methods; low availability of long-acting reversible contraceptives; lack of awareness among clients of potential side effects of different FP methods; lack of integration of FP into key maternal and child health services; poor commodity availability related to weak procurement and supply chain management; and a lack of community interventions targeted towards male partners and husbands.

Developing improvement aims and measures for improvement

The quality improvement interventions for PPFP in health centers in Niger were based on the Model for Improvement, asking: i) What are we trying to accomplish? ii) How will we know that a change is an improvement? iii) What changes will result in improvement?

Given the quality gaps identified after the baseline assessment, the project developed the following objectives/aims in collaboration with the Ministry of Health.

1. Improve women's informed choice of preferred FP method by improving quality of PPFP counseling and provider-client interaction;

Table 2: Aims and indicators for the PPFP improvement intervention in Niger

What are we trying to accomplish?	How will we know that a change is an improvement?
Aims:	Indicators:
 Improve the informed choice of women and the selection of the preferred method by improving the quality of PPFP counseling and provider- customer interaction; 	% of women who received immediate PPFP counseling before discharge
2. Increase the % of women receiving a modern FP method of their choice through the integration of FP services into routine MNCH care;	% of postpartum women who have chosen a modern FP method before release % of women in the immediate postpartum period who left with a modern FP method of their choice
 Increase the involvement of FP couples counseling to enhance utilization, supported membership and satisfaction of couples with FP services; 	% of couples in immediate postpartum period who received FP counseling before discharge % of postpartum follow-up visits (0-12 months) during which couples were counseled on modern FP methods
4. Improving the safety of FP services by improving adherence to medical eligibility criteria for FP methods.	% of PP women (0-12 months) who received or were referred for FP method based on WHO medical eligibility criteria

Box 1: Changes introduced by facility teams

- Reinforce essential equipment
- Create special space for counseling
- Conduct systematic counseling to all post-partum women
- Conduct providers' refresher training on HTSP and WHO Medical Eligibility Criteria
- Provide clear job descriptions to health providers
- Rotate midwives and assign one in charge
- Document counseling in partogram
- Provide FP counseling to both mothers and partners before discharge
- · Counsel community leaders in FP and HTSP
- Use traditional birth attendants as village counselors
- 2. Increase the % of post-partum women discharged with their FP method of choice by integrating FP services into routine immediate and extended post-partum care;
- Increase male partner involvement in FP counseling to increase uptake, sustain adherence, and improve couple satisfaction with FP services;

4. Improve safety of FP services by improving adherence with FP method medical eligibility criteria.

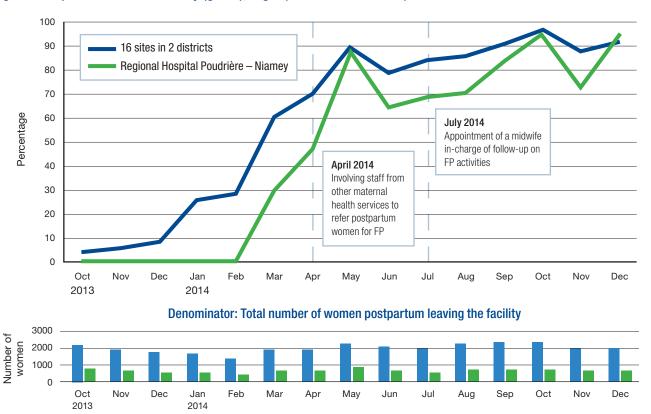
Table 2 lists the indicators that were developed for each improvement aim.

For all these improvement aims, a monitoring plan was developed and made available to the quality improvement teams. The monitoring plan specifies the numerator and denominator for each indicator, the sources of data collection, frequency of collection, and person in charge for the collection. FP activities documentation forms that already existed in the field (records, registers, notebooks etc.) were considered or adapted as data collection sources.

Planning, implementing, and continuously assessing changes to improve PPFP services and outcomes

The 16 QI teams in the 16 targeted sites each had 6 to 10 members including physicians, midwives, nurses, traditional birth attendants, social workers, and community representatives. As part of the FP intervention in Niger, the project in conjunction with the MOH drafted an initial change package, a set of change ideas to provide QI teams the first steps to begin their improvement work. This package was used to identify and test ideas to be tested and implemented in 16 maternities starting in January 2014. **Box 1** lists examples of the changes introduced by facility teams.

Figure 3: Percentage of postpartum women who received FP counseling before exit, 16 sites (in 2 districts) (blue) and the Regional Hospital Poudrière – Niamey (green), Niger (Oct 2013 – Dec 2014)



One of the outcomes the facilities focused on was an increase in the percentage of postpartum women provided with family planning counseling. For example, Poudrière Regional Hospital is one of the two main maternity hospitals to which all women from the Niamey and Tillabery regions come. This hospital created a special FP position held by a midwife who also served as a QI team leader several years back during a predecessor project in Niger. All midwives were part of this QI team. The QI team in Poudriere made many changes to achieve the FP counseling results shown in **Figure 3**, some of which were as follows:

- Designation of a special space for counselling (Mar 2014)
- Involvement and empowerment of staff from other maternal health services on referring PP women for FP (Apr 2014)
- Provision of clear job descriptions to health providers (Apr 2014)
- Rotation of midwives with each taking turns staffing the FP counselling room (Apr 2014)
- Involvement of new delivery room providers in raising awareness and provision of FP services to women (May 2014)
- Revision of the supply chain management system to ensure continuous availability of commodities and thus promote client satisfaction (Jun 2014)

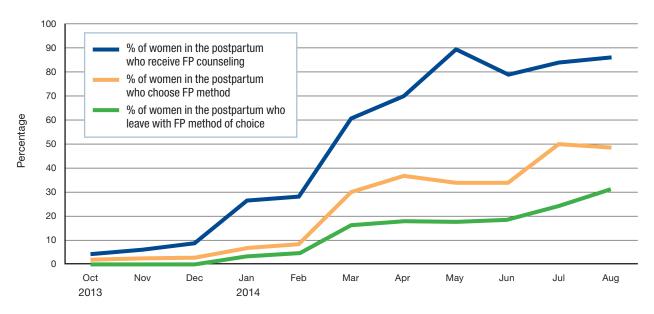
- Appointment of a midwife in-charge of follow up FP activities (Jul 2014)
- Revision of FP schedule to make it available 24 hours a day instead of morning only (Jul 2014)
- Daily check of completed charts (Jul 2014)
- Prioritization of FP services at time of discharge for women who received C-sections (Jul 2014)
- Insertion of PP IUD in the delivery and the operating rooms (Jul 2014).

After implementing the changes, USAID ASSIST-supported sites rapidly improved the integration of FP counseling into routine post-partum care for women, up from 9% in December 2013 to 86% in August 2014 (**Figure 4**).

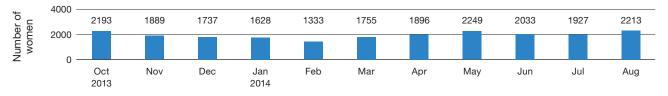
The 16 facilities also made gains in increasing the percentage of post-partum women discharged with a modern FP method of choice (0% in December 2013 to 31% in August 2014) and in increasing the percentage of couples counseled for FP (from 0% in December 2013 to 9.4% in August 2014).

Progress was more gradual for method provision and couple counseling due to system constraints identified in the baseline assessment, including lack of FP commodities and lack

Figure 4: Percentage of women counseled for PPFP, selecting a modern PPFP method, and discharged with modern PPFP method of choice, 16 sites, Niamey and Konni districts, Niger (Oct 2013 – Aug 2014)







of provider skills and motivation to offer variety of modern, effective contraceptive methods.

The project also supported managers and providers to apply improvement approaches to identify and overcome critical barriers in supporting system functions (key facility level inputs) that impede delivery of high-quality PPFP services. For example, improvement teams in the 16 facilities used local data to identify gaps in provider performance and the supply chain and to track provider performance as they introduced changes, such as observation of simulated FP counseling using a simple checklist.

The project results demonstrate how even in a severely resource-constrained environment, gains are possible when managers and front-line providers work together to solve local system challenges and make changes to care delivery processes to improve quality of and coverage with PPFP, the best practice known to reduce preventable child and maternal mortality.

IV. Conclusion

ersistent quality and system gaps prevent many postpartum women from receiving effective FP counseling and services in low-resource settings. Improvement and health system strengthening efforts can overcome critical gaps in delivery of PPFP counseling and services to this group of women with high unmet need. Regular shared learning across sites and monitoring common quality measures at different levels of health systems (community, facility, district, regional, and national) can help accelerate improvements in the provision of PPFP services.

Although still in initial phases, several countries and projects are implementing PPFP improvement and system strengthening efforts as part of the integrated RMNCH services. Learning from successful experiences to initiate, scale up, sustain, and institute PPFP best practices would reduce unmet need on contraception and contribute to end preventable maternal and child deaths.

Annexes

Annex A: Common Quality and System Gaps and Potential Solutions

able 3 summarizes common gaps in postpartum family planning services at the facility level and specific solutions that may help to close these gaps, and **Table 4** highlights common obstacles related to demand for PPFP services and potential solutions at the community and household levels. The summary tables can help facility- and community-level improvement teams to identify gaps in PPFP (including integrated RMNCH) services and test and refine changes to improve PPFP uptake and its outcomes. **Table 5** focuses on health system gaps at the national and subnational levels and provides

examples of potential solutions to strengthen health system functions that are essential for the delivery of high-quality PPFP services. It intends to help policy makers to identify and address health system gaps to improve access to and availability of high quality PPFP services at the facility and community levels. Proposed common gaps and solutions are based on the WHO wider programming strategies for PPFP [4] on one hand and extensive experience of USAID ASSIST and its predecessor projects implementing PPFP programs in various low- and middle-income settings.

Table 3. Examples of facility-level PPFP service delivery gaps and solutions

Category	Common gaps	Illustrative changes
Provider PPFP competence, knowledge, and attitudes	Lack of provider knowledge in range of PPFP services and proficiency in specific skills (e.g., PPIUD insertion) Lack of regular practice of providing monitoring and supportive supervision Lack of staff data management and quality improvement skills Lack of knowledge of the updated WHO medical eligibility criteria for contraceptive use, particularly by postpartum women Lack respect for specific client preferences and needs	 Conduct regular schedule of pre-service, in-service and refresher training Conduct regular monitoring providers and strengthen supportive supervision using checklist; systematic monitoring of individual PPFP counselors/providers Reinforce integrated on-site clinical, QI, data management capacity-building during supervision Utilize the Balanced Counseling Toolkit [15], which incorporates international family planning norms and guidance as recommended by the WHO, including the 2004 Medical Eligibility Criteria for Contraceptive Use [16] and the 2007 Family Planning Global Handbook [17] Regularly measure and reward client-centered practices
Capacity for continuous improvement	Lack of QI capacity among facility staff (managers and skilled birth attendants) to set improvement aims, test changes to processes of care, conduct structured audits, monitor minimum standards of care, and monitor and interpret standard quality measures	 Facility QI teams set improvement aims and improvement targets; test and implement changes CQI should focus on how PPFP is implemented at the facility, such as ANC counseling and method choice, immediate provision of PPFP from birth to discharge, PPFP education, counseling and services offered with immunization and growth monitoring services Facility QI teams conduct regular staff discussions on input, process, output, and outcome measures to assess the progress in improving PPFP services and refine further actions

continued

Table 3. Examples of facility-level PPFP service delivery gaps and solutions continued

Category	Common gaps	Illustrative changes
Structure and organization of care processes	Lack of mix of PPFP methods available at different levels of care (community, outpatient, and inpatient), including long-acting methods	Stock at least three methods suitable for PP women, contingent on service delivery area (e.g.,long acting methods, including LARCs, injectables, pills, condoms etc.)
	PPFP among various PPFP providers and facilities to ensure continuity of care Lack of designated/dedicatedpersonnel providing PPFP services before discharge, Lack of designated personnel ensuring integration	Expand counselling and method mix to include LARCs and permanent methods, as the most effective methods
		Follow-up with district/sub-district or local levels as appropriate
		Introduce lactation amenorrhea method (LAM), as a highly effective temporary methodand counsel on transitioning to long-acting effective
		contraceptive methods, while considering women's preferences Establish a referral mechanism (with appropriate documentation) for all PP women, including those who choose a PPFP method that is not available on site
	Lack of availability of current PPFP job aids, up- to-date clinical protocols, guidelines, screening	Use WHO medical eligibility criteria and women's reproductive intentions to determine candidacy for PPFP methods
	Unclear competencies and distribution of tasks/ roles among care providers	Draw up staffing schedule with designated staff providing on-site PPFP counseling prior to discharge/exit for every PP woman
		Identify designated/dedicated personnel ensuring integration of PPFP into various MNCH services (e.g. immunization, nutrition, routine outpatient visits)
		Link existing routine immunization programs to FP services
		Post PPFP job aids in the PP ward and in the FP service delivery unit
		Define staff roles/tasks and post in medical care area
		Integrate FP and MNCH services, including care for high-burden communicable and no-communicable diseases (e.g., HIV)
		Integrate community education and counselling about HTSP, exclusive breastfeeding, and LAM as routine care
		Promote early postnatal care visits for home births to provide integrated management of childhood illness, exclusive breastfeeding (EBF), and LAM
		Support integration of FP and MNCH services
Essential FP inputs	No designated, equipped private FP counseling space available (e.g., for IUD or implant insertion)	Designate, equip, and maintain a private PPFP counseling space in or near the PP ward
(physical infrastructure,	Inconsistent or missed steps in decontamination, cleaning, and/or sterilization of equipment	Designate and equip a private space for provision of PPFP methods such as IUD and implants
human resources, commodities,	Lack of continuous supply of FP commodities,	Post job aid/protocol for processing and labeling PPFP equipment
and facility-level health information system)	equipment, instruments, and expendable supplies • No standardized procedure for avoiding	Standardize protocol for inventory and procurement of PPFP equipment and supplies
	stock-outs • Facility records and registers are not organized in a way to quickly and easily access essential FP information	Standardize perinatal medical records and registers to capture essential data for every woman
		Hold all providers accountable for entry of essential data through regular assessment of data entry by supervisor with feedback to providers
	Medical records and registers do not capture essential information needed to measure care processes and outcomes	Conduct regular QI team meetings where the quality of care processes and outcomes are regularly measured and results discussed and used for continuous quality improvement

Table 4. Examples of common barriers to demand for PPFP at community and household levels

Category	Common gaps	Illustrative solutions
Client knowledge, attitude, and practices	Limited sexual and reproductive literacy Misconceptions and limited information about modern FP choices Gaps in FP counseling, including: not providing a range of method options including LARCs, not exploring client preferences, and or clients are not supported to choose her preferred method	 Designate staff with PPFP counselling capacity Integrate PPFP information and counseling at all points of service (antenatal care, prevention of mother-to-child transmission of HIV, labor and delivery/pre-discharge, postnatal care, infant and child health care visits), including services that CHWs provide such as support for exclusive breastfeeding/LAM and contraceptive counseling. In addition to one-on-one counseling, include peer counseling, partner counseling, and group counseling Develop and distribute behavior change communication materials Implement health behavioral change and communication initiatives at community level and/or in the mass-media to improve PPFP awareness, positive attitude, and utilization of PPFP services Initiate community based distribution of FP
Cultural norms	 Prevailing cultural/social norms related to family size, pregnancy intervals, breastfeeding pattern, and sexual activity after birth affects women's family planning practices and reproductive behavior Cultural/social norms can also hinder the opportunity to achieve lasting behavioral change at the population level 	 Support community engagement activities to target key decision makers (e.g., parents, husbands, mothers-in-law) to challenge harmful norms Involve all relevant stakeholders (i.e., community members, gatekeepers, youth) in development and implementation of PPFP programs Implement community awareness programs with the goal of strengthening the capacity of communities in addressing negative effects of inequitable norms, mitigating sexual and reproductive health risks, supporting women's free choice of contraception, and reducing early marriage [18]
Gender	Gender inequality, woman and adolescent unemployment, low economic, social and gender status in the household Traditional practices (e.g., female genital cutting) in the community, as well as limited involvement of male partners in RMNCH care are substantial barriers that jeopardize women's access to PPFP	 Implement programs that support the economic empowerment of women (i.e., microfinance, vocational trainings, etc.) Address the needs of women at various ages by focusing on poor and marginalized groups as well as tailoring strategies to the local labor market/economy Plan and implement gender-sensitive interventions that increase access to and use of modern contraception Involve partners, husbands, and family members in FP counselling to support shared decision-making

Table 5. Examples of system gaps and solutions to strengthen system functions

Function	Health system gaps	Illustrative solutions
Leadership and governance	 Inconsistent national policies, strategies, and programs regarding FP services as part of broader RMNCH services and lack of regulatory tools to promote improved access to and use of FP services Limited availability of national standards, guidelines, and protocols reflecting up-to-date evidence-based PPFP practices Government resource allocations not prioritizing FP programming Resources of NGOs, private-sector partners, and donor organizations are not leveraged and integrated to improve quality of PPFP as part of the country's broader RMNCH agenda Lack of manager capacity (district/regional) to improve their own work processes and to support QI (including in PPFP) efforts at all system levels 	 As part of the broader RMNCH agenda, develop policies, programs, and regulatory tools that promote improved access to and use of FP services Strengthen accountability via national FP strategy with specific aims and targets, designated budget, work-plans, and responsible staff (national/local) Update FP guidelines and protocols for different levels of health service delivery system through close involvement of MNCH professional associations, including clear policy on provider cadres authorized to provide specific FP services Leverage resources of NGO, private sector, and donor organizations to improve PPFP as part of the national RMNCH agenda Build capacity of key decision makers to support PPFP improvement efforts at all levels of health system
Health financing	PP services and commodities are not part of the basic benefit or insurance packages for general population or poor/vulnerable groups Significant part of FP investments are mainly donorfunded, with fragmented geographic or programmatic coverage Out-of-pocket payments on reproductive health/FP services, commodities, and postpartum/postnatal care impede PP women to utilize PPFP services and purchase necessary supplies	 Incorporate PPFP services and commodities into basic benefits or insurance packages, as part of the priority RMNCH services for all PP women or for poor/marginalized groups Conduct gap assessment and develop a plan for sustainable PPFP financing with increased contributions from local resources (i.e., government, public-private partnerships) Create innovative financing mechanisms Establish pre-payment and risk-pooling schemes to increase access to FP services and supplies among PP women
Human resources for health	Human resources planning and development is inadequate to support delivery of high-quality FP services Problems at all levels of medical education (preservice/in-service) with limited continuous professional development opportunities Absence of clinical supervision and performance monitoring Limited availability of skilled care providers and community health workers, particularly in rural areas Regulatory barriers preventing non-physician care providers from providing PPFP counselling and inserting IUDs postpartum	 Develop human resources policies, strategies, and programs to address continuous capacity building and staff retention, and in turn ensure availability of human resources with FP skills/competencies at various levels of health service delivery system Create professional development opportunities and regulatory incentives for non-physician care providers to insert IUDs postpartum Integrate PPFP best practices into comprehensive RMNCH competency-based pre- and in-service training curricula Institute incentives for regular professional development opportunities and delivery of PPFP services in rural/underserved areas Build management capacity of regional and district health management teams to supervise PPFP services

continued

Table 5. Examples of system gaps and solutions to strengthen system functions continued

Category	Common gaps	Illustrative changes
Health management information systems	 Lack of available, high-quality data and weak use of data to improve coverage and quality of PPFP services, including non-existent, inadequate or inconsistent national registers to capture FP/PPFP data Approved medical record documentation and organization do not support generation and exchange of medical information across different levels of health service delivery The above plays a major drawback in reaching PP women with FP services Lack of standard FP/PPFP quality measures at facility and national level, integrated in routine health management information systems (HMIS) Weak data management, analysis and use at service delivery and national levels Limited resources and research capacities prevent policy makers in understanding FP needs, priorities, and practices (both supply and demand side) to develop and implement evidence-based RMNCH policies and FP programs 	 Support development of standardized medical records, national registers, and facility/population level surveys to support evidence-based clinical, policy, and programmatic decisions Capture FP/PPFP data Incorporate sentinel PPFP quality measures (input, process, output, outcome, impact) into routine HMIS Build research, data management, and analysis capacity among designated staff at different levels (facility, district, regional, national) to collect, analyze, and use PPFP quality measures for continuous QI across health service delivery system Adopt electronic medical records and eHealth information technologies to increase efficiency of data generation and information sharing to track and follow up postpartum women at every point of contact with health service delivery system (all levels)
Essential medicines and technologies	System gaps prevent timely adoption, registration, and procurement of modern, low-cost, high-impact contraceptive technologies Poor oversight of FP commodity quality and technical specifications Weak regulatory environment for efficient inventory and procurement of FP commodities Duplicative or fragmented procurement and supply chain systems for essential medicines and commodities (including FP commodities, equipment, and supplies) which create significant barriers to access FP services and supplies when needed No standards or guidelines for commodity inventory, procurement, distribution, and maintenance	 Develop regulatory tools and enforcement mechanisms to ensure timely adoption and registration of modern, low-cost, high-impact contraceptive technologies Develop and enforce mechanisms to oversee quality and technical specifications of FP commodities Include FP commodities in the national list of essential medicines Integrate FP commodities, equipment, and supplies in established/unified procurement and supply chain systems for essential medicines and commodities (e.g., equipment for immediate postpartum and interval IUD insertion) Develop/update FP commodity management guidelines and operational manuals/tools for standardized forecasting, procurement, distribution, and tracking of FP commodities Build capacity to forecast needed FP commodities

Annex B: Input, Process, Output, and Outcome Indicators for PPFP Improvement Efforts

Tables 6-8 provide indicators to monitor coverage and quality of PPFP services, improve client knowledge, attitude, and practices on contraception and strengthen supportive functions to improve and strengthen the health system.

Table 6. Menu of input, process, output, and outcome indicators for assessing facility-level PPFP improvement efforts

Number/percent of clients for whom FP medical eligibility criteria is documented	Output and outcome Number/percent of clients who can cite at least three
	 Number/percent of clients who can cite at least three
angiamity arterna to addamented	modern FP methods
Number/percent of PP women receiving FP counseling prior to discharge (stratified by provider)	Number/percent clients who demonstrate basic understanding of their selected FP method
 cadre: nurse, physician, etc.) Number/percent of PP women receiving FP counseling during their last visit at clinic (stratified by 	Number/percent of post-partum women who leave with a FP method of choice (stratified by short-acting, long-acting, or no method selection)
Number/percent of male partners receiving PPFP counseling with their female partners	Number/percent of postpartum women who achieved 6 months exclusive breastfeeding and transitioned to another modern contraceptive methods when LAM criteria no longer meet
method not available in the facility Number/percent of HIV-positive clients who	Number/percent of postpartum women exclusively breastfeeding and practicing lactation amenorrhea method at six weeks postpartum
counseling, receiving modern method and/or referral) Number/percent of care providers who adhere to specific PPFP service standards (counseling,	Number/percent of postpartum women who are not exclusively breastfeeding or non-breastfeeding who are using a modern contraceptive method by six weeks postpartum
Number/percent of antenatal care (ANC) clients who have received information and counseling regarding PPFP and exclusive breastfeeding Percent of clients who report having a private	Number/percent of women referred for and using contraception six weeks postpartum Number/percent of women with modern FP methods obtained from care provider (stratified by provider cadre)
provider • Number/percent of ANC clients who have chosen a PPFP method and have it marked on their ANC client card • Number/percent of medical facilities that regularly (at least every three months) assess the quality of PPFP services (i.e., have documented assessment results with at least two measurements and changes tested	 Number/percent of women who are using or intend to use long-acting reversible contraceptives or permanent methods in the future Number/percent of FP service providers who can state at least three evidence-based healthy timing and spacing of pregnancy recommendations (stratified by provider cadre)
	counseling prior to discharge (stratified by provider cadre: nurse, physician, etc.) Number/percent of PP women receiving FP counseling during their last visit at clinic (stratified by reason of visit and provider cadre) Number/percent of male partners receiving PPFP counseling with their female partners Number/percent of PP women referred for a FP method not available in the facility Number/percent of HIV-positive clients who received FP services within the facility (stratified by counseling, receiving modern method and/or referral) Number/percent of care providers who adhere to specific PPFP service standards (counseling, prescription, administration) Number/percent of antenatal care (ANC) clients who have received information and counseling regarding PPFP and exclusive breastfeeding Percent of clients who report having a private individual PPFP decision-making session with a provider Number/percent of ANC clients who have chosen a PPFP method and have it marked on their ANC client card Number/percent of medical facilities that regularly (at least every three months) assess the quality of PPFP services (i.e., have documented assessment results

Table 7. Menu of input, process, output, and outcome indicators to assess interventions to increase PPFP demand at population/community levels

Input	Process	Output and outcome
 Existence of government budget allocation to support behavioral change communication interventions Number of PPFP communication messages/materials created Existence of law that prohibits all forms of female genital cutting Existence of national policies/regulatory tools that limit access to PPFP services for unmarried and/or young individuals Existence of law requiring consent of both parties to a marriage Availability of PPFP information tailored to male partners 	Number/percent of PP women counselled on FP stratified by point of service delivery (PMTCT, predischarge, postnatal visit, infant/child care visit, PMTCT) and by provider cadre Number/percent of communication messages of communication campaign tested on a target audience Number/percent of PP women receiving early postnatal visits for home birth with FP counselling Number/percent of audience participating in community mobilization events	 Number/percent of women who recall hearing/seeing a message on PPFP Number/percent of women who recall the three LAM criteria Number/percent of women who correctly identify at least three modern methods of FP Number/percent of women who perceive high risk of unintended pregnancy in particular FP practices Number/percent of women who anticipate that a particular FP practice will reduce their risk of unintended pregnancy Number/percent of PP women who practice recommended behavior Number of times PPFP messages are aired on the radio/television in a given period Number of mobile PP messages women received on FP Number/percent of population who knows at least one source of modern contraceptives Number/percent of population who know at least one provider of PPFP services Number/percent of PP women who can state at least one benefit from delaying the next pregnancy at least two years after last live birth Average age at first marriage Number/percent of population with favorable attitude towards particular FP products, practice, or services Number/percent of PP women who believe that family, spouse, or community should adopt a particular FP practice Percent of women who have completed at least 10 years of education Percent of women who believe they participate in household decision making Percent of men who support the use of modern contraception for themselves or their partners

Table 8. Menu of input, process, output, and outcome indicators to assess essential system functions supporting PPFP

Input Process (adherence with standards) Output and outcome

- Number/percent of districts and facilities with an annual budget for FP/PPFP commodities and provider/manager training, supervision, and improvement activities
- Existence of national/ subnational, organizational policies or strategic plans that promote equitable and affordable access to high-quality PPFP services, commodities, and information
- Existence of national RMNCH policy that promotes access to and use of high-quality PPFP
- Sentinel PPFP quality measures (input, process, output, outcomes) are included in HMIS
- Percent of government health budget allocated to PPFP services
- Percent of government health budget allocated to contraceptives
- Government expenditures on PPFP and contraceptives for the fiscal year as percentage of allocated budget
- Existence of updated FP guidelines/ protocols (updated according to international FP best practices for different levels of care)
- Existence of human resources policies/ strategies and programs to address continuous capacity building and staff retention with FP skills and competencies
- Existence of private sector incentives to increase private sector's involvement in FP financing and service/commodity delivery

- Number/percent of trained providers in FP/ PPFP (initial or refresher) within reporting period by cadre type and organizational unit (e.g., district)
- Number/percent of medical facilities regularly reporting and/or measuring PPFP indicators
- Number/percent of interagency meetings conducted per year (with participation of MOH, donors, NGO, and private sector) to ensure safe and timely delivery of contraceptives
- Percent of medical facilities reporting stock-out of contraceptives in a given time period
- Number of times when stock-outs occurred for any contraceptives or other FP commodities at a central warehouse in a given time period
- Percent of medical facilities that regularly collect information on inventory balance on contraceptives and quantity of contraceptives/ commodities dispensed/ issued

- Number of civil society organizations involved in developing and evaluating FP policies
- Percent of budget allocated to PPFP services and commodities (stratified by sources of funding: government, donor, private)
- Percent of health facilities where PPFP services and commodities are available (stratified by location, facility type, FP services/commodities)
- Number or percent of maternal and child health service delivery points in a designated area that offer PPFP integrated with other services subset by the type of service
- Percent of postpartum women with unmet need for contraception
- Key contraceptive methods included on the national essential medication list
- Household's monthly out-of-pocket payment on FP services and commodities (when used) as a percentage of household monthly income (stratified by method used)
- Percent of women reporting limited affordability of FP services/medications as primary reason of unmet need of contraception²
- Percent of population having physical access to FP services (within less than two hours distance from FP care provider)
- Percent of regional and district management teams that regularly supervise PPFP services
- PPFP counselling and skill-building curricula is incorporated in pre-service and/or in-service medical education
- Sexual and reproductive health curriculum incorporates PPFP best practices
- Contraceptive prevalence rate³
- Percent of births reported as unintended

² The percent of women (ages 15 to 49) within the first year following the birth of their most recent child who desire to either stop or postpone childbearing who are at risk or have returned to fertility, but are not currently using a contraceptive method (http://www.cpc.unc.edu/measure/prh/rh_indicators/specific/family-planning-and-maternal-and-child-health/percent-of-postpartum-women-with-unmet-need-for)

⁹ Percent of women of reproductive age (15-49) who are using (or whose partner is using) a contraceptive method at a particular point in time

References

- Cleland, J, Conde-Agudelo A, Peterson H, Ross J, Tsui A. "Contraception and health." The Lancet (2012) 380(9837): 149-156.
- 2. Cleland J, Bernstein S, Ezeh A, Faundes A, Glasier A, Innis J. "Family planning: the unfinished agenda." *The Lancet* (2006) 368(9549):1810-1827.
- 3. Rutstein SO. "Further evidence of the effects of preceding birth intervals on neonatal infant and under-five-years mortality and nutritional status in developing countries: Evidence from the Demographic and Health Surveys." DHS Working Papers. Calverton: Macro International (2008).
- World Health Organization. "Programming strategies for postpartum family planning." Geneva: WHO (2013).
- 5. "Statement for Collective Action for Postpartum Family Planning." Geneva: WHO (2013). http://www.who.int/reproductivehealth/publications/family_planning/statmt_ppfp/en/
- 6. Singh S, Darroch JE, Ashford LS. "Adding It Up: The Costs and Benefits of Investing in Sexual and Reproductive Health 2014." New York: The Guttmacher Institute (2014).
- Moore Z, Pfitzer A, Gubin R, Charurat E, Elliott L, Croft T. "Missed opportunities for family planning: an analysis of pregnancy risk and contraceptive method use among postpartum women in 21 low-and middleincome countries." *Contraception* (2015).
- 8. Pathfinder International, Extending Service Delivery Project. HTSP101: Everything you want to know about healthy timing and spacing of pregnancy (2007). http://www.popline.org/node/200994
- 9. USAID. Healthy timing and spacing of pregnancies: A family planning investment strategy for improving the health and well-being of women and girls (2012). https://www.usaid.gov/sites/default/files/documents/1864/calltoaction.pdf
- 10. USAID. Acting on the call: Ending preventable child and maternal deaths report (2015). https://www.usaid.gov/sites/default/files/documents/1864/USAID-2015-Acting-on-the-Call.pdf
- 11. Todesco M, Gay J. Early and unintended pregnancy: global guidance for an education sector response. Paris: UNESCO; (Forthcoming).
- 12. Donabedian A. "Evaluating the quality of medical care." The Milbank Memorial Fund Quarterly (1966):166-206.
- 13. "Family Planning and Reproductive Health Indicators Database." MEASURE Evaluation PRH. Available at: http://www.cpc.unc.edu/measure/prh/rh_indicators/indicator-summary.
- 14. Khan S, Abderrahim N, Arnold F. Contraceptive trends in developing countries. Calverton: Macro International (2007).
- 15. León FR, Vernon R, Martin A, Bruce L. "The Balanced Counseling Strategy: A toolkit for family planning service providers." Washington: Population Council (2008).
- 16. World Health Organization. Reproductive Health. Medical eligibility criteria for contraceptive use. Geneva: World Health Organization (2010).
- 17. World Health Organization. Reproductive Health. Family Planning: A Global Handbook for Providers: Evidence-based Guidance Developed Through Worldwide Collaboration. Baltimore: Johns Hopkins CCP-INFO Project (2007).
- 18. Santhya KG, Ram U, Acharya R, Jejeebhoy SJ, Ram F, Singh A. "Associations between early marriage and young women's marital and reproductive health outcomes: evidence from India." *International Perspectives on Sexual and Reproductive Health* (2010):132-139.

USAID APPLYING SCIENCE TO STRENGTHEN AND IMPROVE SYSTEMS PROJECT

University Research Co., LLC 7200 Wisconsin Avenue, Suite 600 Bethesda, MD 20814

> Tel: (301) 654-8338 Fax: (301) 941-8427 www.usaidassist.org