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Assessing the adoption and diffusion of family planning integration into postabortion and postpartum care in Togo, West Africa

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An abstract of
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Abstract

Assessing the adoption and diffusion of family planning integration into postabortion and postpartum care in Togo, West Africa

By Helen F. Baker

Background: Family planning is a cost-effective intervention. Integrating family planning into postabortion and postpartum care increases contraceptive uptake, thereby reducing maternal and child morbidity and mortality.

Purpose: This mixed methods case study sought to understand the integration of family planning into postabortion and postpartum care in Togo. It examined factors associated with modern contraceptive use for women up to 24 months postpartum, monitoring and evaluation of integrated family planning services, and barriers and facilitators to access to and use of postabortion and postpartum family planning.

Methods: The study included an analysis of the 2013/14 Togo Demographic and Health Survey (DHS) of 2749 women who gave birth within 24 months of the survey, 41 key informant interviews, 25 health facility assessments, a review of health service record formatting, and participant observation.

Results: The DHS analysis found factors significantly associated with postpartum contraceptive use included: health facility birth, having a postnatal check-up, the youngest child's receiving the first DPT vaccination, desiring to space births, husband's agreeing on desired number of children, longer breastfeeding duration, and living outside of the Savanes region. Monitoring and evaluation of integrated health services was limited. The reproductive, sexual, and child health monitoring system included multiple steps of data entry, idiosyncratic systems of recording integrated health services, and limited use of technology. Barriers to provision and use of postabortion and postpartum family planning included a lack of training for health care workers, lack of necessary equipment, high levels of mistrust related to family planning methods, and limited understanding of the health benefits of spacing pregnancies. Facilitators of integrated family planning included more health care worker training, providing more family planning education to the population, and ensuring all necessary equipment and supplies were available and functional.

Conclusions: This study highlights the potential for integrated health services in Togo. Programming and research should focus on developing interventions for offering contraception during immunization, intrapartum, and postpartum care; health care worker training related to providing integrated family planning services; community education about the benefits of birth spacing; and developing systems to record integrated health services without increasing health care providers' workload.

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Chapter 1: Introduction

Between 66% and 85% of maternal, newborn, and child (under 5 years) deaths in Africa could be avoided by implementing evidence-based interventions (Whitworth, Sewankambo, & Snewin, 2010). Family planning is one of the most cost-effective, high-return interventions to improve health around the world (World Health Organization, 2011). The integration of family planning into reproductive and sexual health services, specifically into postabortion and postpartum care, in facilities and at the community level, are well-established successful means of improving uptake and use of family planning (Shah, Santhya, & Cleland, 2015; Tripney, Kwan, & Bird, 2013). Increasing birth spacing through postpartum family planning use is well established as a way to reduce maternal and child morbidity and mortality (Conde-Agudelo, Rosas-Bermudez, Castano, & Norton, 2012; Conde-Agudelo, Rosas-Bermudez, & Kafury-Goeta, 2006, 2007; FHI 360, 2012). About 90% of abortion-related morbidity could be reduced by using effective contraception; when effective contraceptive methods are used widely and available, the total abortion rate declines (Bongaarts & Westoff, 2000; Cleland et al., 2006). Family planning could prevent over 30% of maternal deaths and 10% of child deaths if pregnancies were spaced more than two years apart (Cleland et al., 2006).

What is now needed is implementation research to identify and promote practical interventions to address obstacles to family planning integration into postpartum and postabortion care (Cleland, Shah, & Daniele, 2015; Winfrey & Rakesh, 2014). This is especially urgent in sub-Saharan Africa, and specifically in West Africa, where the rates of maternal and neonatal mortality are high and the contraceptive prevalence is low (Cleland et al., 2006; Cleland, Ndugwa, & Zulu, 2011; United Nations, 2011). West

Africa has an average of 5.5 children per woman, which is one of the highest fertility rates and fastest growing populations in the world (Cleland et al., 2011). In Francophone west Africa, about three women die from reproductive health complications every hour (World Health Organization, 2011) and one child under five dies every minute (United Nations Children's Fund (UNICEF), 2011).

The National Institutes of Health define implementation research as "the study of methods to promote the integration of research findings and evidence into healthcare policy and practice" (National Institutes of Health, 2014). Implementation research is used to understand the behavior of healthcare professionals and other stakeholders as key variables in the uptake, adoption, and implementation of evidence-based interventions and addresses the gaps between health care innovations and their delivery to patients and communities (Gary, 2010). It assumes that empirically-supported interventions cannot be integrated into any setting without close attention to the local context and that simply publishing guidelines is not sufficient to assume these interventions will be put into practice (National Institutes of Health, 2013). Improving implementation health research, especially in low income countries, is key to identifying workable solutions (National Institutes of Health, 2014; World Health Organization, 2014). Interest in implementation research has increased in the last decade- in 2006 the Journal of Implementation Science was launched ("Implementation Science Journal," N.D.) and in 2011, the National Institutes of Health (NIH) began the Training Institute for Dissemination and Implementation Research in Health (National Institutes of Health, 2014).

This mixed methods case study applies the *Integration of targeted health interventions into health systems conceptual framework (Atun, de Jongh, Secci, Ohiri, & Adeyi, 2010)* to assess the extent of and factors influencing the integration of family planning into postpartum and postabortion care services in Togo, West Africa. Atun et al. (2010) developed this framework to assist with the analysis and mapping of the nature and extent of health program integration in a variety of settings including the many factors which influence the integration process. These factors include defining 1) the health problem, 2) the intervention, 3) the adoption system, which includes values, interests, and power dynamics between key stakeholders, 4) health system characteristics, which include governance, financing, planning, service delivery, monitoring and evaluation, and demand generation, and 5) the broad context which includes cultural, economic, and demographic factors. Figure 1.1 has adapted the framework to gain further understanding of the elements within the integration of family planning into postabortion and postpartum care in Togo.

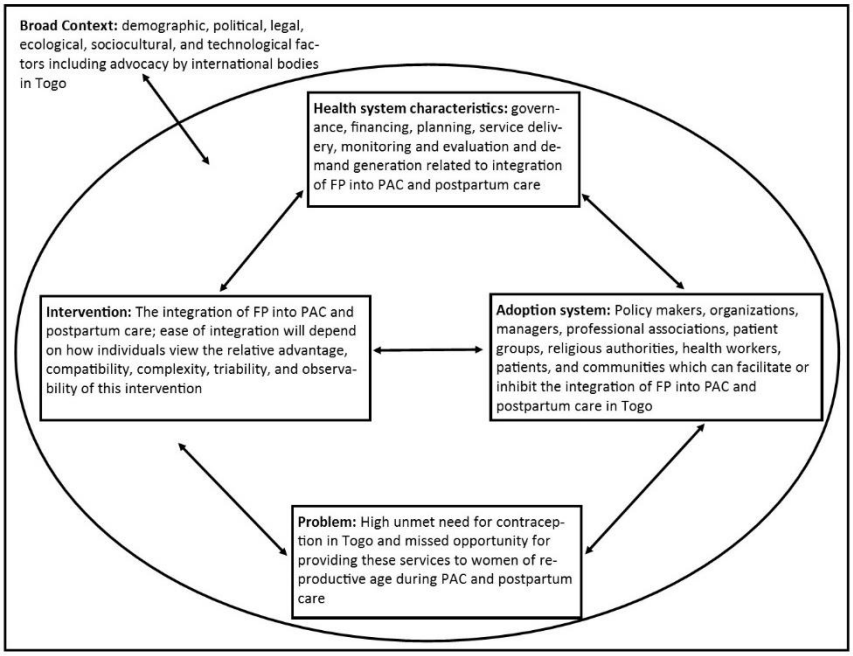


Figure 1.1 The integration of targeted health interventions into health systems conceptual framework of factors influencing the integration of family planning into postabortion and postpartum care in Togo (Adapted from Atun et al. (2010))

Integration of family planning into other sexual and reproductive health services

The World Health Organization defines integration of services as "the organization and management of health services so that people get the care they need, when they need it, in ways that are user-friendly, achieve the desired results, and provide value for money" (World Health Organization, 2008). It can be challenging to operationalize the delivery of integrated family planning into other sexual and reproductive health services which are normally offered separately (Caro, Farrell, Landry, & Alalade, 2013), as is the case with postabortion and postpartum family planning. The integration of family planning into reproductive and sexual health services in facilities and at the community level is a well-established successful means of improving uptake and use of family planning (Shah et al., 2015; Tripney et al., 2013).

Postabortion care family planning

Postabortion care (PAC) includes three critical components: 1) emergency treatment for complications of spontaneous or induced abortion, 2) family planning counseling and service provision, and when available, evaluation and treatment of sexually transmitted infections and HIV counseling and testing; and 3) community empowerment through community awareness and mobilization (United States Agency for International Development (USAID), 2004). Researchers have found that there is an unmet need for family planning amongst PAC clients. A review of the literature on PAC services indicated that on average 50% of PAC clients were interested in using contraception, but only 27% left a facility with a contraceptive method (Kidder, Sonneveldt, & Hardee, 2004). Postabortion care family planning (PAC-FP) is one of a small selection of proven high-impact practices in family planning which have been

identified by a technical advisory group of international experts (High Impact Practices in Family Planning (HIP), 2012). When these interventions are implemented, scaled up, and institutionalized, these family planning high impact practices will likely maximize investments in comprehensive family planning strategy (United States Agency for International Development (USAID), 2011).

Postpartum family planning

Postpartum family planning (PPFP) is the prevention of unintended and/or closely spaced pregnancies in the period following childbirth. This is the period, usually considered 12-24 months, when closely spaced pregnancy can lead to the greatest risk for the mother and infant (Conde-Agudelo et al., 2012). It is also a period of increased contact with health care professionals (United States Agency for International Development (USAID) et al., N.D.). Short birth intervals (less than 18-24 months) present health risks to mothers and children. A birth interval under 18 months is associated with preterm birth, low birth weight, and intrauterine growth retardation (Conde-Agudelo et al., 2006). Short birth intervals are also associated with increased risk of placental abruption, premature rupture of membranes, and uterine rupture in cases of vaginal birth after cesarean delivery (Conde-Agudelo et al., 2007; DaVanzo, Hale, Razzaque, & Rahmand, 2007). Moreover, intervals of less than 24 months are linked to elevated mortality in newborns, infants, and children under age 5 (Cleland et al., 2006). Hypothesized mechanisms of these adverse health outcomes for the mother include maternal nutritional depletion, incomplete healing of uterine scar from previous cesarean, and abnormal remodeling of endometrial blood vessels and for the newborn, infant, and young child maternal folate depletion, cervical insufficiency, suboptimal lactation related

to breastfeeding-pregnancy overlap, sibling competition for resources, and transmission of infectious diseases (Conde-Agudelo et al., 2012).

It is necessary that women can access comprehensive contraceptive technologies during this postpartum period (Hounton, Winfrey, Barros, & Askew, 2015). Data from Demographic and Health Surveys (DHS) from 27 countries showed that 65% of women who are 0-12 months postpartum did not want to become pregnant in the next 12 months but were not using any form of contraception (Ross & Winfrey, 2001). In systematic reviews of PPFP, antenatal care visits, skilled birth attendance, as well as higher wealth, education, and place of residence were associated with an increase in the use of PPFP (Rutaremwa et al., 2015; Winfrey & Rakesh, 2014).

Overview of Togo

This study was conducted in Togo, a small, narrow country on the west coast of Africa bordered by Ghana, Benin, Burkina Faso, and the Gulf of Guinea. The country stretches 360 miles to the north from the gulf and is 100 miles wide at the broadest part. Togo has a population of approximately 6.9 million (Central Intelligence Agency, 2014) and the official language is French. Togo has a unique history in West Africa - gaining independence in 1960 after being first a German (1884 – 1914) and then a French colony. The current ruling party in Togo has been in power since 1967. Togo has historical and cultural ties with its former colonial powers, however, neither have invested heavily in Togo. Bilateral donors cut off assistance to Togo in the early 1990s due to the ruling party's poor democracy implementation. Donor presence remains minimal. Despite its compact size, Togo has over 37 ethnic groups as well as a variety of religions. In 2004, the University of Lomé estimated that the population was 33% traditional animist, 28%

Catholic, 14% Muslim, 10% Protestant, and 10% other Christian (United States Department of State Bureau of Democracy, 2013). Literacy rates for individuals over 15 years old are 73% for men and 48% for women (Central Intelligence Agency, 2014). Togo is one of the poorest countries in the world, with a per capita annual income estimated at $850 in 2009 (Guengant, Kamara, DeMetz, & Attama, 2010). According to the World Bank, about 60% of Togolese live under the national poverty level (Population Reference Bureau (PRB), 2011).

Health Care System

The health care system is made up of the Ministry of Health and all its departments, health training schools, special agencies, and university hospitals. All six regions have a regional health directorate and regional services. Thirty-five health districts manage all healthcare services and facilities including district hospitals, community clinics, and dispensaries. In addition to the public health system, the government also oversees religious or privately-owned health facilities (Ministere de la Sante Togo, 2001).

Reproductive Health Policy and Partnerships

There are many health policies and programs in Togo that may have contributed to improvements in maternal and child health in the last 20 years, a period during which Togo has seen great improvement in maternal and child health statistics. Seventy-five percent of births took place in a health facility in the three years preceding the 2013/14 DHS, an increase from 49% in the 1998 DHS survey, and there was a large increase in vaccination rates (Anipah et al., 1999; Ministère de la Planification du Développement et de l'Aménagement du Territoire (MPDAT), Ministère de la Santé, & ICF International,

2015). In addition, the GDP per capita increased from $378 in 2005 to $643 in 2014 and the per capita health expenditure increased from $13 in 1995 to $34 in 2005 (United Nations Statistics Division, 2016; World Health Organization, 2015).

Between 1998 and 2014, the government of Togo changed policies and launched numerous programs aimed to improve the reproductive and sexual health of the population. These included enacting the 2004 National Political Program for Reproductive Health (Republique Togolaise & United Nations, 2008), passing the 2007 Reproductive Health Law (L'Assemblee nationale Togolaise, 2007), adopting the 2008 National Strategy for Reproductive Health (McDavid & Kodjo, 2012), opening additional schools of midwifery and medicine in Kara and increasing the number of national placement tests conducted each year for health care workers to secure employment in the public sector in 2009 (Ministère de la santé et de la protection sociale, 2017), launching the African Union's Campaign on accelerated reduction of maternal, newborn and child mortality in Africa in 2010 (CARMMA) (CARMMA, 2015; Centre d'Information des Nations Unies Lomé, 2010; McDavid & Kodjo, 2012), developing a national volunteer program which includes recruiting unemployed health care workers and paying them a living stipend to work in government health facilities in 2011(Volontaires ONU, 2011), and creating a National Health Insurance program in 2012 (Institut National d'Assurance Maladie, N.D.). These activities aimed to increase institutional delivery and availability of emergency obstetric care as well as to ensure the rights of all people to access quality family planning services through greater funding, more health care workers, supportive policies, and increased mass media campaigns to educate the population on healthy practices related sexuality and reproduction.

Partnerships between the Togolese government and international and donor agencies have also contributed to the increased access to sexual and reproductive health services. In 2011, the African Development bank funded the building of 22 health facilities (Republique Togolaise, 2011), in 2013 Engenderhealth launched "*Agir pour la planification familiale" (AgirPF),* a five year project funded by USAID to expand women's access to and use of family planning services in Lomé, Sokodé, and Kara (Agir pour la Planification Familiale (AgirPF), N.D.), and in 2014, Togo participated in a training and support program developed by the NGO Jhpiego, which trained antenatal, maternity, and postnatal care providers in PPFP counseling for all contraceptive methods and IUD insertion in the postpartum period (Pleah et al., 2016). In addition, there have been ongoing partnerships with the United States Peace Corps which focuses the work of volunteers, following the request of the Togolese government, in maternal and newborn health (Peace Corps, N.D.) and with the United Nations Fund for Population Activities (UNFPA) which funds most contraceptive supplies in Togo (Ministere aupres de la Presidence de la Republique Charge de la Planification du Developpement et de l'Amenagement du Territoire & UNFPA, 2012).

Family planning, postabortion and postpartum family planning

The total fertility rate in the country has decreased from 6.4 children per woman in 1988 to 5.2 in 1998 to 4.8 in 2013 (Ministère de la Planification du Développement et de l'Aménagement du Territoire, Direction Générale de la Statistique et de la Comptabilité Nationale, Ministère de la Santé, Measure DHS, & ICF International, 2014). The modern contraceptive prevalence for married women has increased from 3%

in 1988 to 7% in 1998 to 17% in 2013. In 2016 approximately 36% of married women of reproductive age had an unmet need for contraception (Track20, 2016).

Abortion, the seventh leading cause of hospitalization, is considered a priority health problem by the Togolese Ministry of Health (Division Informations Statistiques Etudes et Recherche (DISER), 2013; Ministere de la Sante Togo, 2001). N'Bouke, Calves, and Lardoux (2012) conducted an analysis using data from the 1988 and 1998 DHS as well as data from the 2002 Survey on Family Planning and Induced Abortion in Lomé to estimate the rates and trends of induced abortion in the capital city. They found that there was a significant increase in the prevalence of abortion, especially among younger individuals between 1988 and 2002. During this period, the annual abortion rate increased from 24 per 1000 ever sexually active women aged 15-19 to 28 per 1000, and from 33 per 1000 to 44 per 1000 ever sexually active women aged 20-24 years. This trend is a problematic because of the stigma that exists around sex outside of marriage, and the challenge in accessing family planning centers (Mensch, Grant, & Blanc, 2006; Olukoya, 2004; Silberschmidt & Rasch, 2001). Abortion was legalized with the 2007 Reproductive Health Law in cases of rape, incest, fetal impairment, or for the health of the mother (L'Assemblee nationale Togolaise, 2007).

There has been a recent interest in the quality and accessibility of PAC including PAC-FP. In 2008, Togo participated in the *Best Practices to Scale up PAC for Lasting Impact* in Senegal and developed a program to improve PAC with stakeholders (Fikree, Murgore, & Forrester, 2014). Four health facilities were chosen as a sample to implement this process, three of which were in the Maritime region and one was in the Kara region. In 2012 an assessment of these four health facilities was conducted. The findings showed

that while there was an interest and dedication to providing PAC services and the staff were trained, a lack of equipment in the health care facilities hindered the ability of these providers from offering services. In addition, the monitoring systems put in place for PAC were informal and not standardized between the four facilities (Fikree et al., 2014).

One of the first evaluations of PPFP took place in Togo in the 1990s integrating three short messages to mothers on the benefits of family planning as part of the infant vaccination protocol and informing the mothers of on-site services availability; there was an increase in uptake of postpartum family planning with this intervention (Huntington & Aplogan, 1994).

Study Aims and Research Questions

This mixed methods case study had three specific aims and associated research questions (RQ):

Aim 1: Assess national trends in and factors associated with women's use of postpartum family planning in Togo. **RQ1**: What changes have occurred in terms of the unmet need and use of postpartum family planning in Togo between 1998 and 2013/14? **RQ2**: What factors are significantly associated with postpartum family planning use in Togo in 2013/14?

Aim 2: Analyze and map the nature, extent, and pattern of adoption and assimilation of postabortion and postpartum family planning in urban health facilities in Lomé, Sokodé, and Kara, the three largest cities. **RQ1**: What are the goals, objectives and commitment of governing bodies in Togo around the problem of unmet need for family planning, particularly in relation to meeting this need through the integration of family planning into postabortion and postpartum care? **RQ2**: What financing exists in relation

to increasing the integration of family planning into postabortion and postpartum care? **RQ3**: What planning exists in relation to the integration of family planning into postabortion and postpartum care? **RQ4**: To what extent are key stakeholders (policy makers, organizations, managers, health workers, patients) interested in increasing the integration of family planning into postabortion and postpartum care? **RQ5**: What capacity does the health system have in relation to the service delivery of the integration of family planning into postabortion and postpartum care? **RQ6**: Are there currently monitoring and evaluation systems in place to measure the provision of integrated family planning services into postabortion and postpartum care? **RQ7**: Are there demand generation activities as part of increasing access and use of integrated postabortion and postpartum family planning?

Aim 3. Analyze how the nature, extent and pattern of adoption and assimilation of postabortion and postpartum family planning is influenced by factors related to the problem, the attributes of the intervention, the adoption system, health system characteristics, and the broader context in which diffusion occurs. **RQ1**: How has governance, financing, and planning influenced the integration of family planning into postabortion and postpartum care? **RQ2**: What are the barriers and facilitators to the integration of family planning into postabortion and postpartum care in relation to service delivery and health system characteristics, especially in relation to harder to reach populations? **RQ3**: How does monitoring and evaluation of the integration of family planning into postabortion and postpartum care influence the planning and adoption system? **RQ4**: How is demand generation of accessing family planning during the postabortion and postpartum period influenced by the broad context of Togo?

Study Design and Methods

A mixed methods case study was used to address the study aims and questions. As described previously, study aims and questions were guided by the *Integration of targeted health interventions into health systems conceptual framework* (Atun et al., 2010). This approach allowed for in-depth exploration from multiple perspectives of the complexity of elements around the implementation and use of PAC-FP and PPFP in context and a degree of triangulation (Thomas, 2011). The methods included secondary analysis of the 2013/14 Togo Demographic and Health Survey (n=2749 women), health facility assessments (n=25 facilities), key informant interviews (n=41 informants), and participant observation.

Organization of the Dissertation

The dissertation document does *not* address all of the research questions. Rather, it is comprised of five chapters including this introductory chapter, three manuscripts followed by a synthesis. The three manuscripts are described, briefly, below.

The first manuscript entitled, *Factors associated with postpartum family planning use in Togo*, uses data from the Togo 2013/14 Demographic and Health Survey to explore the influence of women's socio-demographic characteristics and health service utilization during the postpartum period on uptake of family planning (Aim 1, RQ2).

The second manuscript, '*It is a question of determination': a case study of monitoring and evaluation of integrated family planning services in Togo*, describes reporting systems for reproductive, sexual, and child health services and the different ways in which these systems have been adapted to capture integrated family planning services. The manuscript examines the influence of values, interests, and power dynamics

between key stakeholders- the adoption system- on quality of the monitoring and evaluation and discusses the implications for policy, programming, and research (Aim 2, RQ6 and Aim 3, RQ3).

Lastly, the third manuscript, *Barriers and facilitators of family planning integrated into postabortion and postpartum care in urban areas of Togo,* describes the capacity of the health system to provide family planning integrated into postabortion and postpartum care, and factors that facilitate or impede this integration in three urban areas of Togo. It highlights the implications of these factors for programming and policy (Aim 2, RQ5 and Aim 3, RQ2).

References

Agir pour la Planification Familiale (AgirPF). (N.D.). *AgirPF-Togo support to MOH to build capacity for providing FP*. Action plan EngenderHealth. Lomé.

Anipah, K., Mboup, G., Ouro-Gnao, A., Boukpessi, B., Messan, P., & Salami-Odjo, R. (1999). *Enquête démographique et de santé au Togo – 1998*. Retrieved from Calverton, Maryland, USA: http://dhsprogram.com/pubs/pdf/FR101/FR101.pdf

Atun, R., de Jongh, T., Secci, F., Ohiri, K., & Adeyi, O. (2010). Integration of targeted health interventions into health systems: a conceptual framework for analysis. *Health Policy Plan, 25*(2), 104-111. doi:10.1093/heapol/czp055

Bongaarts, J., & Westoff, C. (2000). The potential role of contracption in reducing abotion. *Studies in Family Planning, 31*.

CARMMA. (2015). Financing of maternal, newborn, and child health interventions. Retrieved from http://carmma.org/update/financing-maternal-newborn-and-child-health-interventions

Caro, D., Farrell, B., Landry, E., & Alalade, E. (2013). *Integration family planning into fistula services: An evaluation and case study*. Retrieved from New York: http://www.culturalpractice.com/site/wp-content/uploads/2013/07/Fistula-Care-FP-integrationEval-Report-FINAL-16-July-2013.pdf

Central Intelligence Agency. (2014). Togo. *The World Factbook*. Retrieved from https://www.cia.gov/library/publications/the-world-factbook/geos/to.html

Centre d'Information des Nations Unies Lomé. (2010). Le President Faure Gnassingbe lance officiellement la CARMMA au Togo. Retrieved from http://Lomé.sites.unicnetwork.org/2010/09/14/le-president-faure-gnassingbe-lance-officiellement-la-carmma-au-togo/

Cleland, J., Bernstein, S., Ezeh, A., Faundes, A., Glasier, A., & Innis, J. (2006). Family planning: the unfinished agenda. *Lancet, 368,* 1810-1827.

Cleland, J., Shah, I., & Daniele, M. (2015). Interventions to Improve Postpartum Family Planning in Low- and Middle-Income Countries: Program Implications and Research Priorities. *Stud Fam Plann, 46*(4), 423-441. doi:10.1111/j.1728-4465.2015.00041.x

Cleland, J., Ndugwa, R., & Zulu, E. (2011). Family planning in sub-Saharan Africa: progress or stagnation? *Bulletin of the World Health Organization, 89*(2), 137-143.

Conde-Agudelo, A., Rosas-Bermudez, A., Castano, F., & Norton, M. (2012). Effects of birth spacing on maternal, perinatal, infant, and child health: a systematic review of causal mechansims. *Studies in Family Planning, 43*, 93.

Conde-Agudelo, A., Rosas-Bermudez, A., & Kafury-Goeta, A. C. (2006). Birth spacing and risk of adverse perinatal outcomes: a meta-analysis. *JAMA, 295*(15), 1809-1823. doi:10.1001/jama.295.15.1809

Conde-Agudelo, A., Rosas-Bermudez, A., & Kafury-Goeta, A. C. (2007). Effects of birth spacing on maternal health: a systematic review. *Am J Obstet Gynecol, 196*(4), 297-308. doi:10.1016/j.ajog.2006.05.055

DaVanzo, J., Hale, L., Razzaque, A., & Rahmand, M. (2007). Effects of interpregnancy interval and outcome of the preceeding pregnancy on pregnancy outcomes in Matlab, Bangladesh. *BJOG : an international journal of obstetrics and gynaecology, 114*, 1079-1087.

Division Informations Statistiques Etudes et Recherche (DISER). (2013). *Principaux Indicateurs de la Sante*. Ministère de la Sante Republique Togolaise. Lomé.

FHI 360. (2012). *Postpartum family planning: New research findings and program implications*. Retrieved from Research Triangle Park, NC: https://www.fhi360.org/resource/postpartum-family-planning-new-research-findings-and-program-implications

Fikree, F., Murgore, S., & Forrester, H. (2014). *Strengthening Postabortion family planning in Togo, Mobilizing Resources*. Retrieved from Washington D.C.: http://www.e2aproject.org/publication/strengthening-postabortion-family-planning-in-togo/

Gary, J. (2010). Global health experts seek to transform programs through implementation science. *Global Health Matters, 9*(2).

Guengant, J., Kamara, Y., DeMetz, N., & Attama, S. (2010). *Comment Beneficier du dividende demographique? La demographie au centre des trajectoires de developpement dans les pays de l'UEMOA: Country analysis: Togo*. Retrieved from http://umr-developpement-societes.univ-paris1.fr/fileadmin/UMRDS/page-perso/pdf/etude_Togo_1.pdf

High Impact Practices in Family Planning (HIP). (2012). *Postabortion family planning strengthening the family planning component of postabortion care*. Retrieved from Washington, DC: http://www.fphighimpactpractices.org/resources/postabortion-family-planning-strengthening-family-planning-component-postabortion-care

Hounton, S., Winfrey, W., Barros, A. J., & Askew, I. (2015). Patterns and trends of postpartum family planning in Ethiopia, Malawi, and Nigeria: evidence of missed opportunities for integration. *Glob Health Action, 8*, 29738. doi:10.3402/gha.v8.29738

Huntington, D., & Aplogan, A. (1994). The integration of family planning and childhood immunization services in Togo. *Studies in Family Planning*, 176-183.

Implementation Science Journal. (N.D.). Retrieved from http://www.implementationscience.com/about

Institut National d'Assurance Maladie. (N.D.). Connaitre l'assurance maladie. Retrieved from http://www.inam.tg/index.php/connaitre-l-assurance-maladie

Kidder, E., Sonneveldt, E., & Hardee, K. (2004). *Who receives PAC services? Evidence from 14 countries*. Retrieved from Washington, DC:

http://transition.usaid.gov/our_work/global_health/pop/techareas/pac/kidder_hardee.pdf

L'Assemblee nationale Togolaise. (2007). *10 janvier 2007 sur la sante de la reproduction*. Retrieved from Lomé: http://www.legitogo.gouv.tg/annee_txt/2007/Pages%20from%20jo_2007-002-7.pdf

McDavid, E., & Kodjo, A. (2012). *Repositioning Family Planning in Togo: A Baseline.* Retrieved from Washington D.C.: www.healthpolicyproject.com

Mensch, B. S., Grant, M. J., & Blanc, A. K. (2006). The Changing Context of Sexual Initiation in sub-Saharan Africa. *Population and Development Review, 32*(4), 699-727.

Ministère aupres de la Presidence de la Republique Charge de la Planification du Developpement et de l'Amenagement du Territoire, & UNFPA. (2012). *Evaluation Finale 5eme Programme Togo-UNFPA 2008-2013 Rapport Final*. Retrieved from Lomé: http://web2.unfpa.org/public/about/oversight/evaluations/docDownload.unfpa?docId=116

Ministère de la Planification du Développement et de l'Aménagement du Territoire, Direction Générale de la Statistique et de la Comptabilité Nationale, Ministère de la Santé, Measure DHS, & ICF International. (2014). *Enquête Démographique et de Santé Togo 2013 Rapport Préliminaire*. Retrieved from Rockville, Maryland: http://pdf.usaid.gov/pdf_docs/PA00K1V3.pdf

Ministère de la Planification du Développement et de l'Aménagement du Territoire (MPDAT), Ministère de la Santé, & ICF International. (2015). *Enquête Démographique et de Santé au Togo 2013-2014.* Retrieved from Rockville, Maryland, USA: http://dhsprogram.com/pubs/pdf/FR301/FR301.pdf

Ministère de la santé et de la protection sociale. (2017). Lutte contre la mortalité maternelle, Néonatale et Infantile. Retrieved from http://sante.gouv.tg/fr/content/presentation-et-chiffres-cles-2

Ministere de la Sante Togo. (2001). *Normes du District Sanitaire au Togo*. Retrieved from Lomé: www.who.int/medical_devices/countries/tgo.pdf

N'Bouke, A., Calves, A.-E., & Lardoux, S. (2012). Induced Abortion in Lomé, Togo: Trends and Role in Fertility Decline. *Population (english edition), 67*(2), 309-336.

National Institutes of Health. (2013). Dissemination and Implementation Research in Health. Retrieved from http://grants.nih.gov/grants/guide/pa-files/PAR-13-054.html

National Institutes of Health. (2014). Implementation Science Information and Resources. Retrieved from http://www.fic.nih.gov/researchtopics/pages/implementationscience.aspx

Olukoya, P. (2004). Reducing maternal mortality from unsafe abortion among adolescents in Africa. *African Journal of Reproductive Health*, 57-62.

Peace Corps. (N.D.). Projects in Togo. Retrieved from https://www.peacecorps.gov/togo/projects/

Pleah, T., Hyjazi, Y., Austin, S., Diallo, A., Dao, B., Waxman, R., & Karna, P. (2016). Increasing Use of Postpartum Family Planning and the Postpartum IUD: Early

Experiences in West and Central Africa. *Glob Health Sci Pract, 4 Suppl 2*, S140-152. doi:10.9745/ghsp-d-16-00039

Population Reference Bureau (PRB). (2011). *Fiches des donnes sur la Population mondiale 2011*. Retrieved from Washington, DC:

Republique Togolaise. (2011). Lancement du projet "Bid Sante". *Republique Togolaise*. Retrieved from http://www.republicoftogo.com/Toutes-les-rubriques/Politique/Lancement-du-projet-BID-Sante

Republique Togolaise, & United Nations. (2008). *Suivi des objectifs du millenaire pour le developpement au Togo*. Retrieved from Lomé, Togo: http://www.undp.org/content/undp/en/home/librarypage/mdg/mdg-reports/africa-collection.html

Ross, J. A., & Winfrey, W. L. (2001). Contraceptive use, intention to use and unmet need during the extended postpartum period. *International Family Planning Perspectives*, 20-27.

Rutaremwa, G., Kabagenyi, A., Wandera, S. O., Jhamba, T., Akiror, E., & Nviiri, H. L. (2015). Predictors of modern contraceptive use during the postpartum period among women in Uganda: a population-based cross sectional study. *BMC public health, 15*, 262. doi:10.1186/s12889-015-1611-y

Shah, I. H., Santhya, K. G., & Cleland, J. (2015). Postpartum and Post-Abortion Contraception: From Research to Programs. *Stud Fam Plann, 46*(4), 343-353. doi:10.1111/j.1728-4465.2015.00036.x

Silberschmidt, M., & Rasch, V. (2001). Adolescent girls, illegal abortions and "sugar-daddies" in Dar es Salaam: vulnerable victims and active social agents. *Social Science & Medicine, 52*(12), 1815-1826.

Thomas, G. (2011). *How to do your case study: a guide for students and researchers*. Los Angeles, Calif.; London: SAGE.

Track20. (2016). Togo FP2020 Core Indicator Summary Sheet: 2016. Retrieved from http://track20.org/download/pdf/2016%20FP2020%20CI%20Handouts/english/Togo%202016%20FP2020%20CoreIndicators.pdf

Tripney, J., Kwan, I., & Bird, K. S. (2013). Postabortion family planning counseling and services for women in low-income countries: a systematic review. *Contraception, 87*(1), 17-25. doi:10.1016/j.contraception.2012.07.014

United Nations. (2011). *World contracptive use 2010*. Retrieved from Department of Economic and Social Affairs, Population Division: http://www.un.org/esa/population/publications/wcu2010/WCP_2010/Data.html

United Nations Children's Fund (UNICEF). (2011). *Levels and Trends in Child Mortality: Report 2011. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation*. Retrieved from New York: http://www.childinfo.org/files/Child_Mortality_Report_2011.pdf

United Nations Statistics Division. (2016). Togo. *Work Statistics Pocketbook.*

United States Agency for International Development (USAID). (2004). *Postabortion care strategy*. Retrieved from Washington, DC: http://www.postabortioncare.org/sites/pac/files/USAID_PAC_Strategy.pdf

United States Agency for International Development (USAID). (2011). *High impact practices in family planning*. Retrieved from Washington, DC: http://www.fphighimpactpractices.org/

United States Agency for International Development (USAID), Australia AID, World Health Organization, UNFPA, Bill and Melinda Gates Foundation, UKaid, . . . Save the Children. (N.D.). *Statement for Collective Action for Postpartum Family Planning*. Retrieved from http://www.who.int/reproductivehealth/topics/family_planning/Statement_Collective_Action.pdf

United States Department of State Bureau of Democracy, H. R. a. L. (2013). *Togo 2013 International Religious Freedom Report*. Retrieved from Washington D.C.: http://www.state.gov/documents/organization/222319.pdf

Volontaires ONU. (2011). Lancement officiel du Programme de Volontariat National au Togo. Retrieved from https://www.unv.org/fr/news/lancement-officiel-du-programme-de-volontariat-national-au-togo

Whitworth, J., Sewankambo, N. K., & Snewin, V. A. (2010). Improving implementation: building research capacity in maternal, neonatal, and child health in Africa. *PLoS Med, 7*(7), e1000299. doi:10.1371/journal.pmed.1000299

Winfrey, W., & Rakesh, K. (2014). *Use of family planning in the postpartum period*. Retrieved from Rockville, Maryland, USA: http://dhsprogram.com/pubs/pdf/CR36/CR36.pdf

World Health Organization. (2008). *World Health Organization. 2008. Integrated health services—What and why?* Retrieved from Geneva: http://www.who.int/healthsystems/technical_brief_final.pdf

World Health Organization. (2011). UNFPA and World Bank (2010) Trends in Maternal Mortality: 1990–2008; Estimates developed by the WHO, UNICEF: UNFPA and World Bank. Available: http://whqlibdoc.who. int/publications/2010/9789241500265_eng. pdf.

World Health Organization. (2014). Alliance for Health Policy and Systems Research. Retrieved from http://www.who.int/alliance-hpsr/en/

World Health Organization. (2015). *Togo: WHO statistical profile*. Retrieved from Geneva: http://www.who.int/gho/countries/tgo.pdf?ua=1

Chapter 2: Factors associated with postpartum family planning use in Togo

Abstract

The health benefits of spacing births greater than 24 months apart and the use of postpartum family planning have been well established. Using the 2013/14 Togo Demographic and Health Survey (DHS) data, we examine the association of modern contraceptive use for women who gave birth within 24 months of the DHS survey and four health service use indicators – antenatal care, institutional delivery, postpartum care, and immunization of the last child in addition to socio-demographic factors. Factors which were found to be associated with modern contraceptive use in postpartum women in Togo included having their last birth in a health facility, having a postnatal check within two months of birth, the youngest child having received the first DPT vaccine, wanting to space children more than two years from last birth or not have more children, not living in the Savanes region, husband's desire for number of children agreeing with the woman's, and increasing breastfeeding duration. These findings highlight the need for programming which specifically strengthens the integration of contraception into reproductive and immunization services in Togo.

Introduction

Short birth intervals (less than 18-24 months) present health risks to mothers and children. A birth interval under 18 months is associated with preterm birth, low birth weight, and intrauterine growth retardation (Conde-Agudelo, Rosas-Bermudez, & Kafury-Goeta, 2006). Short birth intervals are also associated with increased risk of placental abruption, premature rupture of membranes, and uterine rupture in cases of vaginal birth after cesarean delivery (Conde-Agudelo, Rosas-Bermudez, & Kafury-

Goeta, 2007; DaVanzo, Hale, Razzaque, & Rahmand, 2007). Moreover, intervals of less than 24 months are linked to elevated mortality in newborns, infants, and children under age five (Cleland et al., 2006). Hypothesized mechanisms of these adverse health outcomes for the mother include maternal nutritional depletion, incomplete healing of uterine scar from previous cesarean, and abnormal remodeling of endometrial blood vessels and for the newborn, infant, and young child maternal folate depletion, cervical insufficiency, suboptimal lactation related to breastfeeding-pregnancy overlap, sibling competition for resources, and transmission of infectious diseases (Conde-Agudelo, Rosas-Bermudez, Castano, & Norton, 2012).

Postpartum family planning (PPFP) is a cost-effective intervention that could prevent 30% of maternal and 10% of child deaths by increasing birth interval spacing by reducing the short birth intervals (Cleland et al., 2006; Prata et al., 2011). In addition to mitigating the risk of the adverse outcomes listed above, PPFP reduces the risk of miscarriage, anemia, and maternal death (Hounton, Winfrey, Barros, & Askew, 2015). The postpartum period often includes increased contact with health care professionals (United States Agency for International Development (USAID) et al., 2013); this contact should be exploited to provide PPFP to women (Speizer, Fotso, Okigbo, Faye, & Seck, 2013; Warren, Mwangi, Oweya, Kamunya, & Koskei, 2010). Unmet need for family planning is higher during the first year after childbirth than any other time (Vernon, 2009). Observational data from 57 countries in 2005-13 showed that 62% of women less than 12 months after childbirth have an unmet need for contraception (Rossier, Bradley, Ross, & Winfrey, 2015). Early unmet need for family planning contributes to repeat pregnancies and short birth intervals.

Although the problem of short birth intervals in relation to PPFP is well documented globally, little is known about the characteristics of recently delivered mothers who are (or are not) using PPFP in West Africa (Eliason et al., 2013). In particular, there is very little research on women's use of PPFP in Togo, a small francophone country on the west coast of Africa (Pleah et al., 2016). While studies on PPFP have been conducted using multiple country Demographic and Health Survey (DHS) data, some authors call for the analysis of individual countries to learn more specific detail about each country (Winfrey & Rakesh, 2014). Togo is rarely included in multi-country DHS studies in relation to reproductive health because only three DHS surveys have taken place in Togo since 1988. Moreover, the reproductive health calendar is not completely captured in the 2013/14 Togo DHS, which excludes it from many of the analyses of multiple countries having a complete reproductive health calendar.

Unmet need for family planning is high in Togo. In 2014, the Government of Togo committed as part of the FP2020 Movement to increase the contraceptive prevalence rate from 13.2 in 2010 to 24.3 by 2017(Family Planning 2020, 2014), primarily through implementation of the 2007 Reproductive Health Law. This was to include scaling-up best practices in reproductive health and family planning, improving the financing of contraceptive products and contraceptive supply chain, and increasing family planning advocacy (Family Planning 2020, 2014). Four percent of Togolese women die due to pregnancy related causes and the prevalence of modern contraceptive use by married women, 17%, in 2016, is relatively low (Population Reference Bureau, 2016; (Ministère de la Planification du Développement et de l'Aménagement du

Territoire (MPDAT), Ministère de la Santé, & ICF International, 2015). The need to understand factors that influence PPFP is pressing.

In relation to service delivery, certain types of encounters with the health care system have been associated with a higher proportion of women using PPFP in other countries. These encounters include using antenatal care (Adanikin, Onwudiegwu, & Loto, 2013; Omu et al., 1989; Winfrey & Rakesh, 2014), giving birth in a health facility (Hounton et al., 2015; Rutaremwa et al., 2015; Saeed, Fakhar, Rahim, & Tabassum, 2008; Sayegh & Mosley, 1976; Winfrey & Rakesh, 2014), having a postpartum checkup (Winfrey & Rakesh, 2014), and accessing immunization services (Hounton et al., 2015).

Socio-demographic factors have also been associated with increase in women's use of PPFP. These factors include older age (Rutaremwa et al., 2015; Winfrey & Rakesh, 2014), higher parity (Hounton et al., 2015), increased desire to space or limit births (Winfrey & Rakesh, 2014), urban residence (Winfrey & Rakesh, 2014), higher level of education (Gebreselassie, Rutstein, & Mishra, 2008; Sileo, Wanyenze, Lule, & Kiene, 2015), greater wealth (Gebreselassie et al., 2008; Winfrey & Rakesh, 2014), protestant religion (Rutaremwa et al., 2015), exposure to family planning in the media (Rutaremwa et al., 2015), and agreement of male partner on reproductive matters (Bwazi, Maluwa, Chimwaza, & Pindani, 2014; Eliason et al., 2013; Sileo et al., 2015).

In this article, we assess the factors influencing use of modern contraception within 24 months of birth among Togolese women participating in the 2013/14 DHS. Although arbitrary, we employ women's use of modern contraception within 24 months of the most recent birth as a proxy for PPFP. This decision is due to the low rates of contraceptive use in Togo and because of the increased contact with the health care

system continues through the first two years of life of the child. As in other studies cited above, we anticipate that certain socio-demographic characteristics and interaction with the health care system will be positively associated with use. We also anticipate that characteristics specific to the Togolese context including co-habitation with husband, breastfeeding duration, and region may be associated as well. These latter three variables were included since many women live apart from their husbands, there are high rates of breastfeeding so duration may play a role in uptake of contraceptive use, and the large variation in regions in Togo related to wealth, education, and access to contraception.

Methods

Study design

This is a cross-sectional descriptive study.

Data source and sample

The data used in this study are from the most recent 2013/14 Togolese DHS. The DHS is a household-based survey with a multistage probability sample design that is generalizable to the national level. The 2013/14 DHS included a "women's questionnaire," the data from which represent Togolese women aged 15-49 years (n = 9480). This study uses a subset of these data based on interviews with a representative sample of women who had a live birth within 24 months prior to the survey and who were not currently pregnant at the time of the interview (n=2749) (referred to as postpartum women). These datasets were obtained from the DHS Program (ICF, N.D.) repository following approval of the study plan and ethical approval for the study was received from the Emory University Institutional Review Board.

Variables of interest

Variables of interest include social and demographic and health service use as well as use of modern contraception within 24 months of birth. Socio-demographic variables include: age (continuous 15-49 years), parity (1-2 children compared to 3 or more), desire to space or limit births (women who want their next birth within two years of survey compared to women who do not want more children or want next child more than two years from time of survey or are uncertain), breastfeeding duration after last birth (reference category 0-6 months compared to 7-12, 13-18, and 19-24 and as a continuous variable), residence (rural or urban), education (reference category no education compared to primary education and secondary education or higher), region (reference category Savanes compared the other five regions), economic status (wealth index score in quintiles, poorest compared to four higher quintiles), marital status (reference category married compared to never in union, living with partner, widowed, divorced, separated), religion (reference category Muslim compared to no religion, traditional/animist, Muslim, Catholic and Protestant), exposure to family planning in the media (did not see/hear about family planning from radio, TV or newspaper compared to did see/hear about it), husband's desire for number of children agrees with respondent's (reference category wants more compared to wants the same or fewer), and cohabitation with husband or partner (yes or no).

Independent variables are the four key health system encounters shown to be associated with use of modern contraception-- antenatal care (no antenatal care visits compared to at least one visit), institutional delivery (last delivery not at a health care facility compared to last delivery at a facility), postnatal care within two months of

delivery (respondent was not examined or counseled by a health professional after last birth compared to respondent was examined or counseled by a health professional), and immunization of youngest child (no vaccination against diphtheria-tetanus-pertussis (DPT) compared to first vaccination received). This study used the youngest child having received first dose of DPT vaccination as a proxy for vaccination. While not reported in these results, further analyses were completed to ensure that this was an appropriate proxy – similar associations were found with children receiving other types of vaccination and with children receiving multiple doses of a vaccination. The dependent variable is women's use of a modern method of contraception at the time of survey (yes or no). In this paper modern contraceptive use is defined as self-reported current use of female sterilization, intrauterine device (IUD), implants, oral contraceptive pills, condoms, periodic abstinence, or withdrawal to prevent pregnancy at the time of the survey.

Sample

To account for the 2013/14 DHS sampling strategy, we used the SPSS complex samples module, which adjusts for the effects of clustering, stratification, and sample weights. The final samples used in the analysis consisted of 2749 women who had given birth up to 24 months prior to the survey.

Analysis

First, we conducted a simple descriptive analysis of and compared the data on women's socio-demographic characteristics, health services use, and modern contraception use by method type. Next, we used an F-transformed Rao-Scott adjusted

chi-square statistic for the bivariate analysis of socio-demographic characteristics and health services use by modern contraception use. Variables with a statistically significant odds-ratio at (P<0.05) for modern contraceptive use were selected for inclusion in subsequent a multivariate logistic regression analysis. We developed three logistic regression models to predict the odds of women using modern contraception. We decided a priori on the way in which to build the three models using a block-wise approach that included known associated variables first and then added in other potentially associated variables.

For model 1, we wanted to see if the association between the four factors relating to health care service use and modern contraception use among postpartum women remained significant adjusting for each of the other three health care service use factors. Model 2 kept the service use variables and included all socio-demographic variables that were significant in the bivariate analysis. Prior to building model 3, we tested for multi-collinearity using variance inflation factor (VIF); for wealth, we found a VIF of 3.935 suggesting collinearity with region and residence. After removing wealth, all the VIFs were under 2. Model 3 was a refinement of model 2 to adjust for collinearity. In model 3 we plotted the receiver operating characteristic (ROC) curve and computed the area under the ROC curve. This value was 0.754. The analyses were conducted using SPSS 24 (IBM Corp, 2013) statistical software.

Results

Women's socio-demographic characteristics, health service engagement, and modern contraceptive use, from the 2013/14 Togo DHS

Table 2.1 shows the socio-demographic characteristics of the postpartum women from the 2013/14 DHS. The majority of the women were between 20-34 years old (71%),

had spaced their previous birth more than two years from the last birth (87%), and had wished to space their next child more than two years from the most recent birth (85%); over half of the women had three or more children (55%). Most had either no formal education or had only completed primary education (76%). Wealth was evenly distributed between the five quintiles. The religious affiliations Animist, Muslim, Catholic, and Protestant accounted for about 20-30% each of women and no religion accounted for about 10% of the women. Over two thirds of the woman were from rural areas, most were married and lived with their husbands, and more than half agreed with their husbands on the number of children they wanted as a couple. About one fifth of the women had been exposed to family planning messages from newspaper, TV, or radio. The most common method of contraception for postpartum women was injectables (7% of women), followed by implants (4%), condoms (3%), periodic abstinence (2%), IUDs (<1%), and withdrawal (<1%). Female sterilization was rarely used. Information on male sterilization was not included in the data.

Table 2.1: Social and demographic characteristics of 2749 women who gave birth within 24 months of the 2013/14 Togo DHS.

Characteristic	Un-weighted N*	Weighted Percent † [a]	Weighted 95% Confidence interval†	
Mean Age (Yr)	28.64		28.34	28.94
Parity				
1-2	1162	45	43	48
≥ 3	1587	55	52	57
Region				
Lomé	508	24	21	27
Maritime	281	16	14	19
Plateaux	499	24	21	28
Centrale	395	10	9	12
Kara	408	12	10	13
Savanes	658	14	12	16
Residence				
Urban	806	37	35	40
Rural	1943	63	61	66
Educational level (some or completed)				
None	1211	39	36	43
Primary	936	36	34	39
Secondary	567	23	21	23
Higher	35	2	1	3
Wealth				
Poorest	813	21	19	24
Poorer	550	19	16	22
Middle	529	21	18	23
Richer	447	20	18	23
Richest	410	19	17	21
Marital Status				
Never in union	113	5	4	6
Married	2041	72	69	74
Living with partner	500	21	18	24
Widowed	38	1	1	1
Divorced	10	0	0	1
Separated	249	2	1	2
Religion				
None	257	9	7	10
Animist or Traditional	583	19	16	23
Muslim	593	19	16	23
Catholic	568	21	19	23
Protestant	747	32	29	35
Living with husband				
Yes	2144	83	81	85
No	393	17	15	19
Desired spacing of next child				
> 2 yrs or no next child	2341	85	83	87
≤ 2 yrs or unsure of timing	396	15	14	17
Exposure to FP messages				
Yes	570	20	18	22
No	2176	81	78	83
Husband's desire for number of children agrees with respondent's				
Yes	1003	63	61	66
No	634	37	34	39
Previous birth interval (last birth)				
≤ 24 mos	245	13	11	15
> 24 mos	1850	87	86	89
Mean breastfeeding duration after last birth (months)	11.11	--	10.85	11.40

[a] Rounded to nearest whole percent.

Less than 20% women were using a modern method of contraception at the time of the survey (Table 2.2). Nearly all women had received some antenatal care (93%) and the majority had received four or more antenatal care visits (55%). The large majority of women also had given birth in a health facility (76%), had received a postnatal checkup within two months of birth (71%), and had had their youngest child receive the first DPT vaccination in the series (85%).

Table 2.2: Health services use of 2749 women who gave birth within 24 months of the 2013/14 Togo DHS.

Characteristic	Un-weighted N *	Weighted Percent † [a]	Weighted 95% Confidence interval†	
Currently using modern contraception				
Yes	497	19	17	21
No	2252	81	79	83
Number of ANC visits				
None	191	7	6	9
1-3	1086	37	35	40
4 or more	1463	55	52	58
Last birth in health facility				
Yes	1958	76	72	78
No	791	25	22	28
Postnatal check < 2 months of birth				
Yes	1974	71	68	73
No	758	29	27	32
Youngest child received first DPT vaccine				
Yes	2283	85	83	87
No	379	15	13	17

[a] Rounded to nearest whole percent.

Factors associated with women's use of modern contraception

In the bivariate analyses women who were more likely to have used modern contraception lived in urban areas, were better educated, wealthier, and were from the dominant religious groups--Protestant, Catholic, Muslim (Table 2.3). Moreover, they had been exposed to family planning messages, desired to space their next birth more than two years from the previous birth, and their husbands agreed with them about number of children. They had breastfed their infants for at least one year. These women also had experienced key interactions with the health services (Table 2.4).

Table 2.3: Socio-demographic characteristics of 2749 women by use of modern contraception at time of the 2013/14 Togo DHS.

Characteristic	Total N	Not using Modern Contraception n (%)[a]	Using Modern Contraception n (%)[a]	*P* value*
Mean Age (Yr)	2749	28.85	28.71	0.952
Parity				0.652
1-2	1162	943 (80)	219(20)	
≥ 3	1587	1309 (81)	278(19)	
Region				
Lomé	**508**	**387(76)**	**121(24)**	**<0.001**
Maritime	**281**	**219(78)**	**62(22)**	
Plateaux	**499**	**408(83)**	**91(18)**	
Centrale	**395**	**306(77)**	**89(23)**	
Kara	**408**	**325(80)**	**83(20)**	
Savanes	**658**	**607(92)**	**51(7)**	
Residence				**0.018**
Urban	**806**	**627(78)**	**179(22)**	
Rural	**1943**	**1625(83)**	**318(17)**	
Educational level (partial or completed)				**<0.001**
None	**1211**	**1067 (87)**	**144(13)**	
Primary	**936**	**750 (80)**	**186(20)**	
Secondary or higher	**602**	**435(72)**	**167(28)**	
Wealth				**<0.001**
Poorest	**813**	**726(89)**	**87(11)**	
Poorer	**550**	**446(82)**	**104(18)**	
Middle	**529**	**425(80)**	**104(20)**	
Richer	**447**	**360(80)**	**87(20)**	
Richest	**410**	**295(72)**	**115(28)**	
Marital Status				0.414
Never in union	113	99(86)	14(14)	
Married	2041	1683(81)	358(19)	
Living with partner	500	388(79)	112(21)	
Widowed	38	37(97)	1(3)	
Divorced	10	7(61)	3(39)	
Separated	249	38(82)	9(18)	
Religion				
None	**257**	**223(85)**	**34(15)**	**0.001**
Animist or Traditional	**583**	**507(87)**	**76(13)**	
Muslim	**593**	**500(83)**	**93(17)**	
Catholic	**568**	**451(78)**	**117(22)**	
Protestant	**747**	**570(77)**	**177(23)**	
Living with husband				
Yes	2144	322(83)	71(17)	0.280
No	393	1745(80)	399(20)	
Desired spacing of next child				**<0.001**
> 2 yrs or no next child	**2341**	**1895 (80)**	**446(20)**	
≤ 2 yrs or unsure of timing	**396**	**350 (88)**	**46(12)**	
Exposure to FP messages				**0.026**
Yes	**570**	**446(77)**	**124(23)**	
No	**2176**	**1803(82)**	**373(18)**	
Husband's # children agrees with wife				**0.028**
Yes	**1003**	**766(76)**	**237(24)**	
No	**634**	**526(81)**	**108(19)**	
Previous birth interval (last birth)				0.087
≤ 24 mos	245	191(76)	54(24)	
> 24 mos	1850	1527(82)	323(18)	
Breastfeeding duration after last birth				**0.018**
0-6 mos	**730**	**676(93)**	**54(7)**	
7-12 mos	**675**	**572(74)**	**103(16)**	
13-18 mos	**652**	**503(76)**	**149(24)**	
19-24 mos	**387**	**281(82)**	**106(18)**	

* Significance is based on the adjusted F and its degrees of freedom.

Table 2.4: Health service use of 2749 women by current use modern contraception at time of the 2013/14 Togo DHS.

Characteristic	Total N	Not using Modern Contraception n (%)	Using Modern Contraception n (%)	*P* value*
Number of ANC visits				**<0.001**
None	**191**	**176 (91)**	**15 (9)**	
1-3	**1086**	**924 (83)**	**162 (17)**	
4 or more	**1463**	**1144 (78)**	**319 (22)**	
Last birth in health facility				**<0.001**
Home or other	**791**	**714 (90)**	**77(10)**	
Facility	**1958**	**1538 (78)**	**420(22)**	
Postnatal check < 2 months of birth				**<0.001**
Yes	**1974**	**1577 (78)**	**397(22)**	
No	**758**	**661 (87)**	**97(13)**	
Youngest child received first DPT vaccine				**<0.001**
Yes	**2283**	**1821 (78)**	**462(22)**	
No	**379**	**355 (94)**	**24(6)**	

*Significance is based on the adjusted F and its degrees of freedom. [a] Rounded to nearest whole percent.

Modeling modern contraceptive use

Table 2.5 displays the odds ratios and 95% confidence intervals related to modern contraception use in the three models, controlling for variables found to be significantly associated with use of modern contraception in the bivariate analyses.

With the exception of antenatal care, in all models the health services engagement variables of last birth in a health facility, postnatal check within two months of the previous birth, and youngest child receiving the first DPT vaccination increased the odds of women using modern contraception in the postpartum period. In the final model 3, women were almost three times as likely to use modern contraception if their youngest child had received the first DPT vaccination compared with those whose youngest child had not (OR 2.71; 95% CI 1.37-5.37); almost twice as likely to use modern contraception if they gave birth in a health facility compared with those who did not (OR 1.78; 95% CI 1.18-2.69); and were one and a half times as likely if they had a postnatal check within two months of the previous birth (OR1.59; 95% CI 1.08-2.36).

In model 3, women residing outside of the Savanes region were three to four times as likely to have used modern compared to their Savanes counterparts. Other factors associated with the use of modern contraception were desire to space next birth (OR 2.13; 95% CI 1.23-3.70) and breastfeeding duration (a continuous variable) after the most recent birth. Every 1-month increase in the number of months of breastfeeding slightly increased odds of using modern contraception (OR 1.11; 95% CI 1.08-1.14).

Table 2.5: Regression analysis: 3 models of women's contraceptive use from the 2013/14 Togo DHS.

Variable/category	**Model 1**		**Model 2**		**Model 3**	
	Odds ratio	95% CI	Odds ratio	95% CI	Odds ratio	95% CI
Antenatal visits during last pregnancy						
None	1.00	.	1.00		1.00	
1-3	0.93	[0.49-1.75]	0.66	[0.29-1.49]	0.62	[0.28-1.38]
4 or more	1.03	[0.55-1.92]	0.54	[0.24-1.24]	0.54	[0.24-1.21]
Last birth in a health facility						
Home or other	1.00		1.00		1.00	
In facility	***2.30**	[1.70-3.09]	***1.78**	[1.16-2.73]	***1.78**	[1.18-2.69]
Postnatal check <2 months						
No	1.00		1.00		1.00	
Yes	**1.48**	[1.12-1.97]	**1.66**	[1.12-2.46]	**1.59**	[1.08-2.36]
Youngest child received 1st DPT vaccine						
No	1.00		1.00		1.00	
Yes	***3.46**	[2.07-5.77]	***2.78**	[1.37-5.61]	***2.71**	[1.37-5.37]
Desire to space next birth						
Wants within 2 years or wants but unsure of timing or undecided			1.00		1.00	
Wants in more than 2 years or does not want more			***2.18**	[1.22-3.88]	***2.13**	[1.23-3.70]
Education						
None			1.00		1.00	
Primary			1.10	[0.74-1.63]	1.09	[0.74-1.62]
Secondary or higher			1.45	[0.91-2.31]	1.55	[0.97-2.47]
Wealth						
Poorest			1.00			
Poorer			1.29	[0.78-2.14]		
Middle			0.90	[0.52-1.56]		
Richer			1.49	[0.70-2.17]		
Richest			**2.78**	[1.12-6.88]		

Religion						
None			1.45	[0.72-2.92]	1.37	[0.69-2.74]
Animist or Traditional			1.32	[0.70-2.49]	1.26	[0.68-2.34]
Muslim			1.00		1.00	
Catholic			1.46	[0.83-2.57]	1.55	[0.90-2.69]
Protestant			**1.69**	[1.01-2.83]	1.65	[0.99-2.76]
Urban /Rural						
Urban			0.60	[0.31-1.17]	0.93	[0.59-1.46]
Rural			1.00		1.00	
Region						
Lomé			**2.52**	[1.13-5.61]	***3.15**	[1.46-6.80]
Maritime			***3.39**	[1.56-7.36]	***3.40**	[1.68-6.90]
Plateaux			***2.84**	[1.34-6.03]	***2.59**	[1.45-5.63]
Centrale			***4.02**	[1.90-8.50]	***4.07**	[1.97-8.44]
Kara			***3.51**	[1.76-6.97]	***3.51**	[1.78-6.93]
Savanes			1.00		1.00	
Exposure to FP messages from any media source (newspaper, TV, radio)						
No			1.00		1.00	
Yes			0.87	[0.60-1.27]	0.88	[0.61-1.27]
Husband desire for number of a children agreement with woman						
Wants more			1.00		1.00	
Wants same or fewer			**1.42†**	[0.99-2.04]	**1.42†**	[0.99-2.03]
Breastfeeding duration after last birth						
Continuous (months)			***1.12**	[1.09-1.15]	***1.11**	[1.08-1.14]
Constant (intercept)						
	***2.74**	**[2.30-3.27]**	***8.10**	**[2.69-24.37]**	***18.95**	**[8.01-44.81]**
	Wald F(5, 315)=14.271; p<0.001		Wald F(25, 288)=6.215; p<0.001			Wald F(21, 292)=7.257; p<0.001

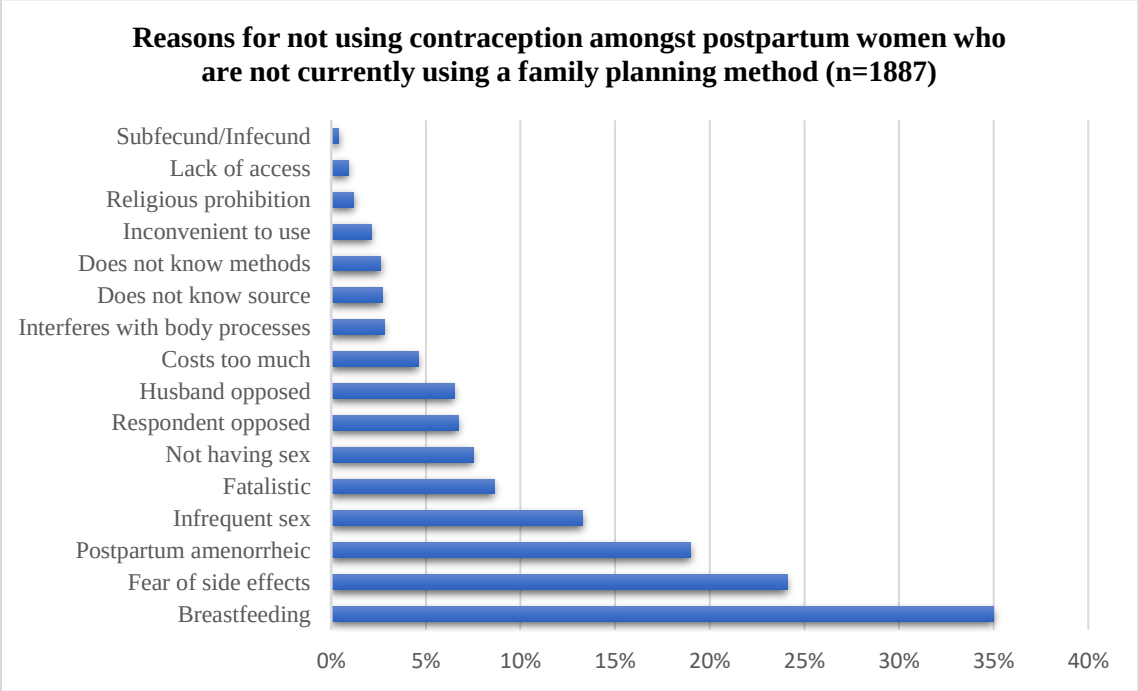
Note. *CI* = confidence interval. Bold indicates significance at the <0.05, *indicates significance at the <0.01 level using Bonferroni significance, † p=0.057.

Reasons for contraception non-use

The large majority of women were not using modern contraception at the time of the 2013/14 DHS. Reasons for non-use are depicted Figure 2.1. The most common reasons were currently breastfeeding (35%), fear of contraceptive side-effects (23%), postpartum amenorrhea (19%) and infrequent sex (13%). Fatalism related to FP, defined in the DHS training manual to mean that the respondent feels that the pregnancy is

predetermined by fate and she has no control over the pregnancy (ICF, 2017, p. 100), was also frequently mentioned reason for non-use. Cost, knowledge or source of methods, and lack of access were less often given as reasons for not using contraception. Opposition to contraception by either the respondent or the respondent's husband was cited by about 7 percent of women.

Figure 2.1: Reasons for not using PPFP



Discussion

This study assessed the factors related to modern contraceptive use within 24 months of giving birth among 2749 Togolese women who participated in the 2013/14 DHS. Key findings are that only about 19 percent of postpartum women were using modern contraception at the time of the survey, a figure that is consistent with that reported by others (Track20, 2016). Modern contraceptive use by the women was significantly associated having given birth in a health facility, having a had a postnatal

check within two months of birth, the youngest child having received the first DPT vaccine, wanting to space children more than two years from last birth or not have more children, husband's desire for number of children agreeing with the woman's, increasing breastfeeding duration, and living outside of the Savanes region. Factors that were not significantly associated with modern contraceptive use included age, parity, previous birth interval, living with husband, educational level, religion, residence, exposure to family planning messages, and antenatal visits during the most recent pregnancy. The most commonly cited reasons for women who were not using PPFP were physiologic. Less common reasons included access and knowledge. Opposition to a method and religious prohibition were rarely cited.

Health services and modern contraception use

The positive association between modern contraceptive use and health facility birth shown in this study has also been reported by others in sub-Saharan Africa (Hounton et al., 2015; Rutaremwa et al., 2015), Pakistan (Cleland et al., 2015, Saeed et al., 2008) and Lebanon (Sayegh and Mosley, 1976). The association is thought to be related to contraceptive counseling of women prior to discharge from the hospital (Cleland, Shah, & Daniele, 2015; Saeed et al., 2008; Sayegh & Mosley, 1976). Similarly, the positive association between modern contraceptive use and postnatal visits within two months of birth have been noted by others. For example, Rutaremwa et al. (2015) found a similar association in Uganda between PPFP and postnatal visits, with women who had postnatal checkups one day after delivery being more likely to use PPFP. The association between increased use of modern contraception by postpartum women and immunization has also been noted by others. Reasons for this association are potentially related to the

fact that women who seek other maternal or child health services are more likely to have the opportunity to get PPFP due to increased exposure to health information and increased contact with the health system thus giving them more chances to receive these services (Cooper et al., 2015; FHI 360, 2012; Hounton et al., 2015).

Recent health policies and programs in Togo may have contributed to the positive associations between modern contraceptive use and engagement with three of the four health services. Togo has seen great improvement in maternal and child health statistics. Seventy-five percent of births took place in a health facility in the three years preceding the 2013/14 DHS, an increase from 49% in the 1998 DHS survey and there was a large increase in vaccination rates (Anipah et al., 1999; Ministère de la Planification du Développement et de l'Aménagement du Territoire (MPDAT) et al., 2015). For example, between the two surveys the number of children receiving all eight basic vaccinations in the first year increased by 30%, first DPT vaccine coverage increased from 69% to 91%, measles vaccine coverage increased from 33% to 66%, and the number of children who received no vaccination decreased from 17% to 6% (Measure DHS, 1998; Ministère de la Planification du Développement et de l'Aménagement du Territoire (MPDAT) et al., 2015). In addition, the GDP per capita increased from $378 in 2005 to $643 in 2014 and the per capita health expenditure increased from $13 in 1995 to $34 in 2005 (United Nations Statistics Division, 2016; World Health Organization, 2015).

A number of programs likely contributed to the positive association between maternal health services and uptake of family planning. Between 1998 and 2014, the government of Togo changed many policies and launched numerous programs aimed to improve the reproductive and sexual health of the population. These included enacting

the 2004 National Political Program for Reproductive Health (Republique Togolaise & United Nations, 2008), passing the 2007 Reproductive Health Law (L'Assemblee nationale Togolaise, 2007), adopting the 2008 National Strategy for Reproductive Health (McDavid & Kodjo, 2012), opening additional schools of midwifery and medicine in Kara and increasing the number of national placement tests conducted each for health care workers to secure employment in the public sector in 2009 (Ministère de la santé et de la protection sociale, 2017), launching the African Union's Campaign on accelerated reduction of maternal, newborn and child mortality in Africa in 2010 (CARMMA) (CARMMA, 2015; Centre d'Information des Nations Unies Lomé, 2010; McDavid & Kodjo, 2012), developing a national volunteer program which includes recruiting unemployed health care workers and paying them a living stipend to work in government health facilities in 2011(Volontaires ONU, 2011), and creating a National Health Insurance program in 2012 (Institut National d'Assurance Maladie, N.D.). These activities aimed to increase institutional delivery and availability of emergency obstetric care as well as to ensure the rights of all people to access quality family planning services through greater funding, more health care workers, supportive policies, and increased mass media campaigns to educate the population on healthy practices related sexuality and reproduction.

Partnerships between the Togolese government and international and donor agencies have also contributed to the increased access to sexual and reproductive health services. In 2011, the African Development bank funded the building of 22 health facilities (Republique Togolaise, 2011), in 2013 Engenderhealth launched AgirPF, a five year project funded by USAID to expand women's access to and use of family planning

services in Lomé, Sokodé, and Kara (Agir pour la Planification Familiale (AgirPF), N.D.), and in 2014, Togo participated in a training and support program developed by the NGO Jhpiego, which trained antenatal, maternity, and postnatal care providers in PPFP counseling for all contraceptive methods and IUD insertion in the postpartum period (Pleah et al., 2016). In addition, ongoing partnerships between the Togolese government and the United States Peace Corps focuses the work of volunteers on maternal and newborn health (Peace Corps, N.D.) and partnerships with the United Nations Fund for Population Activities (UNFPA) provides funds for most contraceptive supplies in Togo (Ministere aupres de la Presidence de la Republique Charge de la Planification du Developpement et de l'Amenagement du Territoire & UNFPA, 2012).

In addition to the above reproductive health services, the vaccination expansion program funded by the Gavi Vaccine Alliance since 2002 supported health system strengthening, immunization services, injection safety devices, as well as vaccine supplies; the Gavi programs have enabled Togo to offer vaccinations free of charge to children under one year and to pregnant women in government facilities (Gavi: The Vaccine Alliance, N.D.). In the 1990s, researchers in Togo conducted one of the very first studies of the integration of family planning into immunization services (Huntington & Aplogan, 1994). Huntington and Aplogan (1994) found that adding short messages to mothers on the benefits of family planning and availability of on-site services to the vaccination protocol increased same day uptake of contraception. The study found that the mean number of monthly family planning acceptors increased from 56 to 140 clients during the intervention.

Overall, donor support, governmental and non-governmental commitments and efforts have enabled more individuals to come to the health facilities, be exposed to health education, and increased the potential time to receive family planning services.

Additionally, the first author conducted a qualitative study on integrated family planning in Togo and found that most health facilities offered health information sessions to individuals while waiting at the facility for health services. Various topics included family planning and the importance of going to trained health care providers for health care (Baker, 2017). This increased contact and information with the health system may be contributing to the increased use of modern contraception for women who have institutional delivery, postpartum care, and whose children receive vaccinations.

The lack of a positive association between antenatal care visits and modern contraception use has also been noted by other researchers in sub-Saharan Africa and may be due to the fact that women are not focused on or able to act on the information about family planning while they are pregnant (Hounton et al., 2015). The authors of a systematic review of interventions to increase PPFP found mixed results for antenatal care (Cleland et al., 2015). In the review, several studies found that high-intensity antenatal counseling about family planning were necessary to improve contraceptive uptake after birth (Adanikin et al., 2013; Omu et al., 1989), while single, short counseling sessions appear to have no effect (Akman, Tüzün, Uzuner, Başgul, & Kavak, 2010; Smith, Van Der Spuy, Cheng, Elton, & Glasier, 2002).

Socio-demographic factors and increased modern contraceptive use

That agreement between husband and wife in the desired number of children is associated with increased use of PPFP suggests the importance of men's role in

reproductive decision-making and of encouraging discussion of reproductive plans between male and female partners. Authors of studies in Ghana, Malawi, and Uganda found that the approval of or discussion with a male partner related to family planning was significantly associated with use of PPFP (Bwazi et al., 2014; Eliason et al., 2013; Sileo et al., 2015). A qualitative study conducted in Togo found that healthcare workers frequently discussed the challenges of husband disagreement with his wife using PPFP as a barrier to PPFP use (Baker, 2017).

Socio-demographic factors that were not found to be associated with modern contraceptive use

A number of socio-demographic factors included in this analysis were not significantly associated with modern contraceptive use, and these findings may appear counter-intuitive. These factors included age, parity, previous birth interval, living with husband, educational level, wealth, religion, residing in the Savanes region, urban versus rural location, and exposure to family planning messages from any media source. We discuss some of these, below, individually.

The lack of association between age and parity and PPFP has also been found in other DHS analyses (Akinlo, Bisiriyu, & Esimai, 2014; Hounton et al., 2015; Winfrey & Rakesh, 2014), and the reasons behind this lack of association are unclear. It could be due to factors such as the generally low rates of modern contraceptive use for all women or the high desire for children at all ages except for very young women (<18 years). Other possible explanations include the fact that high parity women likely have not used contraception and therefore they will be less likely to use contraception in the future

(Hounton et al., 2015); previous use of contraception and PPFP have been found to be associated (Eliason et al., 2013) which supports this hypothesis.

The fact that women from the Savanes region were less likely to use modern contraception compared with their counterparts in the postpartum period is important to note. The Savanes region is the most northern region of Togo, about an 8-12-hour drive from the capital Lomé. Its population is poorer (64% in the lowest wealth quintile). Savanes women are less educated (76% are illiterate), have less exposure to mass media (70% have no access to radio, TV, or newspaper), have a higher total fertility (six children per woman), and higher unmet need for family planning (39%) compared with women in the other regions (Ministère de la Planification du Développement et de l'Aménagement du Territoire (MPDAT) et al., 2015). These women also have more difficulty accessing health care related to distance (46%) and inadequate funds (68%) than women in other regions (Ministère de la Planification du Développement et de l'Aménagement du Territoire (MPDAT) et al., 2015). The closest planned parenthood affiliate clinic (ATBEF) is in Kara, a four-hour drive (Association Togolaise pour le Bien Etre Familial, 2017). The Savanes region is often excluded from participation in international aid projects potentially due to the distance from the capital and because of limited international aid coming into the country until recently.

The lack of a significant association between both wealth and education with use of modern contraception in Togo seems counterintuitive, since richer more educated women are thought to have greater knowledge and access to services. The lack of associations or only modest associations with respect to wealth have also been found in other West African countries – mostly countries surrounding or near Togo – Benin,

Burkina Faso, Ghana, and Sierra Leone (Winfrey & Rakesh, 2014). This is possibly due to the low levels of family planning generally, combined with the small absolute differences in wealth. The lack of association of modern contraception use and educational level could also be explained similarly, since the overall level of education in Togo is extremely low for women. About 70 percent of the women in this sample had a primary school education or less, and in Togo sexual health education is included in middle school and higher; only about two percent of women surveyed had an education higher than secondary.

The lack of a significant relationship between exposure to family planning messages through media and PPFP is unexpected and contrary to findings from Uganda, Kenya, and Nigeria (Akinlo et al., 2014; Do & Hotchkiss, 2013; Rutaremwa et al., 2015). This could be showing that simply telling women to use family planning is not adequate for them to decide to use it. It could also be related to the low number of women reporting that they had heard about family planning through the media in Togo – only about 20% of women in Togo reported this exposure to family planning messages compared to 74% in Uganda, 72% in Kenya, and 42% in Nigeria.

Understanding the reasons women chose not to use PPFP is important for policy and programming, especially in view of the continued low contraceptive prevalence rate overall, and the fact that less than 20% of women in this study used PPFP. The most frequently mentioned factors for non-use of modern contraception by postpartum women included physiologic reasons (breastfeeding, amenorrhea) which are not always protective against pregnancy, but no more than 40 percent of women cited one reason, and most of the reasons were reported by between 0-20 percent of women. The fear of

side effects was a more frequently cited reason for PPFP non-use, which also was mentioned in a study in 2015 in Nigeria and in 2016 in Rwanda (Dulli, Eichleay, Rademacher, Sortijas, & Nsengiyumva, 2016; Idowu, Ogunsola, & Ogunlaja, 2015). Family planning access was infrequently cited as a cause for non-use. This suggests that, for the most part women, with the exception of women in the Savanes region, feel they are able to access these services if they desire to. Fatalism was noted as a reason for contraceptive non-use by only10 percent of women. These response levels suggest possible limitations of the survey method and the ability to elicit adequate responses to questions about potentially sensitive matters such as contraceptive non-use (see limitations, below). In Togo, having children is an important part of life, and women who chose not to have or cannot bear children often feel ostracized from the community due to their infertility.

Limitations

There are advantages and disadvantages to conducting secondary analysis using data such as the DHS. Advantages include the accessibility to large data sets without spending the time or resources to collect this high-quality level of data. In addition, the DHS is considered a representative sample of the population if using the entire data set. An important disadvantage when secondary analysis of DHS data includes the reliance on existing variables that may not specifically correspond to the research question. The main limitations in this study include that we used a sub-sample of the total number of DHS respondents—women who gave birth in the previous 24 months. The sub-sample thus includes women who were not, in fact, postpartum at the time of the DHS from a biomedical perspective (Romano, Cacciatore, Giordano, & La Rosa, 2010). This was

done given the low contraceptive prevalence rate overall and the desire to have an adequate sub-sample size. Including only women who had given birth up to six months prior to the survey would have reduced the sample size to 774 women, of which only 59 women used a modern method of contraception (7.6% of surveyed women). The other limitation in this study was potential response bias, as mentioned above.

This is a descriptive study which used existing data and therefore possible reasons behind the findings cannot be fully understood. Due to the large number of categorical independent variables, there is a risk of not having an adequate number of observations in each cell, which increases the chance of type II error, meaning that a relationship may exist but the sample size was not adequate to show one. The low rates of modern contraceptive use in Togo from the study sample may have limited disaggregation in factors such as education, marital status, and exposure to family planning messages which had few people highly education, not married, or who were exposed to family planning messages. In addition, women may have started using a modern contraceptive method following the birth of her last child but had stopped using it at the time of the survey and therefore she was not included as a modern contraceptive user. There was also a lack of information about if a woman's reason for contraceptive non-use was related to the fact that she was actively trying to become pregnant, because the question was not included in the 2013/14 Togo DHS.

Recommendations for policy and programming

Low rates of PPFP combined with the high use of key maternal and child health services and the strong associations between PPFP use and use of key maternal and child health services makes a compelling case for integrating family planning into such

services. At present, the integration of family planning into reproductive and child health services in Togo is increasing through governmental and non-governmental policy, programming, and training (Agir pour la Planification Familiale, 2014; Akpadza, 2016; Baker, 2017; Deglo, 2016; Evidence to Action, USAID, & Agir pour la Planification Familiale (AgirPF), 2016; Fikree, Murgore, & Forrester, 2014; Huntington & Aplogan, 1994; McDavid & Kodjo, 2012; Ministere de la sante Republique Togolaise, 2015; Mugore, Kassouta, Sebikali, Lundstrom, & Saad, 2016; Ntapi, N.D.; Pleah et al., 2016; Republique du Togo, CEDEAO/ECOWAS, USAID, & EngenderHealth, 2016; Togolaise, 2015), although it is not provided in a standard way in all health facilities. Atun et al. (2010) developed the *Integration of targeted health interventions into health systems conceptual framework* to assist with the analysis and mapping of the nature and extent of health program integration in a variety of settings (Atun, de Jongh, Secci, Ohiri, & O, 2010). This model highlights the interactions of the health system characteristics, the intervention, the adoption system of the intervention, the health problem facing the population, and the broader context surrounding these factors. For example, a better understanding of cultural context, health system and adoption system characteristics, and intervention(s) that contribute most the integration of family planning into other maternal and child health services would be invaluable to policy and programming. These could include health care system interventions such as health care worker training to provide integrated family planning or cultural context interventions such as educating the population on contraception through mass media and through local health educators to reduce misconceptions and rumors and increase understanding of the health benefits of contraceptive use.

Not providing contraception as part of other health services is a missed opportunity (Cleland et al., 2015; Speizer et al., 2013) and therefore programming should focus on further integration of these services, with particular attention on the part of the Government of Togo and donors to investments in the Savanes region, which has experienced extremely low rates of contraceptive prevalence in addition to high rates of poverty, low educational levels, and limited access to mass media compared with other regions of the country. The fact that the immunization and facility birth rates have increased between 1998 and 2013/14 shows the power of policy and program implementation. In 2017, Togo was the first country to eliminate lymphatic filariasis in Africa (World health Organization, 2017) and in 2011 was declared free of Guinea worm (The Carter Center, 2017). This demonstrates the potential of the Togolese health system, with the necessary support, to improve the health status of the population. It is now time to harness this potential and build a stronger health system, one that can provide integrated family planning services.

Recommendations for future research

Increasing PPFP use in Togo has the potential to reduce maternal and infant morbidity and mortality. Future research on PPFP in Togo should use qualitative methods to characterize the facilitators and barriers to PPFP because these are difficult to illuminate through standardized surveys such as the DHS. Moreover, research should examine the preference, acceptability, and accessibility of different types of contraceptive methods, especially in relation to breastfeeding and current cultural practices. Other areas of research include comparing the impact on contraceptive access and use of providers who are trained to operate in contexts of integrated family planning services with those

who are not and investigating if specific programming and policies related to integrating family planning into reproductive and immunization services increase uptake of PPFP. Further, research should evaluate the efficacy of contextualized methods of behavior change communication to increase use of modern contraceptive methods and understanding. This education might include information to reduce fears of side effects and emphasize the health and economic benefits of increased birth spacing. Further, it should encourage the support of husbands and family members in contraceptive decisions. As Togo had low reported rates of exposure to mass media about family planning, this is a particularly pressing issue. In addition, analysis of future Togo DHS studies related to postpartum modern contraception use can further illuminate how policies and programs influenced contraceptive use over time.

Conclusions

This study highlights the potential for integrated health services in Togo. Low rates of PPFP use combined with the high rates of key maternal and child health services, which have increased greatly over the last two decades, and the strong associations between PPFP use and these services makes a strong case for the integration of family planning into other health services, particularly during immunization, intrapartum and postpartum care. Future research should investigate in further detail the reasons for use and non-use of PPFP and types of interventions that are most successful at increasing its use. This research and programming has the potential to save the lives and improve the health of Togolese women.

References

Adanikin, A. I., Onwudiegwu, U., & Loto, O. M. (2013). Influence of multiple antenatal counselling sessions on modern contraceptive uptake in Nigeria. *The European Journal of Contraception & Reproductive Health Care, 18*(5), 381-387.

Agir pour la Planification Familiale. (2014). *Evaluation de base des services de planification familiale, des connaissances, attitudes et practiques en matiere de PF dans les zones urbaines et periurbaines du Togo Resultats de l'enquete de base*. PowerPoint presentation. EngenderHealth. Lomé.

Agir pour la Planification Familiale (AgirPF). (N.D.). *AgirPF-Togo support to MOH to build capacity for providing FP*. Action plan EngenderHealth. Lomé.

Akinlo, A., Bisiriyu, A., & Esimai, O. (2014). Use of maternal health care as a predictor of postpartum contraception in Nigeria. *African Population Studies, 27*(2), 288-300.

Akman, M., Tüzün, S., Uzuner, A., Başgul, A., & Kavak, Z. (2010). The influence of prenatal counselling on postpartum contraceptive choice. *Journal of International Medical Research, 38*(4), 1243-1249.

Akpadza, K. (2016). *Rapport de l'atelier de formation en soins apres avortement de 14 prestataires de soins dans les formations sanitiaires appuyees par le projet AgirPF-Togo*. Université de Lomé. Lomé.

Anipah, K., Mboup, G., Ouro-Gnao, A., Boukpessi, B., Messan, P., & Salami-Odjo, R. (1999). *Enquête démographique et de santé au Togo – 1998*. Retrieved from Calverton, Maryland: http://dhsprogram.com/pubs/pdf/FR101/FR101.pdf

Association Togolaise pour le Bien Etre Familial. (2017). ATBEF: Qui sommes-nous? Retrieved from http://atbeftogo.org/atbef/page/qui-sommes-nous--1.html

Atun, R., de Jongh, T., Secci, F., Ohiri, K., & O, A. (2010). Integration of targeted health interventions into health systems: a conceptual framework for analysis. *Health Policy Plan, 25*. doi:10.1093/heapol/czp055

Baker, H. (2017). *Facilitators, barriers, and demand generation related to family planning integrated into postpartum and postabortion care in Togo*. Paper presented at the Psychosocial Workshop, Chicago, IL.

Bwazi, C., Maluwa, A., Chimwaza, A., & Pindani, M. (2014). Utilization of Postpartum Family Planning Services between Six and Twelve Months of Delivery at Ntchisi District Hospital, Malawi. *Health, 2014*.

CARMMA. (2015). Financing of maternal, newborn, and child health interventions. Retrieved from http://carmma.org/update/financing-maternal-newborn-and-child-health-interventions

Centre d'Information des Nations Unies Lomé. (2010). Le President Faure Gnassingbe lance officiellement la CARMMA au Togo. Retrieved from http://Lomé.sites.unicnetwork.org/2010/09/14/le-president-faure-gnassingbe-lance-officiellement-la-carmma-au-togo/

Cleland, J., Bernstein, S., Ezeh, A., Faundes, A., Glasier, A., & Innis, J. (2006). Family planning: the unfinished agenda. *Lancet, 368*, 1810-1827.

Cleland, J., Shah, I. H., & Daniele, M. (2015). Interventions to Improve Postpartum Family Planning in Low- and Middle-Income Countries: Program Implications and Research Priorities. *Stud Fam Plann, 46*(4), 423-441. doi:10.1111/j.1728-4465.2015.00041.x

Conde-Agudelo, A., Rosas-Bermudez, A., Castano, F., & Norton, M. (2012). Effects of birth spacing on maternal, perinatal, infant, and child health: asystematic review of causal mechansims. *Studies in Family Planning, 43*, 93.

Conde-Agudelo, A., Rosas-Bermudez, A., & Kafury-Goeta, A. C. (2006). Birth spacing and risk of adverse perinatal outcomes: a meta-analysis. *Jama, 295*(15), 1809-1823. doi:10.1001/jama.295.15.1809

Conde-Agudelo, A., Rosas-Bermudez, A., & Kafury-Goeta, A. C. (2007). Effects of birth spacing on maternal health: a systematic review. *Am J Obstet Gynecol, 196*(4), 297-308. doi:10.1016/j.ajog.2006.05.055

Cooper, C. M., Fields, R., Mazzeo, C. I., Taylor, N., Pfitzer, A., Momolu, M., & Jabbeh-Howe, C. (2015). Successful proof of concept of family planning and immunization integration in Liberia. *Glob Health Sci Pract, 3*(1), 71-84. doi:10.9745/GHSP-D-14-00156

DaVanzo, J., Hale, L., Razzaque, A., & Rahmand, M. (2007). Effects of interpregnancy interval and outcome of the preceeding pregnancy on pregnancy outcomes in Matlab, Bangladesh. *BJOG : an international journal of obstetrics and gynaecology, 114*, 1079-1087.

Deglo, A. M. T. (2016). *Rapport de l'atelier de formation des prestatiares des zones d'intervention d'AgirPF en counseling PFPP/DIU PP*. Final report. AgirPF. Lomé.

Do, M., & Hotchkiss, D. (2013). Relationships between antenatal and postnatal care and post-partum modern contraceptive use: evidence from population surveys in Kenya and Zambia. *BMC Health Serv Res, 13*, 6. doi:10.1186/1472-6963-13-6

Dulli, L. S., Eichleay, M., Rademacher, K., Sortijas, S., & Nsengiyumva, T. (2016). Meeting Postpartum Women's Family Planning Needs Through Integrated Family Planning and Immunization Services: Results of a Cluster-Randomized Controlled Trial in Rwanda. *Glob Health Sci Pract, 4*(1), 73-86. doi:10.9745/ghsp-d-15-00291

Eliason, S., Baiden, F., Quansah-Asare, G., Graham-Hayfron, Y., Bonsu, D., Phillips, J., & Awusabo-Asare, K. (2013). Factors influencing the intention of women in rural Ghana to adopt postpartum family planning. *Reprod Health, 10*, 34. doi:10.1186/1742-4755-10-34

Evidence to Action, USAID, & Agir pour la Planification Familiale (AgirPF). (2016). *Atelier de formation sur les soins après avortement adaptes aux adolescentes et aux jeunes femmes au Togo*. Conceptual Note. Evidence to Action. Dakar.

Family Planning 2020. (2014). *Factsheet New Commitments to FP2020*. Retrieved from New York: http://ec2-54-210-230-186.compute-1.amazonaws.com/wp-content/uploads/2015/01/20141126_New_Commitments_SinglePg_8.5X111.pdf

FHI 360. (2012). *Postpartum family planning: New research findings and program implications*. Retrieved from Research Triangle Park, NC:

Fikree, F., Murgore, S., & Forrester, H. (2014). *Strengthening Postabortion family planning in Togo, Mobilizing Resources*. Retrieved from Washington D.C.:

Gavi: The Vaccine Alliance. (N.D.). *Togo*. Retrieved from Geneva: http://www.gavi.org/country/togo/

Gebreselassie, T., Rutstein, S. O., & Mishra, V. (2008). Contraceptive use breastfeeding amenorrhea and abstinence during the postpartum period: an analysis of four countries.

Hounton, S., Winfrey, W., Barros, A. J., & Askew, I. (2015). Patterns and trends of postpartum family planning in Ethiopia, Malawi, and Nigeria: evidence of missed opportunities for integration. *Glob Health Action, 8,* 29738. doi:10.3402/gha.v8.29738

Huntington, D., & Aplogan, A. (1994). The integration of family planning and childhood immunization services in Togo. *Studies in Family Planning*, 176-183.

IBM Corp. (2013). IBM SPSS Statistics for Windows, Version 22.0 Released 2013. Armonk, New York: IBM Corp.

ICF. (2017). *Demographic and Health Survey Interviewer's Manual.* Retrieved from Rockville, Maryland: http://dhsprogram.com/pubs/pdf/DHSM1/DHS7-Interviewer's-Manual-EN-26Apr2017-DHSM1.pdf

ICF. (N.D.). The DHS Program: Demographic and Health Surveys. Retrieved from dhsprogram.com

Idowu, A., Ogunsola, O. O., & Ogunlaja, O. (2015). Knowledge, determinants and unmet needs for postpartum family planning use among women attending immunization clinic at Bowen University Teaching Hospital, Ogbomoso, Oyo State, Nigeria. *Afr J Med Med Sci*, *44*(1), 43-51.

Institut National d'Assurance Maladie. (N.D.). Connaitre l'assurance maladie. Retrieved from http://www.inam.tg/index.php/connaitre-l-assurance-maladie

L'Assemblee nationale Togolaise. (2007). *10 janvier 2007 sur la sante de la reproduction*. Retrieved from Lome: http://www.legitogo.gouv.tg/annee_txt/2007/Pages%20from%20jo_2007-002-7.pdf

McDavid, E., & Kodjo, A. (2012). *Repositioning Family Planning in Togo: A Baseline.* Retrieved from Washington D.C.: www.healthpolicyproject.com

Measure DHS. (1998). *Togo Standard DHS 1998*. Retrieved from http://www.measuredhs.com/what-we-do/survey/survey-display-114.cfm

Ministère aupres de la Presidence de la Republique Charge de la Planification du Developpement et de l'Amenagement du Territoire, & UNFPA. (2012). *Evaluation Finale 5eme Programme Togo-UNFPA 2008-2013 Rapport Final*. Retrieved from Lomé: http://web2.unfpa.org/public/about/oversight/evaluations/docDownload.unfpa?docId=116

Ministère de la Planification du Développement et de l'Aménagement du Territoire (MPDAT), Ministère de la Santé, & ICF International. (2015). *Enquête Démographique et de Santé au Togo 2013-2014.* Retrieved from Rockville, Maryland, USA: http://dhsprogram.com/pubs/pdf/FR301/FR301.pdf

Ministère de la santé et de la protection sociale. (2017). Lutte contre la mortalité maternelle, Néonatale et Infantile. Retrieved from http://sante.gouv.tg/fr/content/presentation-et-chiffres-cles-2

Ministere de la sante Republique Togolaise. (2015). *Guide de Mise en Œuvre des Maternités SONUB au Togo*. Lomé: Ministere de la sante Republique Togolaise.

Mugore, S., Kassouta, N. T., Sebikali, B., Lundstrom, L., & Saad, A. (2016). Improving the Quality of Postabortion Care Services in Togo Increased Uptake of Contraception. *Glob Health Sci Pract, 4*(3), 495-505. doi:10.9745/ghsp-d-16-00212

Ntapi, K. (N.D.). *Renforcement sur la mise en œuvre effective de la Planification Familiale lors des Soins Après Avortement (SAA) au Togo*. Ministère de la santé. Lomé.

Omu, A. E., Weir, S. S., Janowitz, B., Covington, D. L., Lamptey, P. R., & Burton, N. N. (1989). The effect of counseling on sterilization acceptance by high-parity women in Nigeria. *International Family Planning Perspectives*, 66-71.

Peace Corps. (N.D.). Projects in Togo. Retrieved from https://www.peacecorps.gov/togo/projects/

Pleah, T., Hyjazi, Y., Austin, S., Diallo, A., Dao, B., Waxman, R., & Karna, P. (2016). Increasing Use of Postpartum Family Planning and the Postpartum IUD: Early Experiences in West and Central Africa. *Glob Health Sci Pract, 4 Suppl 2*, S140-152. doi:10.9745/ghsp-d-16-00039

Prata, N., Passano, P., Rowen, T., Bell, S., Walsh, J., & Potts, M. (2011). Where there are (few) skilled birth attendants. *J Health Popul Nutr, 29*(2), 81-91.

Republique du Togo, CEDEAO/ECOWAS, USAID, & EngenderHealth. (2016). Plan d'Action de plaidoyer pour un environnement politique propice à la planification familiale au Togo. In Republique du Togo, CEDEAO/ECOWAS, USAID, & E. T. A. Project (Eds.). Lomé.

Republique Togolaise. (2011). Lancement du projet "Bid Sante". *Republique Togolaise*. Retrieved from http://www.republicoftogo.com/Toutes-les-rubriques/Politique/Lancement-du-projet-BID-Sante

Republique Togolaise, & United Nations. (2008). *Suivi des objectifs du millenaire pour le developpement au Togo*. Retrieved from Lomé, Togo: http://www.undp.org/content/undp/en/home/librarypage/mdg/mdg-reports/africa-collection.html

Romano, M., Cacciatore, A., Giordano, R., & La Rosa, B. (2010). Postpartum period: three distinct but continuous phases. *J Prenat Med, 4*(2), 22-25.

Rossier, C., Bradley, S. E. K., Ross, J., & Winfrey, W. (2015). Reassessing Unmet Need for Family Planning in the Postpartum Period. *Studies in Family Planning, 46*(4), 355-367. doi:10.1111/j.1728-4465.2015.00037.x

Rutaremwa, G., Kabagenyi, A., Wandera, S. O., Jhamba, T., Akiror, E., & Nviiri, H. L. (2015). Predictors of modern contraceptive use during the postpartum period among women in Uganda: a population-based cross sectional study. *BMC public health, 15*, 262. doi:10.1186/s12889-015-1611-y

Saeed, G. A., Fakhar, S., Rahim, F., & Tabassum, S. (2008). Change in trend of contraceptive uptake—effect of educational leaflets and counseling. *Contraception, 77*(5), 377-381.

Sayegh, J., & Mosley, W. H. (1976). The effectiveness of family planning education on acceptance of contraception by postpartum mothers. *The Johns Hopkins Medical Journal, 139*, 31-37.

Sileo, K. M., Wanyenze, R. K., Lule, H., & Kiene, S. M. (2015). Determinants of family planning service uptake and use of contraceptives among postpartum women in rural Uganda. *International Journal of Public Health, 60*(8), 987-997. doi:10.1007/s00038-015-0683-x

Smith, K., Van Der Spuy, Z. M., Cheng, L., Elton, R., & Glasier, A. (2002). Is postpartum contraceptive advice given antenatally of value?. *Contraception, 65*(3), 237-243.

Speizer, I. S., Fotso, J. C., Okigbo, C., Faye, C. M., & Seck, C. (2013). Influence of integrated services on postpartum family planning use: a cross-sectional survey from urban Senegal. *BMC public health, 13*, 752. doi:10.1186/1471-2458-13-752

The Carter Center. (2017). Togo. Retrieved from https://www.cartercenter.org/countries/togo.html

Togolaise, M. d. l. s. e. d. l. p. s. R. (2015). *Plan strategique national des interventions a base communautaire 2016-2020 du Togo*. Lomé: Ministere de la sante et de la protection sociale Republique Togolaise.

Track20. (2016). Togo FP2020 Core Indicator Summary Sheet: 2016. Retrieved from http://track20.org/download/pdf/2016%20FP2020%20CI%20Handouts/english/Togo%202016%20FP2020%20CoreIndicators.pdf

United Nations Statistics Division. (2016). Togo. *Work Statistics Pocketbook.*

United States Agency for International Development (USAID), Australia AID, World Health Organization, UNFPA, Bill and Melinda Gates Foundation, UKaid, . . . Save the Children. (2013). *Statement for Collective Action for Postpartum Family Planning*. Retrieved from

http://www.who.int/reproductivehealth/topics/family_planning/Statement_Collective_Action.pdf

Vernon, R. (2009). Meeting the family planning needs of postpartum women. *Stud Fam Plann, 40*(3), 235-245.

Volontaires ONU. (2011). Lancement officiel du Programme de Volontariat National au Togo. Retrieved from https://www.unv.org/fr/news/lancement-officiel-du-programme-de-volontariat-national-au-togo

Warren, C., Mwangi, A., Oweya, E., Kamunya, R., & Koskei, N. (2010). Safeguarding maternal and newborn health: improving the quality of postnatal care in Kenya. *Int J Qual Health Care, 22*(1), 24-30. doi:10.1093/intqhc/mzp050

Winfrey, W., & Rakesh, K. (2014). *Use of family planning in the postpartum period*. Retrieved from Rockville, Maryland, USA: http://dhsprogram.com/pubs/pdf/CR36/CR36.pdf

World Health Organization. (2015). *Togo: WHO statistical profile*. Retrieved from Geneva: http://www.who.int/gho/countries/tgo.pdf?ua=1

World health Organization. (2017, April 8, 2017). Togo: first country in sub-Saharan Africa to eliminate lymphatic filariasis. Retrieved from http://www.who.int/neglected_diseases/news/Togo_saying_goodbye_lymphatic_filariasis/en/

Chapter 3: '*It is a question of determination'*: a case study of monitoring and evaluation of integrated family planning services in Togo

Abstract

Integrating family planning into postabortion and postpartum services will increase contraceptive use and decrease maternal and child death, however little information exists on the monitoring and evaluation of such programs. This article draws on research completed by the EngenderHealth's *AgirPF* project in three urban areas of Togo on the extent to which monitoring and evaluation systems of health services operating within *AgirPF* project area in Togo captured integrated family planning services. The current mixed methods case study used 41 key informant interviews with health faculty, individuals working at reproductive health organizations, individuals involved in reproductive health politics, health care workers, and health facility directors; 25 health facility assessments in hospitals, large community clinics, a dispensary, and private clinics; a health service record review; and participant observation. The study found the reporting system for health care was labor intensive and involved multiple steps for health care workers. The system lacked a standardized method to record family planning services as part of other health care at the patient level, yet the Ministry of Health required family planning services to be reported on district and partner organization reporting forms. Key informants suggested improving the system by using computer-based monitoring, streamlining the reporting process to include all necessary information at the patient level, and standardizing what information is needed for the Ministry of Health and partner organizations. Future research should focus on assessing the best methods for recording integrated health services, task shifting of reporting, and cost-effectiveness studies on providing integrated family planning. Recommendations for

future policy and programming include consolidating reproductive data for health indicators, ensuring type of information needed is captured at all levels, and reducing provider workload for reporting.

Introduction

Assessing the integration of health programs involves several factors. These assessments can be aided using frameworks to guide analysis. Atun et al (2010) developed the *Integration of targeted health interventions into health systems* conceptual framework that is useful for mapping the nature and extent of integration of health interventions into existing services. The framework includes different factors which influence the integration process including defining 1) the health problem, 2) the intervention, 3) the adoption system, which includes values, interests, and power dynamics between key stakeholders, 4) health system characteristics, which include governance, financing, planning, service delivery, monitoring and evaluation, and demand generation, and 5) the broad context which includes cultural, economic, and demographic factors (Atun et al, 2010).

While all the elements are necessary for integration of a health intervention into an existing system, the system's ability to monitor and evaluate integration is particularly important to assess the processes of integration and effects of the intervention. The adoption system—values, interests, and power dynamics between key stakeholders--influences both integration (e.g., whether, when, how) and whether the intervention is, or can be, adequately assessed.

Interest in providing family planning integrated into other health services has increased in the last five years. In 2012, the United States Agency for International

Development (USAID), the United Nations Fund for Population Activities (UNFPA), the World Health Organization (WHO), and the International Planned Parenthood Federation (IPPF) with participation from over 25 additional organizations involved in international family planning programming developed a list of "High Impact Practices in Family Planning," which includes family planning integrated into postabortion care (PAC) and in the extended postpartum period during child immunizations as proven and promising high impact service delivery practices (Family Planning High Impact Practices, 2017).

In 2013, the International Federation of Gynecology and Obstetrics (FIGO), the International Confederation of Midwives (ICM), the International Council of Nurses (ICN), USAID, the White Ribbon Alliance (WRA), the Department for International Development (DFID), and the Bill and Melinda Gates Foundation wrote a *Consensus statement on postabortion care family planning* which committed these organizations to ensure that family planning counseling and services are included as an essential component of PAC, that would empower women to prevent unintended pregnancies and further abortions, and to help allow for optimal pregnancy spacing. These organizations also encouraged others to join them in this commitment (International Federation of Gynecology and Obstetrics (FIGO) et al., 2013). Also in 2013, the organizations that committed to postabortion care family planning (PAC-FP), along with Australia AID, the WHO, UKaid, Jhpiego, MCHIP, the World Bank, IPPF, the Population Council, and Save the Children wrote the *Statement for Collective Action for Postpartum Family Planning* which states that programs should prioritize providing access to family planning for postpartum women as they have the highest unmet need for family planning (United States Agency for International Development (USAID) et al., 2013). The

statement calls for this to be done through operational plans and budgets and includes updating knowledge and skills for providers in offering postpartum family planning (PPFP) (United States Agency for International Development (USAID) et al., 2013).

While it is well established that integrating services such as family planning into postabortion and postpartum care can increase contraceptive use and decrease maternal and child deaths (International Federation of Gynecology and Obstetrics (FIGO) et al., 2013; World Health Organization, 2013), little information exists on the monitoring and evaluation of such programs at country or regional levels. For example, no studies of PAC using misoprostol documented postabortion contraception use, one of three major components of PAC (Huber, Curtis, Irani, Pappa, & Arrington, 2016). Further, a Jhpiego 2016 field report on integrated services focusing on increasing women's use of PPFP in five West and Central African countries found that none of the countries' health systems had high quality documentation of integrated services in their national health management information system-- even after training, standardized record keeping formats and protocols, and follow up support (Pleah et al., 2016).

Togo is a case in point. Two studies on PAC and record keeping at five participating health facilities sites conducted by the USAID-funded Evidence to Action (E2A) project documented that in 2014 the monitoring systems for PAC were informal and non-standardized in four of the five facilities (Fikree, Murgore, & Forrester, 2014). With further training and support, a follow up study in 2016 in the same sites found standardized PAC registers which were generally filled out at the patient level, but the information was not transferred to the district, regional, or national levels (Mugore, Kassouta, Sebikali, Lundstrom, & Saad, 2016).

Numerous challenges to monitoring and evaluation are related to the adoption system in low resource settings. These challenges are often exacerbated by the increased interest in monitoring progress towards international benchmarks such as the Millennium Development Goals (Boerma & Stansfield, 2007; Organization, 2010) and the more recent Sustainable Development Goals, as well as indicators for health initiatives funded by international organizations. Some of these barriers include a lack of funding and resource allocation to monitoring and evaluation (Wisniewski, Yeager, Diana, & Hotchkiss, 2016), a disconnect between expectations of high quality monitoring systems and the level of detail required in reporting (Chaulagai et al., 2005; Kimaro & Twaakyondo, 2005; Wisniewski et al., 2016), poor linkages between monitoring systems and points of data generation (Thiam, Kimotho, & Gatonga, 2013), a shortage of trained professionals working in monitoring and evaluation (Jacucci, Shaw, & Braa, 2006; Ledikwe et al., 2014; Mphatswe et al., 2012; Nash et al., 2009), and the large quantities of required health indicators (Wisniewski et al., 2016) which often results in duplication of data collection and frequent underutilization of existing data collection tools (Chan et al., 2010; Kawonga, Blaauw, & Fonn, 2012).

The best methods for reporting integrated family planning programs in practice are still being developed, especially in areas where health care is highly fragmented by type of service delivery (such as vaccination, maternity care, HIV care) (Adamchak, Okello, & Kabore, 2016; Chabikuli et al., 2009; Spaulding et al., 2009). The published literature lacks information about the processes and strategies for reporting integrated family planning services when implemented (World Health Organization, USAID, & Maternal and Child Health Integrated Program, 2013).

Agir pour la planification familial (AgirPF) is a 5-year USAID/West Africa project (2013-2018) implemented by EngenderHealth and the Togolese Ministry of Health to build capacity in and increase access to family planning, with particular interest in the integration of family planning into PAC and postpartum services. AgirPF was implemented in the urban and peri-urban areas of five West African countries: Burkina Faso, Cote d'Ivoire, Mauritania, Niger, and Togo. In this paper, we describe the extent to which monitoring and evaluation systems of health services operating within *AgirPF* project area in Togo captured integrated family planning services. We then examine the influence of values, interests, and power dynamics between key stakeholders- the adoption system- on quality of the monitoring and evaluation system and discuss the implications for policy, programming, and research. The paper is based on research that was conducted as part of a larger case study completed by EngenderHealth's *AgirPF* in April-August 2016.

Methods

Study design

The study, conducted April-August 2016, used mixed methods including health facility assessments, health service record review, key-informant interviews, and participant observation. Atun et al.'s *Integration of Targeted Health Interventions into Health Systems* Conceptual Framework (Atun et al., 2010) served as a guide for the development of data collection instruments and the analysis of factors influencing integration of family planning into PAC and postpartum services.

Setting

The study was situated in the three largest urban areas in Togo, Lomé (pop. 956,000), Sokodé (pop. 114,800), and Kara (pop. 110,900) (Central Intelligence Agency, 2017). *AgirPF* led the study in partnership with the Togolese Ministry of Health; Schools of Midwifery, Nursing, Assistant Nursing/Midwifery, and Medicine; NGOs/international organizations, and health facilities in the study areas. Between February and June 2016, and prior to data collection for this study, *AgirPF* initiated the integration of family planning with the training of health care workers at 35 of the health facilities in PAC/PAC-FP, and health care workers at seven of the health facilities in postpartum intrauterine device (PPIUD) insertion. The first author was the principal investigator of this study while working as the Monitoring and Evaluation/Research Specialist on the *AgirPF* Togo project.

Procedures

Health facility assessment

We obtained a diverse, purposive sample of 25 health facilities affiliated with *AgirPF* including university hospitals (n=2), regional hospitals (n=3), district hospitals (n=5), large community health facilities (n=9), a health dispensary (n=1), and private clinics (n=5).

For the assessment, the first author and two Togolese EngenderHealth health specialists adapted the EngenderHealth *Postabotion Care-Family Planning Service Availability and Readiness Assessment* (PAC-FP EngenderHealth, 2016) and ISSU *Enquete Finale au Niveau des Structures de Sante* (Final Survey at the Health Facility

Level) *2015 (Republique du Senegal, Measurement, Global Research and Advocacy Group, & Initiative Senegalaise de Sante Urbaine, 2015).* The adapted guide contained 194 both open and closed-ended questions. For this part of the health facility assessment, we focused on 19 questions related to monitoring and evaluation of reproductive, sexual, and child health services, and reporting of integrated family planning services. These questions included the availability and use of guidelines for reporting on integrated family planning and details of reporting in terms of how often, by whom, where the reports were sent, and how the information contained in the reports was used, and the names of registers used in recording integrated health service information as well as any reports that were compiled and sent regarding integrated family planning. Health registers are large books that are used to record and report information that the Ministry of Health requires for each type of reproductive and child health service provided (family planning, prenatal care, labor and delivery, postpartum care, vaccination, postpartum family planning including PPIUD insertion).

The first author and the statistician at the Demographic Research Unit at the University of Lomé trained a data collection team of two nurses and four midwives from the Demographic Research Unit and pilot tested the guide over a 4-day period in July 2016. During the pilot testing and initial health facility assessments, the research team discovered that health workers were adapting the government approved and widely used family planning health registers to capture additional aspects of health service integration. This included recording information about what other services the woman received (PAC, postpartum care, immunizations, child health) in addition to whether the woman came on her own or with her husband/male partner. The health facilities also were

creating their own unofficial registers to capture information about PAC and general gynecological care.

With this discovery, the team was asked to photograph de-identified completed (filled out) health service registers, including family planning, following the health facility assessments to illustrate the different ways in which the registers had been adapted when the official register did not provide a way to capture information needed for reporting to the Ministry of Health and other agencies, including international NGOs.

The team conducted the assessment in person at the selected health facilities. They spoke with a staff member who had been designated by the director of the health facility to participate in the assessment. If this staff member was unable to answer a question, other staff members were called on to participate. The responses to the health facility assessments were written in a questionnaire by the data collector through filling out designated boxes and circling different response choices according to the responses given by the health facility staff member. The dialogs between the health facility staff member and the data collector were not audio recorded. The team took photographs of different types of available health registers (e.g. not in use or inaccessible) and if the team member had use of a digital camera or smart phone with a camera the day of the health facility assessment. Photographs were transferred to a secure digital folder via Bluetooth and then deleted from the camera devices following transfer. Blank samples of individual family planning forms and booklets were obtained from the Ministry of Health along with photographs of the blank health registers. About 200 photographs were obtained in total.

The first author accompanied the data collectors on six health facility assessments and observed the health care workers completing their reporting procedures and informally asked questions to get a better understanding of the process of general health reporting in the health facilities; she also become more familiar with the reporting process through her work as the Monitoring and Evaluation/Research specialist with the *AgirPF* project. The assessments took, on average, three hours to complete.

The first author reviewed the completed assessments each evening, checking for complete and reasonable data, and instructed the data collectors to return to the facilities in the event of incomplete or confusing data. The statistical assistant at the Demographic Research Unit entered all the closed ended data from the health facility assessment questionnaire into SPSS 24 (IBM Corp, 2013) software for cleaning and analysis. The first author compiled the responses from the open-ended questions in tables in MS Word (Microsoft, 2013). Univariate analysis was conducted to generate descriptive statistics related to information about reporting on integrated family planning and the services offered at the facility related to integrated family planning.

The first author developed a simple guide to assist with the review and analysis of the photographs by record type. The guide included six questions: “1) What type of register is in the photo? 2) Is this an official printed government register or unofficial register created by the health facility? 3) Does the register in the photo only capture information prescribed in the headings? 4) If no, what other information is captured? 5) Are any of these data related to information about family planning provided with other services (“integrated family planning”)? 6) How are these integrated family planning services recorded in the registers?” She then conducted the review and analysis using

qualitative methods based on the answers to these questions. After completing the review and analysis, the first author held informal discussions and exchanged e-mails with three health care workers who participated in the health facility assessments or in-depth interviews to further understand and clarify the expected system of reporting health service provision. These discussions were not recorded; information in the e-mails were used to clarify findings from health record review.

In-depth interview

We purposively sampled 41 total respondents from diverse professional roles within the Ministry of Health, academic institutions, NGOs/international organizations, and health services. These included faculty at schools of medicine, nursing, and midwifery (n= 3); directors and health workers in health services (n=9 and n=14, respectively); individuals working at reproductive health NGOs/international organizations (n=9); and those involved in reproductive health politics (n=7). This diversity in the sample was intended to elicit a variety of perspectives on reproductive health care from individuals with varying degrees of contact with the *AgirPF* program activities and trainings related to integrated family planning services. Respondents were recruited by *AgirPF* through official collaborations with the Togolese Ministry of Health, other reproductive health NGOs, and health facilities.

We developed and pretested five semi-structured interview guides appropriate to the type of respondent. Each of the guides included questions for respondents about multiple different aspects of family planning and integrated family planning in Togo. This paper uses data from the key-informant interviews related to questions about monitoring and evaluation of family planning and integrated family planning. Health care

workers and health facility directors were asked specific questions about their reporting methods. All the key-informants were asked about how having data about reproductive health services can help with planning for future service needs and what types of support exist to help with monitoring and evaluation of integrated family planning. Key-informants also discussed monitoring and evaluation as part of the introductory questions about barriers to family planning provision and closing questions about ways to improve access to family planning as well as in the final question about if they had additional ideas following the interview.

Five Togolese social scientists from the Demographic Research Unit and the first author conducted the face-to-face audio-recorded interviews in French. The interviews took place at a time and location chosen by the respondents, usually a private area at their place of work, and took from 30 to 150 minutes to complete. Interview recordings were transcribed verbatim in French by the Togolese social scientists using Express Scribe software version 5.000 (NCH Software, 2014) and then copied into MS Word 2013 (Microsoft, 2013).

Interview transcripts were entered into Nvivo 11 for analysis (Nvivo qualitative data analysis Software, 2015). The first author developed initial codes and an initial codebook with the input of Togolese social scientists. The codebook generally followed the main topics of the interview guides. The first author then coded all transcripts using the codebook and applied thematic analysis, a rigorous, inductive set of procedures with the goal of identifying and examining themes from textual data in a way which is transparent. Thematic analysis draws on multiple theoretical and methodological perspectives within qualitative research and has the ultimate goal of presenting the

experiences and responses of research participants as accurately and comprehensively as possible (Guest, MacQueen, & Namey, 2012). Matrices were created in Nvivo to better understand the intricacies of the responses by participant type and location for codes related to monitoring and evaluation of reproductive and sexual health and emerging methods of recording family planning integrated into postabortion and postpartum care. The matrices displayed the frequency of codes by different types of respondents. Transcripts were then re-read for further understanding of themes identified, and quotes were chosen to further illustrate selected themes.

Participant observation

In addition to the study methods mentioned above, the first author also was involved in monitoring and evaluation of integrated family planning through her work as the Monitoring and Evaluation/Research Specialist at the *AgirPF* project. Part of this work included speaking with health care workers and health facility directors about data collection related to the *AgirPF*- supported services. This experience provided a greater understanding of the current reporting systems as well as its strengths and weaknesses.

Ethical review and informed consent

The study was approved by the Institutional Review Board at Emory University, the EngenderHealth Knowledge Management, Monitoring and Evaluation, and Research group, and the Togolese Ministry of Health *Comité de Bioéthique pour la Recherche en Santé (CBRS)*. Data were collected only after written informed consent was taken using standard disclosure procedures.

Results

The results are presented beginning with the health facility assessment followed by the results from the key informant interviews.

Health facility assessment

Description of the facilities

There were 13 facilities in Lomé, four in Sokodé, and eight in Kara. Eleven of the facilities provided PAC prior to the start of the *AgirPF* project in 2013. In 2016, 24 the facilities had some of their health care workers trained by *AgirPF* in PAC and PAC-FP, six had health care workers trained in PPFP and PPIUD insertion. All the health facilities were supported in some way by the *AgirPF* project.

Table 3.1 shows the types of reproductive and child services available at each health facility with an associated official government issued register or with an unofficial register made by each health facility. Almost all the facilities offered family planning, PAC, prenatal care, labor and delivery, postpartum care, child health, and immunization. In relation to providing and recording family planning integrated into other health care services, only 10 facilities had guidelines about how to report on integrated family planning services. Family planning was most frequently recorded with PAC (21 facilities) and least frequently with child health (11 facilities) and immunization (11 facilities).

Table 3.1: Types of services provided, presence of integrated family planning reporting guidelines, and reporting tools for integrated services.

	University Hospital (n=2)	**Regional Hospital (n=3)**	**District Hospital (n=5)**	**Large community clinic (n=9)**	**Dispensary (n=1)**	**Private (n=5)**	**Total (n=25)**
Types of services with associated reporting register							
Family planning	2	3	5	9	1	5	25
*Postabortion**	2	3	5	8	1	5	24
Prenatal	2	3	5	9	1	5	25
Labor/delivery	2	3	5	9	1	3	23
Postpartum	2	3	5	9	1	5	25
Child health	2	3	5	8	1	4	23
Vaccination	2	3	5	9	1	5	25
Presence of guidelines for reporting integrated services							
Yes	0	0	2	5	1	2	10
Observed or reported records on family planning integrated into:							
*Postabotion care**	2	3	4	7	1	4	21
Immediate postpartum	2	1	4	6	1	3	17
Postnatal Care	0	1	5	8	1	2	17
Infant care	0	1	2	7	0	1	11
Vaccination	0	1	5	4	0	1	11

*Italic indicates an "unofficial" register

System of reporting reproductive and child health services

The expected system

The expected flow of information in the system is from the patient to the health facility to the district, regional, national, and international levels of the Ministry of Health (Figure 3.1). At the patient level, the health care worker must enter and then re-enter information multiple times about a single patient. For information to flow from the patient to facility levels, the health worker must enter information into a patient booklet and, for family planning and vaccination, into a patient form for these services. Then the

health worker must file the patient form(s) and enter the information in the patient health booklet and sometimes a patient health form into one or more official health register(s). The PPFP/PPIUD register was the only official register which included information about integrated family planning services. This register also had a corresponding book with carbon copy sheets for the monthly reports sent to the Ministry of Health and the partner organizations (Figure 3.2).

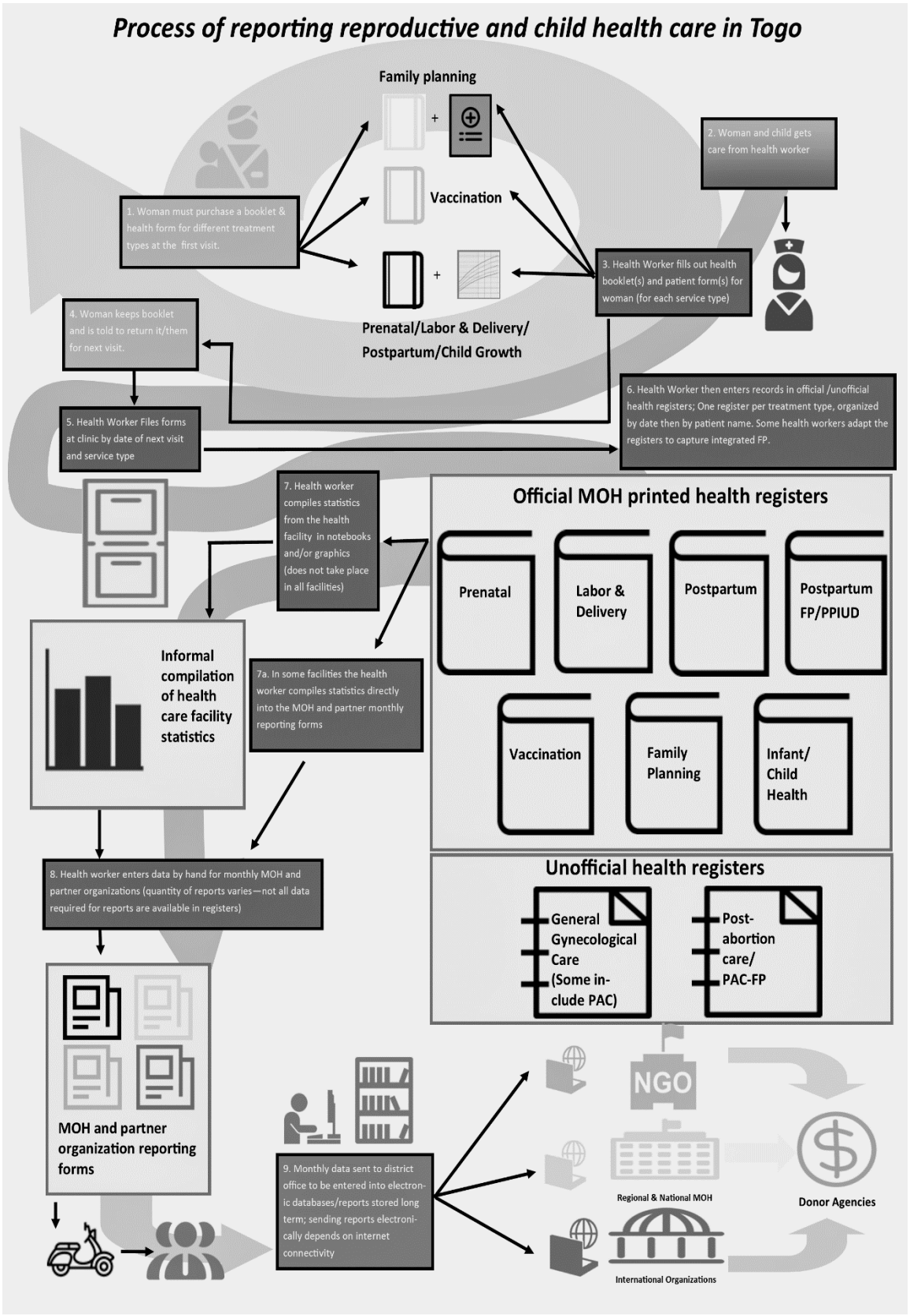
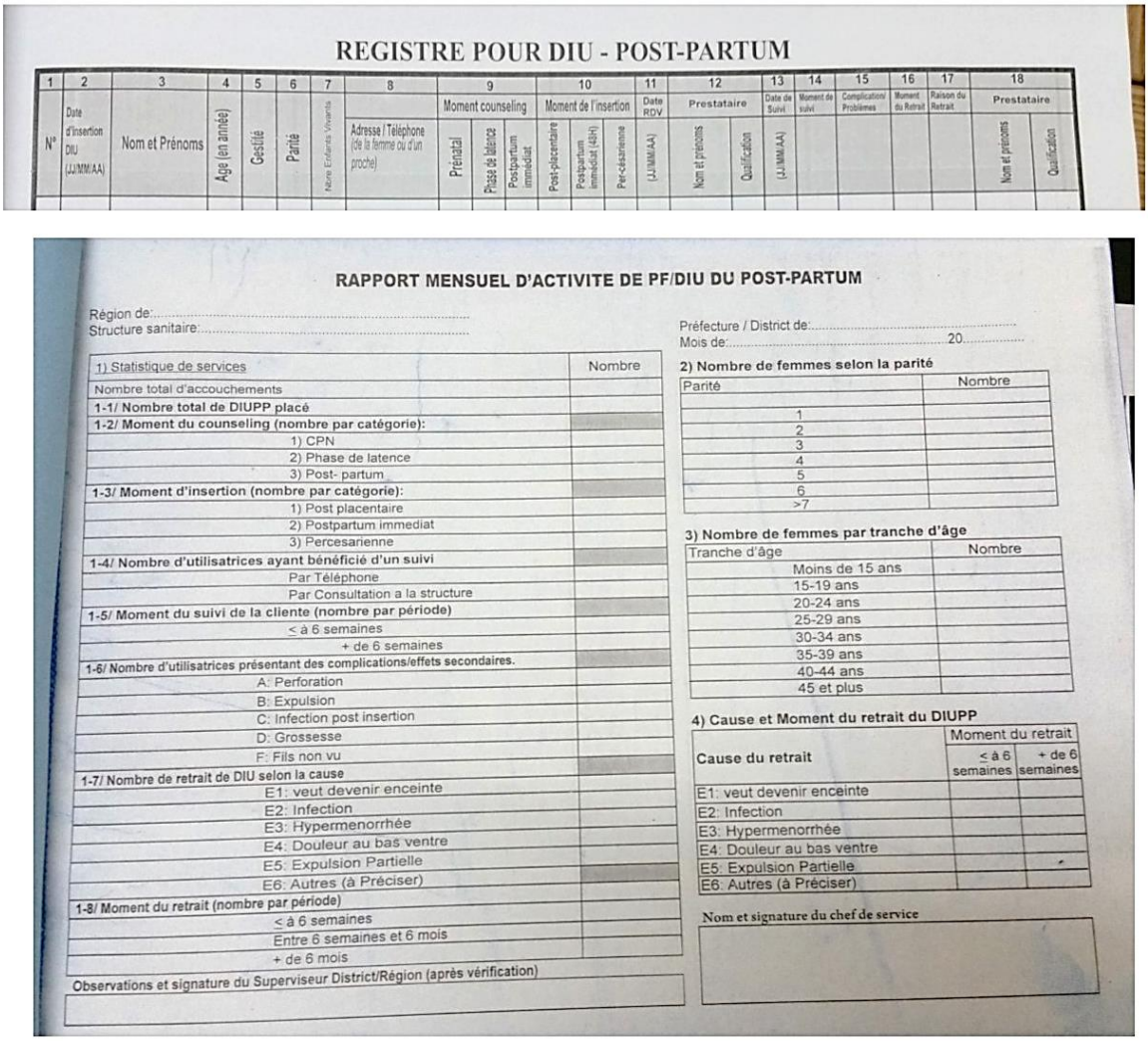


Figure 3.1: The process of Reporting Reproductive and Child Health Care in Togo



REGISTRE POUR DIU - POST-PARTUM

1	2	3	4	5	6	7	8	9			10			11	12		13	14	15	16	17	18	
N°	Date d'insertion DIU (JJ/MM/AA)	Nom et Prénoms	Age (en année)	Gestité	Parité	Nbre Enfants Vivants	Adresse / Téléphone (de la femme ou d'un proche)	Moment counseling			Moment de l'insertion			Date RDV	Prestataire		Date de Suivi	Moment de suivi	Complication/ Problèmes	Moment du Retrait	Raison du Retrait	Prestataire	
								Prénatal	Phase de latence	Postpartum immediat	Post-placentaire	Postpartum immediat (48H)	Per-césarienne	(JJ/MM/AA)	Nom et prénoms	Qualification	(JJ/MM/AA)					Nom et prénoms	Qualification

RAPPORT MENSUEL D'ACTIVITE DE PF/DIU DU POST-PARTUM

Région de:.....
Structure sanitaire:.....

Préfecture / District de:.....
Mois de:..... 20.....

1) Statistique de services	Nombre
Nombre total d'accouchements	
1-1/ Nombre total de DIUPP placé	
1-2/ Moment du counseling (nombre par catégorie):	
1) CPN	
2) Phase de latence	
3) Post- partum	
1-3/ Moment d'insertion (nombre par catégorie):	
1) Post placentaire	
2) Postpartum immediat	
3) Percesarienne	
1-4/ Nombre d'utilisatrices ayant bénéficié d'un suivi	
Par Téléphone	
Par Consultation a la structure	
1-5/ Moment du suivi de la cliente (nombre par période)	
< à 6 semaines	
+ de 6 semaines	
1-6/ Nombre d'utilisatrices présentant des complications/effets secondaires.	
A: Perforation	
B: Expulsion	
C: Infection post insertion	
D: Grossesse	
F: Fils non vu	
1-7/ Nombre de retrait de DIU selon la cause	
E1: veut devenir enceinte	
E2: Infection	
E3: Hypermenorrhée	
E4: Douleur au bas ventre	
E5: Expulsion Partielle	
E6: Autres (à Préciser)	
1-8/ Moment du retrait (nombre par période)	
< à 6 semaines	
Entre 6 semaines et 6 mois	
+ de 6 mois	

Observations et signature du Superviseur District/Région (après vérification)

2) Nombre de femmes selon la parité

Parité	Nombre
1	
2	
3	
4	
5	
6	
>7	

3) Nombre de femmes par tranche d'âge

Tranche d'âge	Nombre
Moins de 15 ans	
15-19 ans	
20-24 ans	
25-29 ans	
30-34 ans	
35-39 ans	
40-44 ans	
45 et plus	

4) Cause et Moment du retrait du DIUPP

Cause du retrait	Moment du retrait	
	< à 6 semaines	+ de 6 semaines
E1: veut devenir enceinte		
E2: Infection		
E3: Hypermenorrhée		
E4: Douleur au bas ventre		
E5: Expulsion Partielle		
E6: Autres (à Préciser)		

Nom et signature du chef de service

Figure 3.2: Inside official Postpartum Family Planning/PPIUD insertion register with carbon copy monthly reporting sheets

The actual system: individual level reporting

If an official register did not exist for a given service, sometimes health workers were told to create an unofficial register for the service using a notebook and pen, inserting columns for recording information. Unofficial registers were used most often for general gynecological care (which sometimes included PAC/PAC-FP) as well as a PAC/PAC-FP registers. There was little consistency across sites – they were idiosyncratic

and site-specific in the unofficial records across the sample facilities with respect to titles and the information captured. For example, the unofficial registers for PAC had different titles, such as “PAC Register,” “Manual Vacuum Aspiration Register,” and “Postabortion Care Notebook Register.” Figure 3.3 shows the different examples of PAC registers in use and a list of commonly included information in the PAC register.

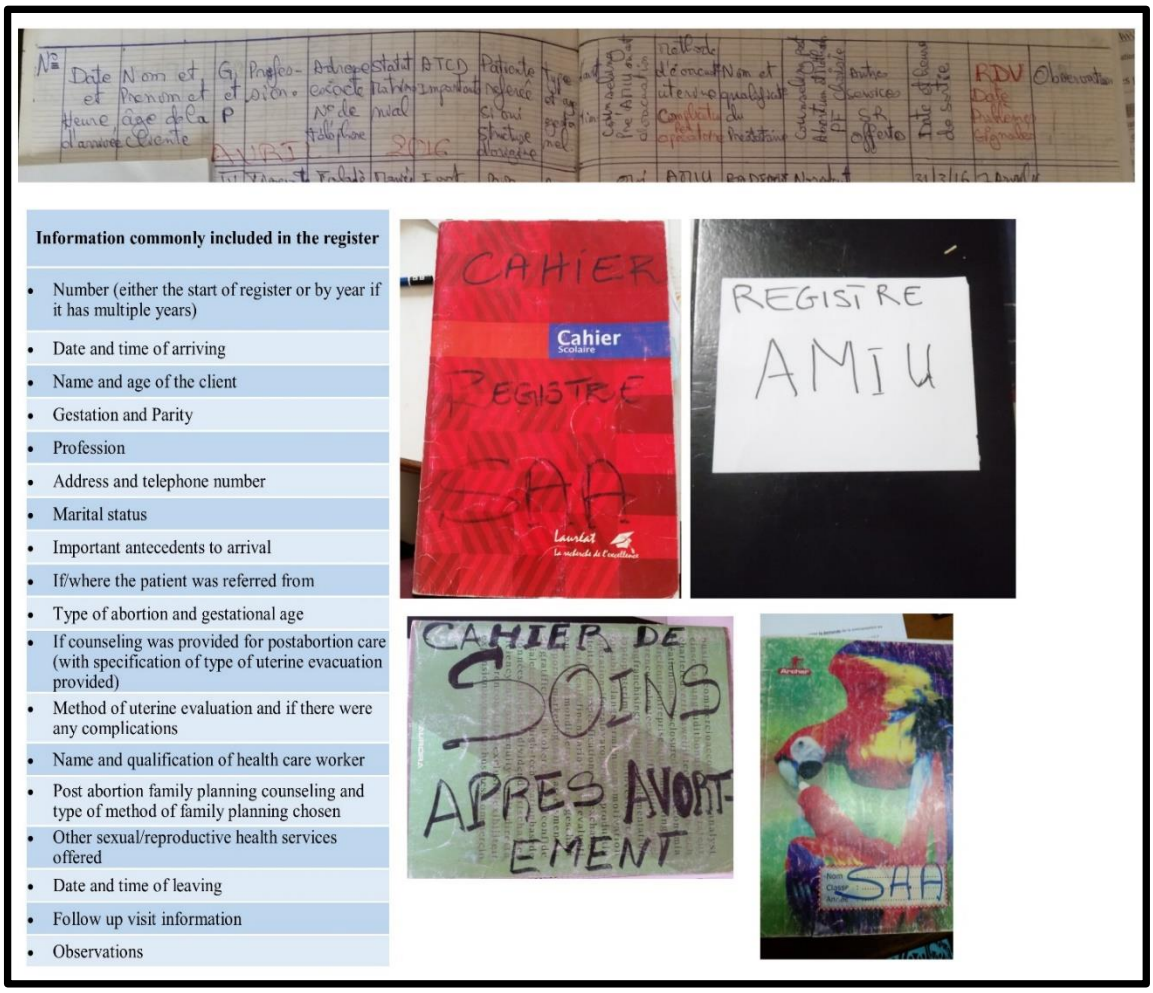


Figure 3.3: Examples of PAC Unofficial Registers with commonly included reported information

Family planning registers were adapted to capture when someone received family planning as part of other health services to enable them to include these data about integrated health services into the monthly service provision reports (Figure 3.4).

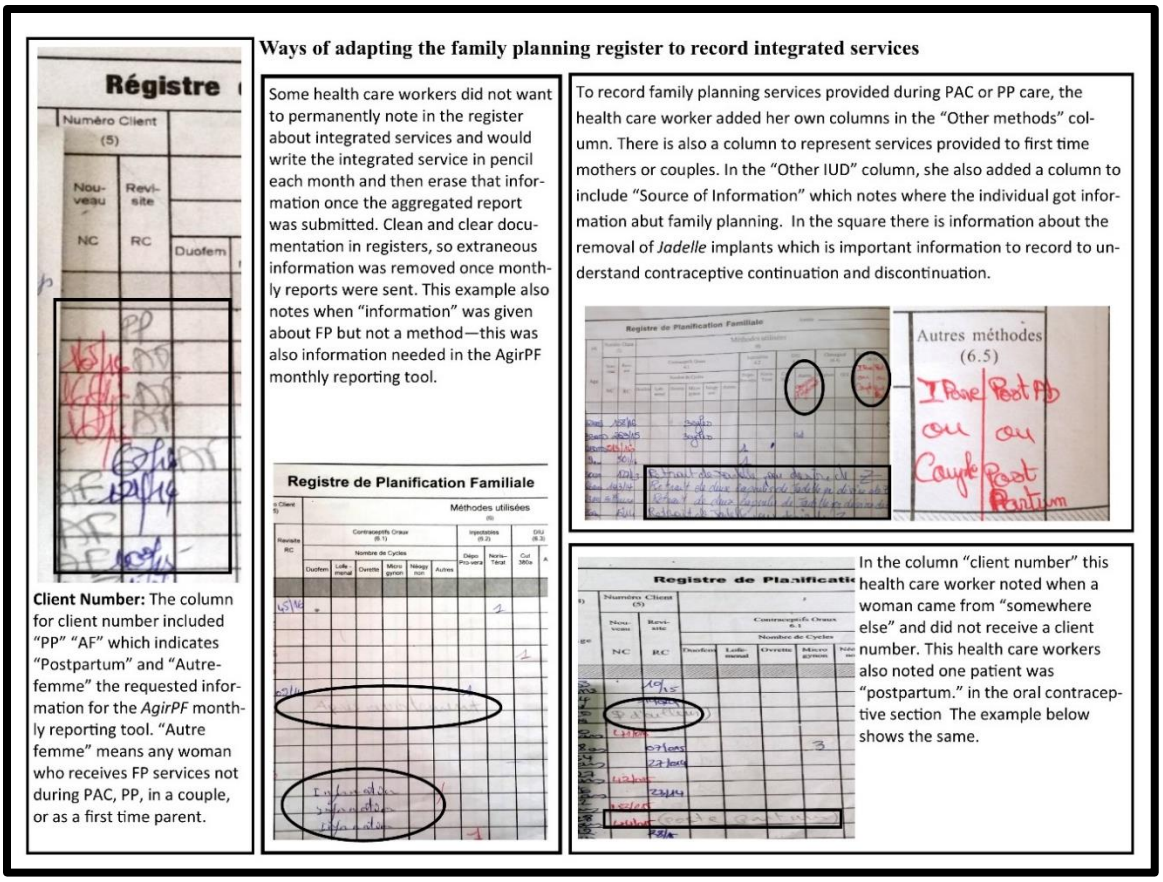


Figure 3.4: Ways of adapting the family planning register to record integrated services

The actual system: facility-level reporting

Within the past two years, the Ministry of Health revised their monthly service provision reporting form, *Report of Maternal and Infant Health*, to include integrated family planning. However, the existing service Registers were not changed accordingly (Table 3.2). As a result, the Registers did not always have the data needed to complete the new form at the facility level.

Table 3.2: Categories of information collected monthly in the revised "Report of Maternal and Infant Health" form

- Women receiving family planning by method type
- Women receiving prenatal care
- Women with a referral to a high level of care due for pregnancy services
- Deliveries by method of delivery and complications from delivery
- Women receiving postnatal visits
- Women who received a family planning method immediately after delivery
- Women who received a PPIUD
- Neonatal and maternal deaths
- Women who received abortions by type (spontaneous or provoked)
- Women who received PAC and PAC-FP
- Women who received emergency obstetric care
- Availability of emergency obstetric care
- Availability of staff trained in emergency obstetric care

In addition to reporting at facility level for the Ministry of Health, the health care workers were also required to report monthly to the *AgirPF* project using *AgirPF's* form. This form included aggregate data on the number of individuals receiving information about family planning, types of family planning received by service delivery method, patients' ages, and by type service the person received (postpartum care, PAC, other women receiving family planning exclusively, men, and if a first-time parent), and stock outs of contraceptive commodities. The respondents noted that they also prepared reports for other national and international organizations when asked.

The greatest discrepancy between the sample facilities with respect to reporting up the chain (Figure 3.1) was when and where the facility level reports were sent. All but three of the health facilities sent reports monthly. Figure 3.5 shows the recipients of reports sent by the health facilities. The most common responses included NGOs and the district level Ministry of Health.

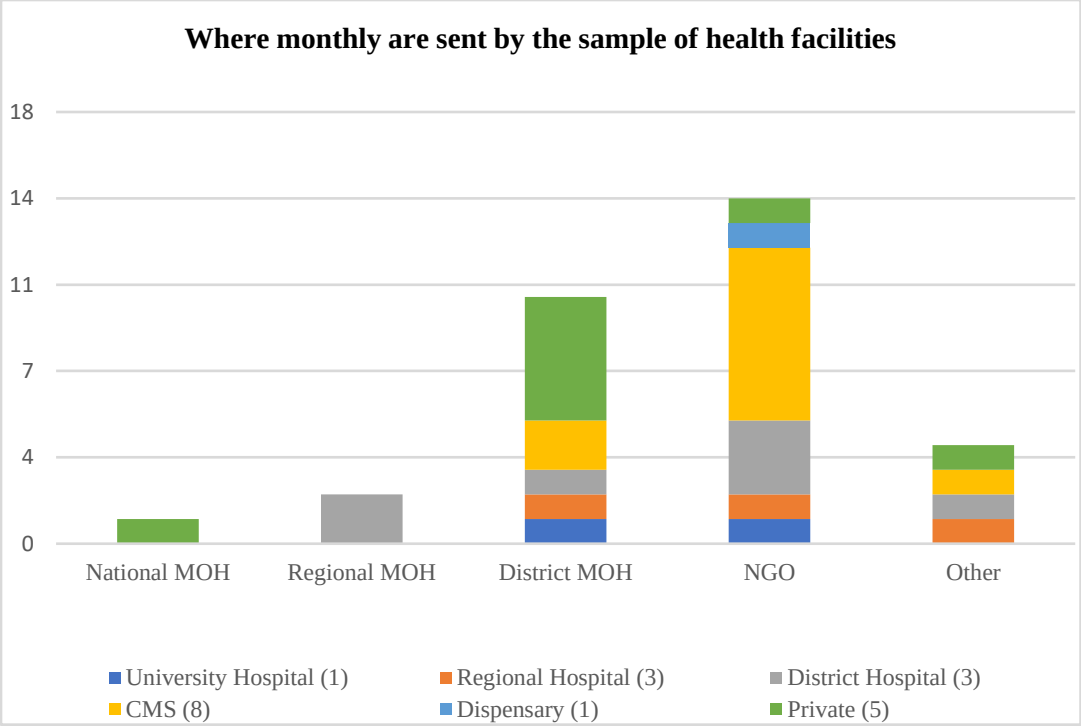


Figure 3.5: Where reports are sent each month by the sample of health facility

Key informant interviews

Table 3.3 gives information about the 41 key informants involved in the study. Two of the health faculty were trainers for PAC, PAC-FP, PPFP, and PPIUD for the *AgirPF* project. One health facility director was trained in PAC/PAC-FP and three were trained in PPFP/PPIUD. One of the health care workers was trainer for PAC and eight had been trained in PAC. Four of the health care workers had been trained in PPFP/PPIUD insertion.

Table 3.3: Informant Characteristics

Characteristic	**Category of Informant**				
	Health faculty (n=3)	**Health facility directors (n=10)**	**Healthcare workers (n=14)**	**NGO workers (n=8)**	**Policy makers (n=7)**
Age (Mean, SD)	49.3 (15.0)	45.1(10.8)	38.8(8.7)	53.2(6.2)	50.3(9.1)
Sex (%)					
Male	66	70	14	75	29
Female	33	30	86	25	71
Medical training (%)					
Doctor	33	100	0	50	14
Physician assistant	33	0	21	0	14
Midwife	33	0	65	12	57
Nurse	0	0	7	0	0
Midwifery assistant	0	0	7	0	0
No medical training	0	0	0	38	14
Location of work (%)					
Lomé	0	50	43	63	71
Sokodé	33	20	29	25	14
Kara	0	30	29	13	14
Lomé & Kara	66	0	0	0	0
Type of work place					
Academic institution	100	0	0	0	0
University Hospital	0	20	14	0	0
Regional Hospital	0	30	21	0	0
District Hospital	0	10	14	0	0
Neighborhood Clinic	0	10	21	0	0
Dispensary	0	0	7	0	0
Private Clinic	0	20	21	0	0
International Org	0	0	0	13	0
International NGO	0	0	0	25	14
National NGO	0	0	0	63	0
National MOH	0	0	0	0	43
Regional MOH	0	0	0	0	43
Years working in RH (mean, SD)	22.7(12.7)	107.0(11.0)	12.0(7.4)	20.1(11.3)	19.0(8.5)

*One key informant was interviewed as both a faculty and health facility assessment

How family planning registers are being adapted to include integrated family planning data

The health workers interviewed conveyed a great interest in ensuring high quality reporting within the health care registers. What they noted as missing was appropriately formatted registers—both official and unofficial-- which captured all the information

required in the facility level monthly reports sent to the district Ministry of Health and partner NGO projects. This most frequently occurred with the family planning register. One of the educators who also worked as a clinician in a district hospital noted,

> *Some indicators that we have to track are not noted in some registers, which is worrisome and causes extra work. The registers we have do not conform to the reporting tools. I suggest we review all the registers in use for family planning service providers and make sure they are consistent with the reporting tools. Then reporting would be easy. Because some indicators are not in the register but are in the [reporting sheets], now we must remember to ask that question [related to the reporting sheets] and record [it]. But if all the information is already in the registry, all those parameters in the registry would be easy and we would not forget to ask these questions. […] And now at the end of the month, it would be easy to report.* (FAC02)

Availability of support for integrated family planning reporting

Individuals involved in reproductive health politics, NGOs, and health facilities directors had varying responses in relation to available support and resources to help implement and record family planning integrated with other health services. All but two respondents to this question felt that further support was necessary and that currently the availability of resources for integrated reporting was lacking, in part because the formats were not as useful as they could be, as described above. A major theme across

respondents was how health care workers were already overwhelmed with the amount of required documentation that they were expected to produce. Respondents indicated that future reporting needed to be simplified or it would be necessary to have individuals specifically tasked with reporting. Individuals interviewed within the Ministry of Health noted that there were health workers assigned as "focal points" responsible for reproductive health in each region, and that these individuals were assigned to work on reporting of reproductive health services. Training of health providers was a prominent request in improved reporting methods.

International NGOs provided health workers with the support for documentation of integrated services. As one midwife in charge of PAC said, "*We do not have a well-established registry for postabortion care. We trace lines, we put some numbers [but that is it]. The family planning register is well prepared and established […] so we need that too; If you could integrate the two registries and make a registry for postabortion care, that would be good*." (HCW08)

During the PPFP/PPIUD training conducted by Jhpiego and EngenderHealth, health care workers being trained were given hard cover, bound registers approved by the Ministry of Health to record PPFP/PPIUD insertion to use at their respective health facilities as discussed above (see in Figure 2). One individual involved in reproductive health politics said, "*For PPIUD, Jhpiego provided a register for postpartum care! But postabortion care currently does not even have a proper collection tool. It is handmade and could be used at all levels but is not." (POL05)*

Uses of family planning data that is reported

There was not consensus as to who used the collected family planning data from the informants as was noted above in the health facility assessments. Informants named the Ministry of Health, the Division of Family Health/Division of Maternal and Infant health/Family planning, funding organizations, general government, their superior at the health facility, NGOs, United Nations agencies, and/or that it was used at all levels of the health system. Only six of 41 informants (three health care workers, three health directors) noted that they used the collected data from the health facilities themselves to inform their work and programming. While no one directly said that there was a disconnect between the health care providers who were undertaking most of the documentation and individuals who use the documentation, from the interviews only three of the 14 health care workers interviewed mentioned that they, themselves use the family planning data. The health care workers were aware that the information was used at higher levels of the health care system.

Challenges and possible solutions associated with reporting integrated family planning services

1. Too many different registers

Adding registers for integrated family planning was the most common way of recording these services (e.g. official PPFP/PPIUD insertion register and unofficial PAC register). Two informants noted that there were numerous registers for all different types of health care areas and that there may be a point at which the number of registers was becoming excessive. One director noted, "*There are too many registers to fill out, but to get all the integrated services information one is tempted to increase the number of*

registers. On the other hand, we must rationalize to avoid having too much data to fill in. […] Integrated family planning must also be part of the overall data collection plan that is being worked on at the Ministry of Health" (DIR08).

Possible solutions suggested for this problem included bringing in support staff to help the health care workers to complete the reporting or, as noted above, revision and streamlining of relevant health reporting tools. One politician said, "*So if there are specialized services for data collection as well, it could be helpful*." (POL01) An NGO worker said,

> *review the reporting templates so as to lighten the burden on the providers because […] each partner comes with its framework that is different from the department's framework. At the departmental level, […] each service has a service reporting framework with several indicators. But if we can have a single report structure that includes all the information that can be used by all the actors and in which one can have indicators and which do not repeat […] in my opinion it will help a lot in relation to the monitoring and evaluation.* (NGO07)

2. Lack of a standardized reporting system

The need for standardized tools was noted by many of the informants. Without the proper tools to measure the integration of services it is impossible to know if the services are currently being integrated. An NGO worker and an individual involved in politics noted that the postpartum family planning had a standardized notebook, but this was not

the case for postabortion care. An individual from a reproductive health NGO said, "*In terms of integration, data collection needs to have integrated tools, […] which must be at all levels of [patient care] delivery." (NGO05)*

Possible solutions for this were given by two informants (a health worker and a director) which included having the government officials learn more about reproductive health work needs and implementing computerized systems. The health care worker said, "*it is necessary that [government officials] come to learn about our needs where we work to help improve services and reporting*." (HCW08)

One director wanted to make all the reporting in a computerized format, possibly using electronic tablets for providers to enter all data at the patient level. With this it would be possible to have a program that automatically aggregated the data so that reports at the end of the month could quickly be compiled. This director noted, "*I have about 40 health facilities which send reports […] So there is a significant margin of error between the information in the registers and the synthesis that will be given to us. And there is a possibility of errors at the level of the entry at the prefectural level.*" (DIR07) Computers were not commonly available at the health facility level.

3. Difficulty in getting access to the registers

More integration of registers took place in smaller health facilities compared to larger hospitals due to the geography of the hospitals and the separation of departments for PAC, labor and delivery, vaccination, and family planning. In the larger hospitals, the different gynecological services were offered in different areas by individuals trained specifically in that area, so the health care staff who oversee the family planning programs were not the ones who were running the PAC services. The hours of service

availability also varied depending on the type of service. For instance, the maternity wards were open 24 hours a day, seven days a week, but the family planning services were not. It was difficult to get the necessary access to these different areas within the larger health facilities to fill out the appropriate register. Often the person doing the PAC service had to go to the family planning service the following day to enter the information about the person receiving family planning. But the patient being registered the following day in the family planning registers at the larger hospitals was not necessarily identified specifically as having received family planning as part of the PAC unless one compared the family planning register with the PAC register and identified the woman by name.

In the smaller health facilities, one or two health care providers were responsible for all reproductive health services. This made it easier for them to record the integrated services since they were the ones providing all the services in one location. This way the registers were kept in one area and the health worker had the ability to choose how that register was used and how integrated services were noted.

One director of a larger health facility gave an excellent overview of how the location of the service influenced where that service reporting was written:

> *We have a register at the family planning unit. We also have the [family planning] cards that make it possible to see if the woman there is eligible for family planning or not. […] In the maternity [unit] we have a register to record cases of postpartum family planning care since […] we give appointments four to six weeks after delivery, especially for women who received PPIUDs to check*

> *if the strings have descended into the cervix [..]. During the first six weeks, follow-up is done at the maternity level. [If family planning is provided] after an abortion it is recorded in the post-abortion care registry book and the person also has a green card. (DIR09)*

As detailed above, health workers, health facility directors, and individuals involved in reproductive health politics noted the strains of having multiple registers to fill in. This was in addition to not having the appropriate information in the registers to fill out the monthly reporting forms that were brought to the districts each month and aggregated at the regional and national levels.

According to informants, possible solutions to this included having the family planning register available in common locations which all health care workers have access to it or change to use computers or tablets to report on services at the patient level in a system such as DHIS2. One NGO worker said, "[*The family planning] tools can be available in the delivery rooms […]. Since the delivery is every moment […] whereas family planning is during the day. So […] study the routes […]in the centers, the clinics, in the maternity hospitals, and to help the providers the managers of these maternities to set up these routes.*" (NGO05) The NGO workers wanted to have further exploration into how the problem of register location could be improved with greater knowledge of the work flow.

4. Too much to record and too little time to do it

Health care workers in Togo provide hundreds of services each month and are required to also chart these services, often in multiple charts and registers by hand. An

individual involved in reproductive health politics said, *"[Data collection] is done by service providers and they have a lot of work. The providers have to be providers, and, I do not know computer scientist, logistician, as well - they do everything at the same time."* (POL01) The large number of tasks for which health care workers were responsible was mentioned throughout the interviews.

Possible solutions posed to this included having less information for the providers to fill out and adapt the reporting tools to streamline the process. One NGO worker said, *"First, we need to have well-designed reporting tools that are not overloaded because I know that there are not many midwives but when there are too many registers to fill that causes fatigue. We must […] adapt reporting tools and train personnel use of these tools."* (NGO06)

Why family planning reporting matters

The informants agreed that recording family planning played an important role in influencing future service needs. The areas which were prominent included the necessity to be able to make decisions and predict future service use; the ability to monitor improvements or declines in service, and if established goals were met (which was particularly important to NGO workers, health facility directors, and individuals involved in politics); a way to justify staffing and expenses; and a way to see if there were current unmet needs or new program needs. One health facility director said,

> *Without the data, you have no good decisions! This is the big problem of the health service, […] When we have no data, you have less ability to understand the situation. You make*

> *uninformed decisions, and whatever resources you get, you will not move forward because you do not know the situation. When you have reliable data, and you use it properly, you have a clear view of the situation. And you can make plans […] So inevitably, the availability of quality data is what allows us to guide our decisions, […] to achieve the impact we want. This is why these data are extremely important for improving health in general and reproductive health in particular. (DIR07)*

An informant who worked at a reproductive health NGO noted that while not always used effectively, "*data allows us to know if we are moving towards the goals" (NGO01).* Another director highlighted the importance of having reports to make sure that patients are receiving services. He said, "*staff assignments are a function of the workload and to be able to evaluate the workload [you need…] the reports so when the reports are not done it is assumed that the person has been under treated […] and that there are enough health care providers because so few people are receiving services" (DIR09)* A health worker illustrated the importance of using reporting to know what areas of health at the population level needed attention and ways in which these areas could be addressed. She notes, "*studies showing the number of teenage pregnancies, the rates of family planning, the number of pregnancies per woman […] were really alarming. So, it is necessary to integrate family planning care to reduce the number of unwanted pregnancies using unsafe abortion" (HCW03).*

While there are many challenges to the reporting system, one key informant made a powerful statement when he said, in relation to improving reporting systems in Togo,

"*It seems like dreaming, but it is already done elsewhere, and it is a question of determination – we can do this if enough people think it is useful*." (DIR07)

Discussion

Reducing maternal and newborn morbidity and mortality is a priority of the Togolese government (Ministère de la santé Republique du Togo, 2013). Integration of family planning into other reproductive health services may help increase the modern contraceptive prevalence rate and decrease the unmet need for contraception to meet these goals. Quality data (e.g., timely, complete and accurate) are key to being able to accurately measure the success of integrated services (World Health Organization, 2003).

This paper examined expected and actual chain of reporting the integration of family planning in 25 health facilities in three large urban areas of the country. We highlight the formal and informal methods for reporting in these institutions and the local solutions to reporting challenges proposed by a diverse sample of 41 key informants. The information from the health facility assessments was substantiated by the review of health service reporting documents and the key informant interviews.

Challenges to data accuracy, completeness, and timeliness

The numerous challenges to obtaining accurate and complete data included a lack of guidance on how to record integrated health services information, non-standard systems of reporting integrated services, a mismatch between patient level information recorded in registers and in facility level monthly reporting formats, inconsistency in adaptation of family planning registers to record integrated family planning services across facilities in the same reporting area, non-standard reporting documentation for

PAC services, uncertainty about who uses the reports, and having multiple types of reporting forms for the Ministry of Health and for partner organizations (e.g. NGOs).

Challenges related to accuracy and timeliness included having multiple registers, one for each type of health service, requiring health workers to enter and re-enter the same information in multiple documents and locations, and having registers located in different departments of the health facility resulting in registers that are not reliably accessible to providers of integrated services at the time of service.

It is helpful to hone in on one major challenge for health workers: the number of times that health care providers are required to enter and re-enter information for each client seen in the clinic. This substantially increased provider workload, especially given the volume of clients they must see each day as well as other tasks such as cleaning and sterilization of equipment, health education, and training students.

In addition to the time spent recording and reporting data, as shown in Figure 3.1, data may be entered incorrectly or lost up to eight points along the flow of information. Even if data were entered into the register correctly, if a register is illegible, or if the register is inaccessible, large amounts of individual patient level data are lost to the system. In addition, data may also be lost or misrepresented when aggregated for the monthly reports, especially for the information that was not systematically captured in the registers (e.g. integrated family planning services) but is required for facility level reporting. Furthermore, no standard procedure exists for transferring the completed facility monthly reporting forms to the health districts. In most, but not all instances, a health worker in the facility transferred the report via motorcycle to the district Ministry of Health office for further aggregation and reporting up the chain.

Once the facility level reports arrive at the district Ministry of Health office, there is a potential for further degradation of data. The district Ministry of Health offices use electronic data entry and rely on a functioning internet service to transfer data to the Ministry of Health. Mistakes may occur during data entry and the means of transmitting aggregated data may fail resulting in lost information.

Solutions to data accuracy, completeness, and timeliness

While these barriers exist, there was a strong desire to improve the monitoring system and a great understanding of the importance of quality data for decision-making. The informants offered numerous solutions to improve health service reporting of integrated family planning services. One solution to improve accuracy and completeness of data proposed was to create standardized reproductive health service registers across the facilities, the contents of which would correspond to a standardized facility level monthly reporting form. Another solution was to develop an electronic data entry system (e.g. Demographic Health Information System 2 (DHIS2)) that would allow health care workers to enter individual client health care information directly into a tablet or computer. This would reduce the number of times information needed to be entered. Solutions to improve timeliness of reporting included assigning (and hiring if necessary) support staff in to assume responsibility for the task of reporting and to streamline the reporting process by reducing the overall number of registers and including only the absolutely necessary information in those registers. Informants also suggested that it would be helpful to conduct workflow studies in health facilities where the location of the registers limits access to these for certain health providers.

The health facility directors, individuals involved in politics, and NGO workers expressed great interest in the importance of accurate, complete, and timely data to inform health system decision making, monitor interventions, establish goals, and justify staffing levels. All the informants, irrespective of category, noted the need to reduce the burden on health care workers for collecting health information that flows up the chain with in the system. This was viewed as a major barrier to obtaining and transferring quality data.

The study findings highlight vulnerabilities with respect to data quality in each link of the reporting chain at the individual patient and facility levels. These findings are unfortunately common. Numerous studies have highlighted the many challenges to reliable and timely information related to health service and health status of the population including problems with completeness, accuracy, and timeliness in low resource settings (Garrib et al., 2008; Mate, Bennett, Mphatswe, Barker, & Rollins, 2009) and duplicate, parallel reporting systems and lack of capacity for data analysis (Chilundo, Sundby, & Aanestad, 2004) making planning, monitoring, and evaluation of these programs difficult (Lim, Stein, Charrow, & Murray, 2008; Ronveaux et al., 2005). In the end, a health monitoring and evaluation system that is designed (unintentionally) to generate poor quality data provides a shaky foundation for health service decision-making, planning and health policy.

Global discussions around challenges and improvements to reproductive health monitoring and evaluation

Recording information about different types of care in individual registers is not unique to Togo and has been noted in other sub-Saharan African countries (Gourlay et

al., 2015; Mate et al., 2009). This type of recording makes it difficult to assign individual identifiers and increases staff workload due to the duplication of material in each register and the frequent changes in data entry protocols (Gourlay et al., 2015). Adapting health care registers to capture the needed information on various reporting forms is also found in other African countries and leads to the need to adapt health reporting to improve and the system more flexible for capture multiple service provision in one visit.

In addition, while the innovation shown by the individual health workers in adapting the standard family planning form is important to recognize, it is not a long-term solution to improve the quality, ease, or time requirement of reporting. As in many low-resource countries, some areas of health care provision are supported by donor agencies that fund specific programs which often require additional reporting and documentation. These data should ideally be taken from existing data collection systems but often requires the creation of additional, parallel documents (Chilundo & Aanestad, 2005; Igira, 2012).

With all the challenges noted above, there is a need to streamline indicators related to maternal health and contraception. One example of this is the FP2020 initiative and the Track20 project, which monitors progress of achieving the FP2020 (increasing modern method users by an additional 120 million women between 2012 and 2020 in the world's 69 poorest countries) (Avenir Health, N.D.). The Track20 project works with FP2020 participating country's governments to collect, analyze and use family planning data to improve its strategies and plans. The Track20 project aims to reduce the need for heavy reliance on large national household surveys and instead use estimates of data collected through the public and private sector on specified family planning indicators

(Avenir Health, N.D.). Track20 uses a set of core indicators which were selected through a systematic, consultative process to allow for data-driven decision making by countries and measurement of how well individual needs are met (Avenir Health, N.D.). The Togolese Ministry of Health is in the process of transitioning to using the DHIS2 program, an open-source data management system for health data recording (University of Oslo, 2017). It is currently in the pilot phase in certain areas of the country. The plan is to have the prefectural level enter data from the health facilities. Ultimately the goal is to have data entered at the health facility level.

Integration of targeted health interventions into health systems framework

Returning to Atun's framework on the *Integration of targeted health interventions into health systems (Atun et al., 2010),* in Togo we can see that the system's ability to monitor and evaluate integration of family planning programs into other health services is lacking due to challenges within the health care system as well as the adoption system. The key stakeholders have differing views on the how the monitoring and evaluation system functions, who is responsible for each activity within the system, and the best ways to improve it. Monitoring and evaluation is a critical part of understanding the status of integration of a health intervention into an existing system, such as integrating family planning into PAC and postpartum care. Without this information, it is impossible to fully understand the extent to which this intervention is effective in accomplishing the desired outcomes and to plan for the future.

Future research questions

Numerous areas require further research into assessing and improving the reporting systems of integrated family planning programs. Time allocation studies of

health care providers could show the actual burden on health workers for each type of task and can demonstrate specific areas that may be appropriate for streamlining, including technologies and task shifting that could reduce time burdens. A study of task shifting was undertaken in Botswana involving the creation of a new cadre of health worker, the Monitoring and Evaluation District Officer. These individuals, newly graduated from university, were trained on the job for their tasks (Mpofu et al., 2014). After three years on the job, data quality had improved, there was increased use of data for disease surveillance, research, and planning, and nurses and other health professionals had more time to focus on the clinical components of their work (Mpofu et al., 2014). If such task shifting were to be scaled up, health care worker efficiency would improve and burnout would decrease.

An important, yet unexamined question is the extent to which the content of reports pertaining integrated family planning services is used to improve cost effectiveness of reproductive health services. Is integration of services worth it? Another question is the relationship between local ownership of data for decision-making and data quality. Those who collect health services data often report up the chain but do not use the data for improved patient care.

Finally, further research is needed to investigate the most effective ways to improve monitoring and evaluation systems themselves, especially in relation to integrated reproductive health programs. A study in Mozambique of a Health Management Mentorship (HMM) program to strengthen health systems in 10 rural districts analyzed change in four capacity domains after one year of the program: accounting, human resources, monitoring and evaluation, and transportation

management. All the domains except for monitoring and evaluation showed improvement over the one-year mentorship program. The authors of this study noted that challenges included constantly changing program targets and objectives, continually being in a "crisis mode" (constantly trying to catch up on reporting or needing reports in a short period of time) which did not allow time to set up efficient systems, and unavailability of key program staff due to the frequent out-of-office trainings (Edwards et al., 2015). This finding shows that monitoring and evaluation systems are difficult to improve even with the deployment of additional resources specifically for this purpose due to the inherent constraints. Implementation research to improve the functionality and sustainability of monitoring and evaluation within the health system, perhaps using a collaborative quality improvement approach, should be considered.

Programming and Policy Recommendations

Recently, the WHO published results from a five-country intervention to strengthen measurement of reproductive health indicators which aimed to improve national information systems for routine monitoring of reproductive health indicators (Barreix et al., 2017). Activities within this intervention included revising, standardizing, and making consistent the existing reproductive health indicators gathered through routine systems and building capacity in data collection methods through training and supervision in pilot sites. The country teams reorganized and updated existing monitoring and evaluation frameworks. Challenges encountered even in this focused effort included frequent changes in staffing, delays from administration such as slow response times to updating systems, and competing priorities for staff time for implementing reporting

improvements. Thus, even with focused intervention it is challenging to streamline and harmonize monitoring and evaluation systems related to reproductive health.

The main recommendations for policy and programming in the Togolese context include consolidating reproductive data for health indicators and reducing provider workload for reporting, especially reporting integrated reproductive health services. Currently the largest task of recording integrated family planning is placed on the health care workers, who have adapted health registers to capture the requested information in monthly reports, but this requires extra work, memory, and creativity on the part of the health care worker. When reporting forms are developed they must be standardized to correspond with the associated health register. The number of times the health provider must enter and re-enter data needs to be reduced.

The Togolese Ministry of Health plans to implement a DHIS2 system for health reporting by the end of 2017. The findings of this study have implications for the successful implementation of the DHIS2.

Limitations

One main limitation of the health facility assessment included that health facilities in the health facility assessment purposive sample were all affiliated with *AgirPF* and located in urban areas so that the study findings are not generalizable to non-*AgirPF* urban or rural health facilities. Another challenge is that the data are cross-sectional--collected at one point in time and therefore only provide a snapshot of the current monitoring and evaluation system. It is not possible to document how this system has changed over time. Lastly, there were challenges associated with photographing registers due to the accessibility of records and the availability of digital cameras of phones on

some days. However, photographs of available registers were purposively sampled only to illustrate the kinds of adaptations undertaken by health care workers.

Limitations of the key informant interviews included potentially not understanding all the possible perspectives of the informants, differences in the interviewer's methods for probing and what areas were focused on in each interview, and potential response bias—the study was conducted under the auspices of *AgirPF* and led by the *AgirPF* Monitoring and Evaluation Specialist.

Conclusions

Monitoring and evaluation systems are fraught with implementation challenges that affect the quality of data used in patient care, planning, and policy, especially in relation to recording integrated health services. This is a reality not only in Togo but also in other countries. There is a need for a concerted, collaborative effort on the parts of national governments and global partners to address challenges to improve the health and well-being of populations, including mothers and their children.

References

Adamchak, S. E., Okello, F. O., & Kabore, I. (2016). Developing a system to monitor family planning and HIV service integration: results from a pilot test of indicators. *J Fam Plann Reprod Health Care, 42*(1), 24-29. doi:10.1136/jfprhc-2014-101047

Atun, R., de Jongh, T., Secci, F., Ohiri, K., & Adeyi, O. (2010). Integration of targeted health interventions into health systems: a conceptual framework for analysis. *Health Policy Plan, 25*(2), 104-111. doi:10.1093/heapol/czp055

Avenir Health. (N.D.). Track20: Monitoring progress in family planning. Retrieved from http://track20.org/

Barreix, M., Tunçalp, Ö., Mutombo, N., Adegboyega, A. A., Say, L., & for the Reproductive Health Indicators, G. (2017). Experience from a multi-country initiative to improve the monitoring of selected reproductive health indicators in Africa. *International Journal of Gynecology & Obstetrics, 137*(2), 205-212. doi:10.1002/ijgo.12105

Boerma, J., & Stansfield, S. (2007). Health statistics now: are we making the right investments? *Lancet, 369*. doi:10.1016/s0140-6736(07)60364-x

Central Intelligence Agency. (2017). Togo. *The World Factbook*. Retrieved from https://www.cia.gov/library/publications/the-world-factbook/geos/to.html

Chabikuli, N. O., Awi, D. D., Chukwujekwu, O., Abubakar, Z., Gwarzo, U., Ibrahim, M., Hamelmann, C. (2009). The use of routine monitoring and evaluation systems to assess a referral model of family planning and HIV service integration in Nigeria. *AIDS, 23 Suppl 1*, S97-s103. doi:10.1097/01.aids.0000363782.50580.d8

Chan, M., Kazatchkine, M., Lob-Levyt, J., Obaid, T., Schweizer, J., Sidibe, M., Yamada, T. (2010). Meeting the demand for results and accountability: a call for action on health data from eight global health agencies. *PLoS Med, 7*(1), e1000223.

Chaulagai, C. N., Moyo, C. M., Koot, J., Moyo, H. B., Sambakunsi, T. C., Khunga, F. M., & Naphini, P. D. (2005). Design and implementation of a health management information system in Malawi: issues, innovations and results. *Health Policy Plan, 20*(6), 375-384.

Chilundo, B., & Aanestad, M. (2005). Negotiating multiple rationalities in the process of integrating the information systems of disease specific health programmes. *The Electronic Journal of Information Systems in Developing Countries, 20*.

Chilundo, B., Sundby, J., & Aanestad, M. (2004). Analysing the quality of routine malaria data in Mozambique. *Malaria Journal, 3*(1), 3.

Edwards, L. J., Moisés, A., Nzaramba, M., Cassimo, A., Silva, L., Mauricio, J., . . . Moon, T. D. (2015). Implementation of a health management mentoring program: year-1 evaluation of its impact on health system strengthening in Zambézia Province, Mozambique. *International Journal of Health Policy and Management, 4*(6), 353-361. doi:10.15171/ijhpm.2015.58

Family Planning High Impact Practices. (2017). *Family Planning High Impact Practices List*. Retrieved from https://www.fphighimpactpractices.org/sites/fphips/files/hiplist_eng.pdf

Fikree, F., Murgore, S., & Forrester, H. (2014). *Strengthening Postabortion family planning in Togo, Mobilizing Resources*. Retrieved from Washington D.C.: http://www.e2aproject.org/publication/strengthening-postabortion-family-planning-in-togo/

Garrib, A., Stoops, N., McKenzie, A., Dlamini, L., Govender, T., Rohde, J., & Herbst, K. (2008). An evaluation of the District Health Information System in rural South Africa. *South African Medical Journal, 98*.

Gourlay, A., Wringe, A., Todd, J., Michael, D., Reniers, G., Urassa, M., Zaba, B. (2015). Challenges with routine data sources for PMTCT programme monitoring in East

Africa: insights from Tanzania. *Glob Health Action, 8*, 29987. doi:10.3402/gha.v8.29987

Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. Los Angeles: Sage Publications.

Huber, D., Curtis, C., Irani, L., Pappa, S., & Arrington, L. (2016). Postabortion Care: 20 Years of Strong Evidence on Emergency Treatment, Family Planning, and Other Programming Components. *Global Health: Science and Practice, 4*(3), 481-494. doi:10.9745/ghsp-d-16-00052

IBM Corp. (2013). IBM SPSS Statistics for Windows, Version 22.0 Released 2013. Armonk, New York: IBM Corp.

Igira, F. T. (2012). The dynamics of healthcare work practices: Implications for health management information systems design and implementation. *Management Research Review, 35*(3/4), 245-259.

International Federation of Gynecology and Obstetrics (FIGO), International Confederation of Midwives (ICM), International Council of Nurses (ICN), United States Agency for International Development (USAID), White Ribbon Alliance (WRA), D. f. I. D. D., & Foundation, B. a. M. G. (2013). *Post abortion family planning: A key component of post abortion care*. Retrieved from Washington D.C.: https://www.glowm.com/pdf/PAC-FP-Joint-Statement-November2013-final_printquality.pdf

Jacucci, E., Shaw, V., & Braa, J. (2006). Standardization of health information systems in South Africa: The challenge of local sustainability. *Information Technology for Development, 12*(3), 225-239.

Kawonga, M., Blaauw, D., & Fonn, S. (2012). Aligning vertical interventions to health systems: a case study of the HIV monitoring and evaluation system in South Africa. *Health Research Policy and Systems, 10*(1), 2. doi:10.1186/1478-4505-10-2

Kimaro, H. C., & Twaakyondo, H. (2005). Analysing the hindrance to the use of information and technology for improving efficiency of health care delivery system in Tanzania. *Tanzania Journal of Health Research, 7*(3), 189-197.

Ledikwe, J. H., Grignon, J., Lebelonyane, R., Ludick, S., Matshediso, E., Sento, B. W., . . . Semo, B. W. (2014). Improving the quality of health information: a qualitative assessment of data management and reporting systems in Botswana. *Health Res Policy Syst, 12*, 7. doi:10.1186/1478-4505-12-7

Lim, S. S., Stein, D. B., Charrow, A., & Murray, C. J. (2008). Tracking progress towards universal childhood immunisation and the impact of global initiatives: a systematic analysis of three-dose diphtheria, tetanus, and pertussis immunisation coverage. *The Lancet, 372*(9655), 2031-2046.

Mate, K. S., Bennett, B., Mphatswe, W., Barker, P., & Rollins, N. (2009). Challenges for routine health system data management in a large public programme to prevent mother-to-child HIV transmission in South Africa. *PloS one, 4*(5), e5483. doi:10.1371/journal.pone.0005483

Microsoft. (2013). Word. Redmond, Washington: Microsoft.

Ministère de la santé Republique du Togo (2013). *Plan d'Action pour le Repositionnement de la Planification Familiale au Togo*. Retrieved from Lomé, Togo: http://ec2-54-210-230-186.compute-1.amazonaws.com/wp-

content/uploads/2014/12/Plan_National_de_Repositionnement_de_la_PF_TOGO.pdf

Mphatswe, W., Mate, K., Bennett, B., Ngidi, H., Reddy, J., Barker, P., & Rollins, N. (2012). Improving public health information: a data quality intervention in KwaZulu-Natal, South Africa. *Bulletin of the World Health Organization, 90*(3), 176-182.

Mpofu, M., Semo, B. W., Grignon, J., Lebelonyane, R., Ludick, S., Matshediso, E., . . . Ledikwe, J. H. (2014). Strengthening monitoring and evaluation (M&E) and building sustainable health information systems in resource limited countries: lessons learned from an M&E task-shifting initiative in Botswana. *BMC public health, 14*, 1032. doi:10.1186/1471-2458-14-1032

Mugore, S., Kassouta, N. T., Sebikali, B., Lundstrom, L., & Saad, A. (2016). Improving the Quality of Postabortion Care Services in Togo Increased Uptake of Contraception. *Glob Health Sci Pract, 4*(3), 495-505. doi:10.9745/ghsp-d-16-00212

Nash, D., Elul, B., Rabkin, M., Tuns, M., Saito, S., Becker, M., & Nuwagaba-Biribonwoha, H. (2009). Strategies for more effective monitoring and evaluation systems in HIV programmatic scale-up in resource-limited settings: implications for health systems strengthening. *J Acquir Immune Defic Syndr, 52*. doi:10.1097/QAI.0b013e3181bbcc45

NCH Software. (2014). Express Scribe. Greenwood Village, CO: NCH Software, Inc.

Nvivo qualitative data analysis Software. (2015). NVivo qualitative data analysis Software (Version 11): QSR International Pty Ltd.

Organization, W. H. (2010). *Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies*: World Health Organization Geneva.

PAC-FP EngenderHealth. (2016). *PAC-FP Service Availability and Readiness Assessment*.

Pleah, T., Hyjazi, Y., Austin, S., Diallo, A., Dao, B., Waxman, R., & Karna, P. (2016). Increasing Use of Postpartum Family Planning and the Postpartum IUD: Early Experiences in West and Central Africa. *Glob Health Sci Pract, 4 Suppl 2*, S140-152. doi:10.9745/ghsp-d-16-00039

Republique du Senegal, Measurement, L., & Evaluation Project, , Global Research and Advocacy Group, & Initiative Senegalaise de Sante Urbaine. (2015). Enquete Finale au Niveau des Structures de Sante 2015. Dakar: Urban Reproductive Health Initiative.

Ronveaux, O., Rickert, D., Hadler, S., Groom, H., Lloyd, J., Bchir, A., & Birmingham, M. (2005). The immunization data quality audit: verifying the quality and consistency of immunization monitoring systems. *Bulletin of the World Health Organization, 83*(7), 503-510.

Spaulding, A. B., Brickley, D. B., Kennedy, C., Almers, L., Packel, L., Mirjahangir, J., Mbizvo, M. (2009). Linking family planning with HIV/AIDS interventions: a systematic review of the evidence. *AIDS, 23 Suppl 1*, S79-88. doi:10.1097/01.aids.0000363780.42956.ff

Thiam, S., Kimotho, V., & Gatonga, P. (2013). Why are IPTp coverage targets so elusive in sub-Saharan Africa? A systematic review of health system barriers. *Malaria Journal, 12*(1), 353.

United States Agency for International Development (USAID), Australia AID, World Health Organization, UNFPA, Bill and Melinda Gates Foundation, UKaid, . . . Save the Children. (2013). *Statement for Collective Action for Postpartum Family Planning*. Retrieved from http://www.who.int/reproductivehealth/topics/family_planning/Statement_Collective_Action.pdf

University of Oslo, N., The Research Council of Norway, PEPFAR, The Global Fund. (2017). DHIS2. Retrieved from http://www.dhis2.org

Wisniewski, J. M., Yeager, V. A., Diana, M. L., & Hotchkiss, D. R. (2016). Exploring the barriers to rigorous monitoring and evaluation of health systems strengthening activities: qualitative evidence from international development partners. *The International Journal of Health Planning and Management, 31*(4), e302-e311. doi:10.1002/hpm.2339

World Health Organization. (2003). *Improving Data Quality: A Guide for Developing Countries*. Geneva: WHO Press.

World Health Organization. (2013). *Human Reproduction Programme. Statement for collective action for postpartum family planning*. Retrieved from Geneva: http://www.who.int/reproductivehealth/publications/family_planning/statmt_ppfp/en/

World Health Organization, USAID, & Maternal and Child Health Integrated Program. (2013). *Programming strategies for postpartum family planning* (9241506490). Retrieved from Geneva: http://apps.who.int/iris/bitstream/10665/93680/1/9789241506496_eng.pdf

Chapter 4: Barriers and facilitators of family planning integrated into postabortion and postpartum care in urban areas of Togo

Abstract

Integrated family planning into postabortion and postpartum care are well-established interventions to increase family planning uptake. This article describes research completed by EngenderHealth's *AgirPF* project in three urban areas of Togo on the capacity of the health system to provide family planning integrated into postabortion and postpartum care, and factors that facilitate or impede the integration of family planning into these services. It then highlights the implications of these factors for programming and policy. This mixed methods case study used 41 key informant interviews with health faculty, individuals working at reproductive health organizations, individuals involved in reproductive health politics, health care workers, and health facility directors; 25 health facility assessments in hospitals, large community clinics, a dispensary, and private clinics; and participant observation. The study found barriers to provision and use of postabortion and postpartum family planning included a lack of training for health care workers, lack of necessary equipment, especially sterilization equipment, high levels of mistrust related to family planning methods, a strong cultural desire for having children, and limited understanding of the health benefits of spacing pregnancies, especially following a spontaneous abortion. Facilitators of integrated family planning included more health care worker training, providing more family planning education to the population, and ensuring all necessary equipment and supplies were available and functional. Future research should focus on gaining understanding about the cultural and religious barriers to postabortion and postpartum family planning, developing and testing service delivery models for family planning, postabortion family

planning, and postpartum family planning. Recommendations for future policy and programming include increasing access to mass media and include educational content on the benefits of family planning and birth/pregnancy spacing along with information about its availability. In addition, health care workers need to receive consistent and comprehensive training about family planning and family planning integrated into other reproductive health care services.

Introduction

It is estimated that between 66% and 85% of maternal, newborn, and child (under 5 years) deaths in Africa could be avoided by implementing evidence-based interventions (Whitworth, Sewankambo, & Snewin, 2010). Family planning integrated into maternal child health services in facilities and in the community has been shown to increase family planning uptake and access (Cleland, Shah, & Daniele, 2015; High Impact Practices in Family Planning (HIP), 2012; Huber, Curtis, Irani, Pappa, & Arrington, 2016; Iqbal H. Shah, Santhya, & Cleland, 2015). Further, about 90% of abortion-related morbidity could be reduced by using effective contraception; when effective contraceptive methods are used widely and available, the total abortion rate declines (Bongaarts & Westoff, 2000; Cleland et al., 2006). Family planning could prevent over 30% of maternal deaths and 10% of child deaths if pregnancies were spaced more than two years apart (Cleland et al., 2006).

Postabortion care (PAC) is comprised of three components, 1) emergency treatment for complications of spontaneous or induced abortion, 2) family planning counseling and service provision, evaluation and treatment of sexually transmitted infections and HIV counseling and testing; and 3) community empowerment through

community awareness and mobilization (United States Agency for International Development (USAID), 2004). The Family Planning High Impact Practices Technical Advisory Group has named postabortion family planning (PAC-FP) as one of a small selection of proven high-impact practices which can maximize investments in comprehensive family planning strategy (High Impact Practices in Family Planning (HIP), 2012; United States Agency for International Development (USAID), 2011). Postpartum family planning (PPFP) is the prevention of unintended and/or closely spaced pregnancies in the period following childbirth. This is the period, usually considered 12-24 months, when closely spaced pregnancy can lead to the greatest risk for the mother and infant (Conde-Agudelo, Rosas-Bermudez, Castano, & Norton, 2012). It is also a period of increased contact with health care professionals (United States Agency for International Development (USAID) et al., 2013).

Interest in family planning integrated into PAC and postpartum care has increased since the signing in 2013 of the *Consensus Statement on Post Abortion Family Planning (International Federation of Gynecology and Obstetrics (FIGO) et al., 2013)* and the *Statement for Collective Action for Postpartum Family Planning (World Health Organization, 2013).* It is well established that integration of family planning into these reproductive health services is highly successful in improving family planning uptake. Thus, it is important to understand the barriers and facilitators to successful integration to develop these programs on a larger scale.

Atun et al (2010) developed the *Integration of targeted health interventions into health systems* conceptual framework that can be used for mapping the nature and extent of integration of health interventions into existing services. The framework includes

factors that influence the integration process including defining 1) the health problem, 2) the intervention, 3) the adoption system, which consists of the values, interests, and power dynamics between key stakeholders, 4) health system characteristics, which involves governance, financing, planning, service delivery, monitoring and evaluation, and demand generation, and 5) the broad context of cultural, economic, and demographic factors (Atun et al., 2010). This framework can be used to examine which aspects act as barriers and/or facilitators to integration.

Researchers have described health system barriers to PAC-FP and PPFP such as limited resources and space, long wait times, and limited contraceptive counseling, as well as health facilitators including relevant health worker training, contraceptive method availability, and dedicated space and personnel for providing integrated family planning services (Table 4.1). The adoption system and broad context-related barriers to PAC-FP and PPFP such as misconceptions about family planning methods and reproductive biology, male disapproval, cultural and religious objections, and side effects of contraceptive methods, and facilitators including the woman having a supportive male partner, seeking other health services, and higher levels of education, and for health care workers, providing community education related to the benefits of using PAC-FP and PPFP.

Table 4.1: Previous research on barriers and facilitators of PAC-FP and PPFP care by factor type.

	Barriers to PAC-FP	**Facilitators to PAC-FP**	**Barriers to PPFP**	**Facilitators to PPFP**
Health care system	• Limited physical access to a range of contraceptive methods (Gallo et al., 2004; McCarraher et al., 2010; Rocca et al., 2014; Tesfaye & Oljira, 2013) • Limited comprehensive contraception counselling (Arambepola, Rajapaksa, & Galwaduge, 2014; McCarraher et al., 2010; Nguyen, Gammeltoft, & Rasch, 2007; Rocca et al., 2014; Tavrow, Withers, & McMullen, 2012) • Patient overcrowding (David, Reichenbach, Savelieva, Vartapetova, & Potemkina, 2007) • Inadequate space and privacy (Arambepola et al., 2014; Rocca et al., 2014)	• Effective contraceptive counselling in PAC, including at the same time and location as PAC treatment with accessible family planning supplies (High Impact Practices in Family Planning (HIP), 2012; Kestler, Valencia, Del Valle, & Silva, 2006; I. H. Shah, Ahman, & Ortayli, 2014; Tripney, Kwan, & Bird, 2013) • Increasing the method mix availability (Huber et al., 2016; Johnson, Ndhlovu, Farr, & Chipato, 2002); • Providing all contraceptive methods free of charge (David et al., 2007; Ferreira, Souza, Pessoa, & Braga, 2011; Johnson et al., 2002; Kestler et al., 2006; Zhu et al., 2009) • Training health care providers in family planning counseling, service delivery, and manual vacuum aspiration (MVA) (Benson & Huapaya, 2002; Dabash, Diagne, & Ndong, 2003; Solo, Billings, Aloo-Obunga, Ominde, & Makumi, 1999; Zhu et al., 2009) • Continuing education in family planning counseling skills, job aids for health care providers, and educational materials for patients (David et al., 2007; Stolarsky, Peshkatari, & Charurat, 2010)	• High cost of contraceptives (Pleah et al., 2016) • Long wait times before clinic visits (Marlow, Maman, Moodley, & Curtis, 2014) • Low antenatal care coverage (JHPIEGO, Maternal and Child Health Integrated Program, & USAID, 2011) • Unwelcoming health care providers (Marlow et al., 2014)	• Providing a nurse who only works in the family planning aspect of care (Marlow et al., 2014) • Having a separate space for family planning service delivery to access and use of postpartum family planning (Marlow et al., 2014)
Adoption system and broad context	• Extended absence by a women's husband (Becker, Diaz Olavarrieta, Garcia, & Harper, 2013) • Misconceptions about contraceptive methods (Tavrow et al., 2012), • Sexual inactivity (Becker et al., 2013) • Being an adolescent (McCarraher et al., 2010; Tavrow et al., 2012) • Low levels of knowledge and training in PAC/PAC-FP (Becker et al., 2013; Evens et al., 2014) • Socio-cultural insensitivity (Arambepola et al., 2014; Becker et al., 2013; Evens et al., 2014; Nguyen et al., 2007) • Attitudes of health care workers towards women accessing PAC, especially in countries with restrictive abortion laws (McCarraher et al., 2010)	• Husbands being involved in family planning counseling (Abdel-Tawab, Huntington, Hassan, Youssef, & Nawar, 1999) • Providing education to the community about dangers signs related to pregnancy and encouraging health seeking behaviors (Wickstrom, Russell, & Escandon, 2008)	• Postpartum women having intolerable side effects from the family planning method (Imbuki, Todd, Stibich, Shaffer, & Sinei, 2010; Marlow et al., 2014) • Cultural and religious objections and misunderstandings related to family planning methods (Robinson et al., 2016) and reproductive biology (Keogh et al., 2015; Marlow et al., 2014) • Partner disapproval which leads to women's loss to follow up or discontinuation of the family planning method upon the discovery of the husband (Keogh et al., 2015; Pleah et al., 2016)	• Older age (Rutaremwa et al., 2015; Winfrey & Rakesh, 2014) • Increased desire to space or limit births (Winfrey & Rakesh, 2014) • Urban residence (Winfrey & Rakesh, 2014) • Higher education (Gebreselassie, Rutstein, & Mishra, 2008; Sileo, Wanyenze, Lule, & Kiene, 2015) • Exposure to family planning (FP) in the media (Rutaremwa et al., 2015) • Agreement of male partner on reproductive matters (Bwazi, Maluwa, Chimwaza, & Pindani, 2014; Eliason et al., 2013; Sileo et al., 2015) • Using antenatal care (Adanikin, Onwudiegwu, & Loto, 2013; Omu et al., 1989; Winfrey & Rakesh, 2014), giving birth in a health facility (Hounton, Winfrey, Barros, & Askew, 2015; Rutaremwa et al., 2015; Saeed, Fakhar, Rahim, & Tabassum, 2008; Sayegh & Mosley, 1976; Winfrey & Rakesh, 2014) • Having a postpartum checkup (Winfrey & Rakesh, 2014) • Accessing immunization services for children (Hounton et al., 2015)

One of the first intervention studies of integrated family planning into vaccination services took place in Togo in the 1990s. The researchers found an increase in uptake of family planning by using messages to mothers on the benefits of family planning as part of the infant vaccination and informing the mothers of on-site services avaiaiblity (Huntington & Aplogan, 1994). In 2008, representatives from the Togolese Ministry of Health participated in the *Best Practices to Scale up PAC for Lasting Impact* in Senegal and developed a program to improve PAC uptake with stakeholders (Fikree, Murgore, & Forrester, 2014). A 2012 assessment of the four participating facilities revealed that while staffs were trained and committed to providing PAC services, a lack of equipment in the facilities hindered their ability to reliably offer services. Since 2012, a number of international non-governmental organizations (NGOs) have conducted trainings and supported integration of family planning into PAC (Agir pour la Planification Familiale, 2016; Akpadza, 2016a; Evidence to Action, USAID, & Agir pour la Planification Familiale (AgirPF), 2016) and postpartum services in Togo (Akpadza, 2016b; Deglo, 2016; Pleah et al., 2016).

In 2013, *Agir pour la planification familial (AgirPF*), a 5-year USAID/West Africa project (2013-2018) was launched by EngenderHealth and the Togolese Ministry of Health with the goal to increase access to family planning, with interest in the integration of family planning into PAC and postpartum services. *AgirPF* was implemented in the urban and peri-urban areas of five West African countries: Burkina Faso, Cote d'Ivoire, Mauritania, Niger, and Togo.

In 2014, Togo made commitments for the *FP2020 Movement* to increase the contraceptive prevalence rate from 13.2 in 2010 to 24.3 in 2017 through promises to

implement the 2007 reproductive health law, scale up best practices in reproductive health and family planning, which included integrated family planning (Family Planning 2020, 2014). Integrated family planning is highlighted as a strategy in reproductive health guidance documents and interventions to improve reproductive health outcomes in Togo (Agir pour la Planification Familiale (AgirPF), N.D.; Division de la Sante Familiale, EngenderHealth, USAID, & Agir pour la Planification Familiale (AgirPF), 2014; Ministère de la santé et de la protection sociale, 2015, 2017; Ministère de la santé et de la protection sociale, Ministere des enseignements primaire secondaire et de la formation professionnelle, administrative, & Sokodé, 2016; Mugore, Kassouta, Sebikali, Lundstrom, & Saad, 2016; Ntapi, N.D.; Republique du Togo, CEDEAO/ECOWAS, USAID, & EngenderHealth, 2016; Togo, 2015; Ministere de la sante et de la protection sociale Repbulique Togolaise, 2015; Ministere de la sante et de la protection sociale Republique Togolaise, 2016).

With this momentum towards increasing integrated family planning in Togo, it is important to understand the current barriers and facilitators to implementing integrated programs. In this paper, we describe the factors that facilitate and impede the integration of family planning into PAC and PPFP in three urban areas of Togo. We then discuss the implications of these for programming and policy. We defined a barrier as something that currently exists that prevents demand or service provision. Addressing these requires an intervention. We defined a facilitator as something that currently exists, or could be introduced, to increase demand or make service provision possible. Most facilitators were factors that the informants had seen work to improve access to family planning and other

health services. The paper is based on research that was conducted as part of a larger case study completed by EngenderHealth's *AgirPF* in April-August 2016.

Methods

Study design

This descriptive case study took place between July-August 2016 using multiple research methods including key informant interviews, health facility assessments and participant observation. Atun et al.'s *Integration of targeted health interventions into health systems conceptual framework* (Atun et al., 2010) guided the development of the data collection materials and the analysis of health program integration.

Setting

This study took place in Lomé (pop. 956,000), Sokodé (pop. 114,800), and Kara (pop. 110,900), the three largest urban areas in Togo (Central Intelligence Agency, 2017). *AgirPF* lead this project in partnership with the Togolese Ministry of Health; Schools of Midwifery, Nursing, Assistant Nursing/Midwifery, and Medicine; NGOs/international organizations, and health facilities in the study areas. Prior to data collection for this study (February-June 2016), *AgirPF* initiated the integration of family planning with the training of health care workers at 35 of the health facilities in PAC/PAC-FP, and health care workers at seven of the health facilities in postpartum intrauterine device (PPIUD) insertion. The first author worked as the principal investigator of this study while working as the Monitoring and Evaluation/Research Specialist on the *AgirPF* Togo project.

Procedures

Health facility assessment

The sample included 25 purposively selected health facilities affiliated with *AgirPF* including university hospitals (n=2), regional hospitals (n=3), district hospitals (n=5), large community health facilities (n=9), a health dispensary (n=1), and private clinics (n=5).

For the assessment, we adapted the EngenderHealth "*PAC-FP Service Availability and Readiness Assessment"* (PAC-FP EngenderHealth, 2016) and ISSU "*Enquete Finale au Niveau des Structures de Sante 2015"(Republique du Senegal, Measurement, Global Research and Advocacy Group, & Initiative Senegalaise de Sante Urbaine, 2015).* The adapted guide contained 194 open and closed-ended questions. For this paper, we focus on a sub set of 112 questions designed to elicit information about the number of health care providers and division of labor for reproductive and sexual health care by type of health facility; reproductive and sexual health care provision by type of health care worker; health care worker training for family planning, PAC, and postpartum care; availability of different reproductive and sexual health care services; provision of family planning as part of other reproductive health services; equipment availability; different family planning method availability during PAC; and health care statistics about family planning, PAC, PAC-FP, postpartum, and immunization services in the three months prior to the assessment.

It also included a set of hypothetical questions about whether a woman who wanted family planning when she came for another reproductive health service would receive information about family planning or receive a hormonal, long acting, or permanent method of family planning. The responses included: always receive same day,

sometimes receive same day, get an appointment for another day, told to come back another day (no appointment), referred to another service, no information or service, the family planning service is not available anywhere, and other.

The trained data collection team comprised of four midwives and two nurses from the Demographic Research Unit conducted in person at the chosen health facilities. They spoke with a staff member who had been designated by the director of the health facility to participate in the assessment. Questions were answered by other staff members if the assigned staff members was unable to answer. The data collectors wrote the responses to the health facility assessment questions in designated boxes and circling corresponding response choices according to the responses given by the health facility staff member. The dialogs between the health facility staff member and the data collector were not audio recorded. The first author accompanied the data collectors on six health facility assessments. The assessments took, on average, three hours to complete.

Every evening, the first author reviewed the completed assessments for complete and intelligible data, and instructed the data collectors to return to the facilities in the event of incomplete or unintelligble data. Responses to closed ended questions were entered into SPSS 24 (IBM Corp, 2013) software by the statistical assistant at the Demographic Research Unit for cleaning and analysis. The first author compiled the responses from the open-ended questions in tables in MS Word (Microsoft, 2013).

We used descriptive statistics to examine health facility staff characteristics; health worker training in family planning, PAC and postpartum care provision; service availability, including family integrated into other health services; and equipment availability. We compared hcalth worker training by family planning, PAC/PAC-FP, and

PPIUD insertion service provision to understand fit of worker to job. We examined equipment availability to assess whether the environment was enabling of family planning provision. Data into MS word included information about why health facilities were not able to provide certain PAC-FP contraceptive types.

In-depth interviews

We obtained a purposive sample of n=41 total respondents from diverse professional roles within the Ministry of Health, academic institutions, NGOs/international organizations, and health services. These included faculty at schools of medicine, nursing, and midwifery (n= 3); directors and health workers in health services (n=9 and n=14, respectively); individuals working at reproductive health NGOs/international organizations (n=9); and those involved in reproductive health politics (n=7). The sample diversity was intended to elicit a variety of perspectives on reproductive health care from individuals with varying degrees of contact with the *AgirPF* program activities and trainings related to integrated family planning services. *AgirPF* recruited respondents through official collaborations with the Togolese Ministry of Health, other reproductive health NGOs, and health facilities.

We developed and pretested five semi-structured interview guides appropriate to the type of respondent. The guides each included questions for respondents about multiple areas of family planning and integrated family planning in urban Togo. The health faculty were asked additional questions about topics covered during initial health care worker training both didactic and clinical as well as continuing education. For this paper, we focus on questions pertaining to the training of health care providers in family planning methods, PAC, postpartum care; the integration of family planning into

reproductive and child other health services; and perceived barriers and facilitators to family planning, PAC-FP, and PPFP.

The first author and five Togolese social scientists from the Demographic Research Unit, conducted the face-to-face audiotape recorded interviews in French at a time and location chosen by the respondents, usually a private area at their place of work, and took from 30 to 150 minutes to complete. Interview recordings were transcribed verbatim in French by the Togolese social scientists using Express Scribe software version 5.000 (NCH Software, 2014) and then copied into MS Word 2013 (Microsoft, 2013).

Interview transcripts were entered into Nvivo 11 for analysis (Nvivo qualitative data analysis Software, 2015). The first author, with the help of Togolese social scientists, developed initial codes and an initial codebook. The main codes were based on the major topics of the interview guides. The first author then coded all transcripts using the codebook and applied thematic analysis (Guest, MacQueen, & Namey, 2012), an inductive set of procedures which aims to identify and examine themes from textual data in a way which is transparent. She created matrices in Nvivo to understand the intricacies of responses by participant type related to barriers and facilitators of family planning, PAC, and postpartum care. Transcripts were then re-read for further understanding of themes identified and quotes were chosen to further illustrate selected themes.

Ethical review and informed consent

The study was approved by the Institutional Review Board at Emory University, the EngenderHealth Knowledge Management, Monitoring and Evaluation, and Research

team, and the Togolese Ministry of Health *Comité de Bioéthique pour la Recherche en Santé (CBRS)*. Data were collected only after written informed consent was taken using standard disclosure procedures.

Results

The results section is divided into two parts – first the results from the health facility assessments, followed by the results form the key-informant interviews.

Health facility Assessment

Health facility characteristics

The 25 health facilities had opened between 1945 and 2011, with seven having been opened since 2007. All but two facilities were open seven days a week, 24 hours a day; two were open 6 days a week for twelve hours per day. Midwives made up 35 percent of heath care workers providing reproductive and sexual health services, followed by assistant nurses and midwives (Figure 4.1).

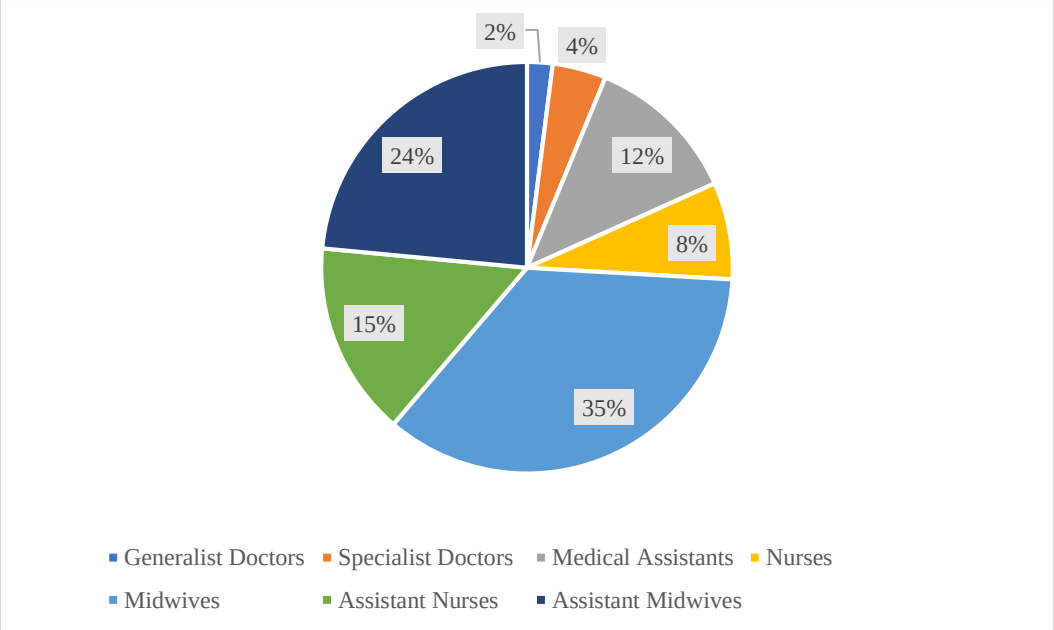


Figure 4.1: Health care provider mix for reproductive and sexual health services.

All generalist doctors had received training in family planning, PAC, and PPIUD insertion, most often during medical school and subsequent continuing education (Figure 4.2). Similarly, most specialist doctors, such as obstetricians/gynecologists, also had received training in all three areas. For physician assistants, midwives, and nurses, training was not universal and the type of training varied. Most assistant nurses/midwives received their training on the job.

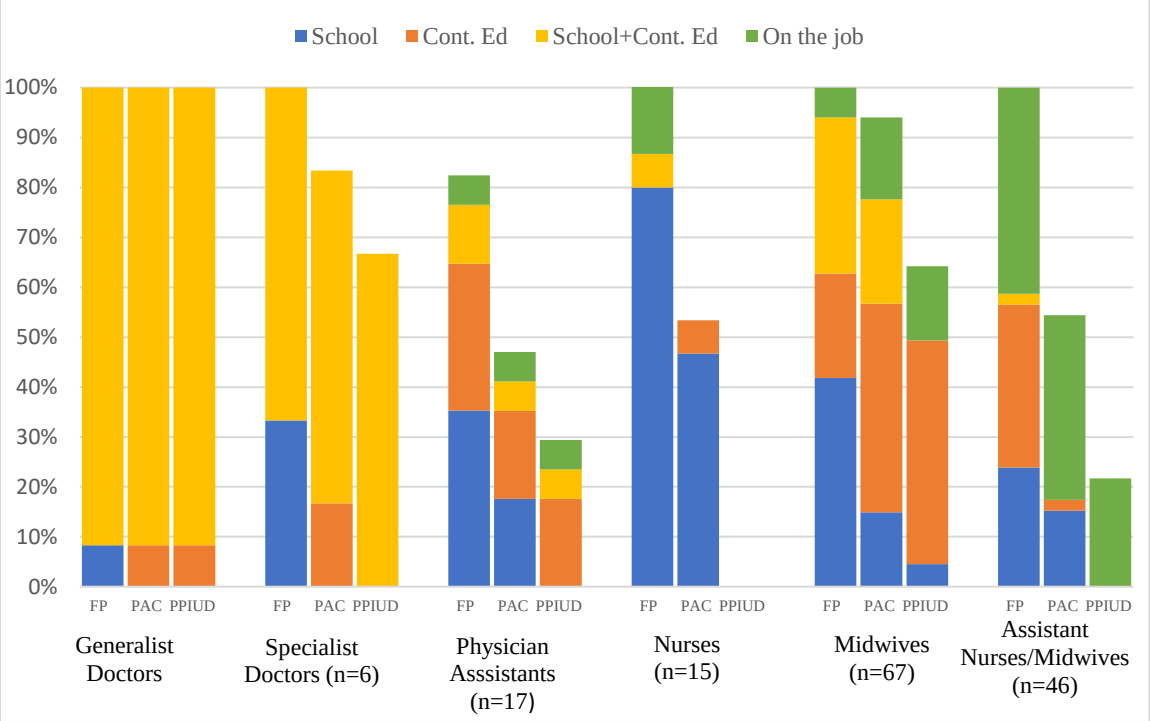


Figure 2.2: Type of training for FP, PAC, and PPIUD by provider category.

Doctors and nurses most often provided child health care; midwives and assistant nurses/midwives most often provided maternal health care; and specialist doctors and midwives generally provided sexually transmitted infections and HIV care (Table 4.2). Compared with the other types of providers, midwives most often provided family planning followed by specialist doctors and assistant nurses and midwives. Overall, 51%

of health care workers provided PAC and 56% provided PPFP, with doctors and midwives most frequently providing these services.

Table 4.2: Percent of surveyed health workers service provision

	Doctors (n=11) %	Specialist Doctor (n=6) %	Assistant Medical (n=17) %	Nurse (n=15) %	Midwife (n=66) %	Midwifery/ nurse Aide (n=45) %	Total (n=160) %
Child health	91	17	41	71	43	46	48
Maternal Health services	91	83	77	40	97	96	88
STI/HIV care	10	83	53	20	82	60	68
Family planning	25	67	41	27	93	63	67
PAC	100	67	29	7	79	18	51
PPFP	91	67	35	7	67	53	56

Capacity of facilities for FP, PAC, and PPFP

Labor and delivery was available 24 hours a day at all the public health facilities and PAC was available 24 hours a day in all hospitals, but not in community clinics or the private facilities (Figure 4.3). Family planning was offered 24 hours a day at all university and regional hospitals. Private facilities were least likely to be open 24 hours a day.

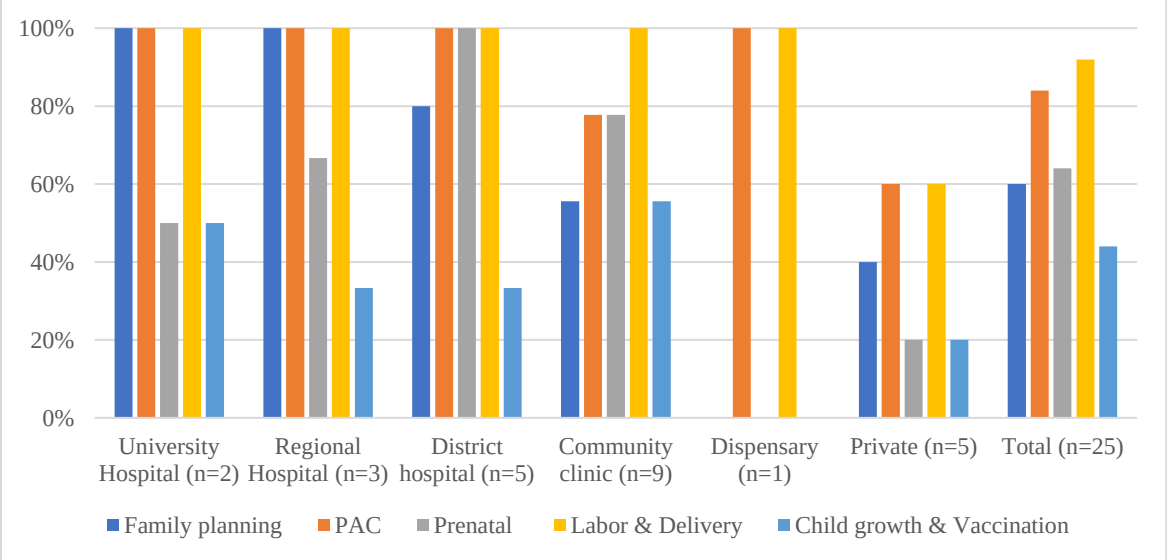


Figure 4.3: Services available 24 hours a day by facility type.

Most of the clinics had adequate cleaning supplies, antiseptic, disposable gloves, speculums, tenaculums, and plastic buckets (Table 4.3). Twenty facilities had manual vacuum aspirators (MVA) for PAC but only eight had curettes. Sterilization equipment and personal protective equipment most often missing. Twenty-one of the health facilities had the required equipment to provide surgical PAC and 20 had the required equipment for PPIUD insertion.

Table 4.3: Availability of functional supplies by health facility type.

	University Hospital (n=2) %	**Regional Hospital** (n=3) %	**District Hospital** (n=5) %	**Community clinic** (n=9) %	**Dispensary** (n=1) %	**Private** (n=5)%	**Total** (n=25)%
Cleaning							
Cleaning supplies	100	67	100	100	100	100	96
Antiseptic	100	100	100	100	100	100	100
Bucket with lid	100	67	80	100	100	100	92
Large bucket	50	33	100	100	100	100	88
Sterilization							
Dry heat sterilizer	100	33	100	89	0	60	76
Autoclave	0	0	20	11	0	40	16
Pressure cooker	0	0	0	44	0	33	24
Personal Protective Equipment							
Disposable gloves	100	100	100	100	100	100	100
Plastic Aprons	100	33	100	89	100	100	88
Goggles	50	0	0	22	0	60	24
Boots	100	33	20	33	100	40	40
Head cover	100	0	20	56	100	80	52
Vaginal speculum							
Small	50	100	100	100	100	100	96
Medium	50	67	100	100	100	100	92
Large	50	67	100	100	0	100	88
PAC							
MVA	50	67	80	89	0	100	80
Curette	50	0	40	22	100	40	32
Tenaculum	50	100	100	100	100	100	96
PPIUD/IUD							
Long placental forceps	100	67	100	78	100	60	80
Uterine sound	50	33	40	67	100	80	60

All but one health facility provided PAC services (Table 4.4). Manual vacuum aspiration (MVA) was most common type of PAC method, followed by misoprostol, and then curage (a finger used to clear uterine contents) or curettage. Protocols were available in 18 of the health facilities. At least one facility in each category offered all three methods. Most of the facilities (88%) offered PAC services 24 hours a day / 7 days a week.

Table 4.4: PAC service type and availability.

	University Hospital n=2	**Regional Hospital** n=3	**District Hospital** n=5	**Community clinic** n=9	**Dispensary** n=1	**Private** n=5	**Total** n=25
PAC Protocol (%)	50	67	80	67	100	80	72
Curage/Curettage (% facilities)	50	33	80	13	100	20	38
Availability	24/7	24/7	24/7: 3 12/7: 1	24/7	24/7	24/7	24/7: 8 12/7: 1
# Patients April-June 2016	0	8	0	5	0	4	17
MVA (% facilities)	100	100	100	89	100	100	96
Availability	24/7	24/7	24/7:3 12/7:1 Other:1	24/7:7 Other: 1	24/7	24/7: 4 12/5: 1	24/7:20 12/7:1 12/5:1
# Patients April-June 2016	96	37	20	41	0	23	217
Misoprostol (% facilities)	100	67	60	75	100	80	75
# Patients April-June 2016	8	22	7	0	1	16	54

Evidence of integration of FP into PAC and FFFP

Information about family planning was given at all prenatal appointments and during PAC and postpartum care. Hormonal methods were available in over 95% of facilities as part of infant health, postpartum, PAC, and HIV/STI care. Long-acting methods were available in 80% to 96% of facilities during other health services.

Permanent methods were only available at university and regional hospitals. Women could not receive a family planning method during prenatal care visits (Figure 4.4).

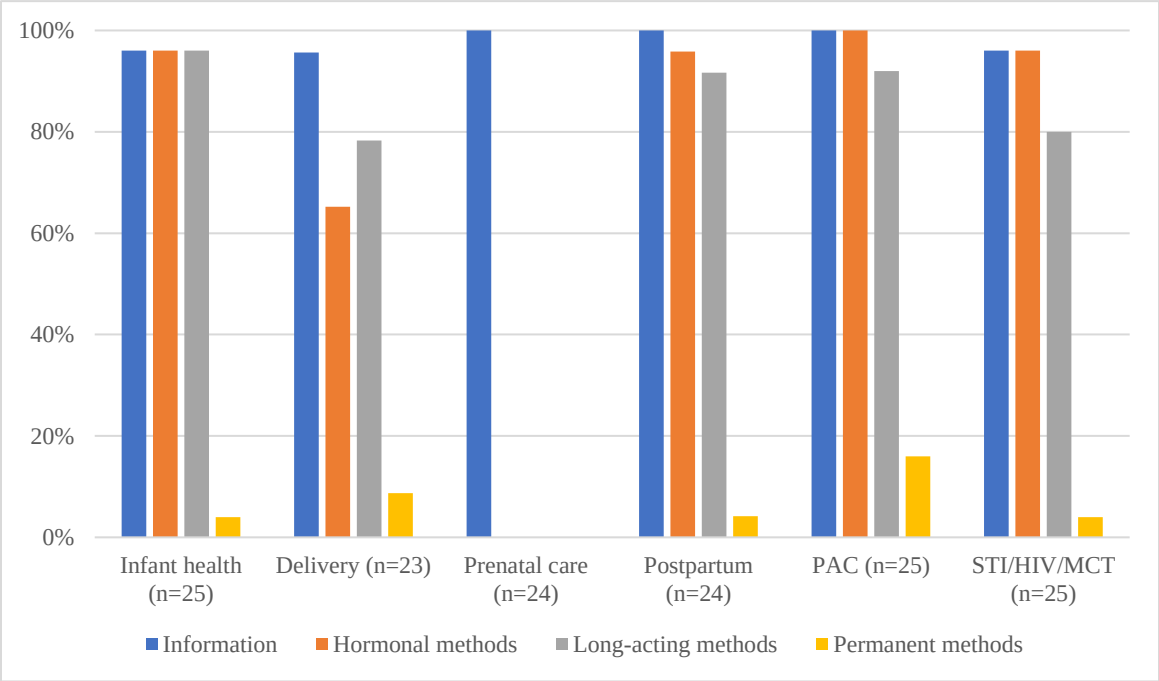


Figure 4.4: Percent of facilities that "always provide family planning with other service."

Informants reported that they offered family planning as part of PAC in over 80% of cases, regardless of the type of PAC method used (Figure 4.5). The most common family planning methods offered were pills and injectable methods, followed by longer acting methods and then condoms. Reasons for not providing a family planning method as part of PAC included either a trained provider was unavailable (2 facilities) or family planning commodity was unavailable (4 facilities). Other reasons for not providing family planning with PAC services included family planning methods not being available in the area performing PAC (the family planning supplies were locked in another area and the provider did not have the key) or that the room of PAC was not adapted for inserting long-acting methods.

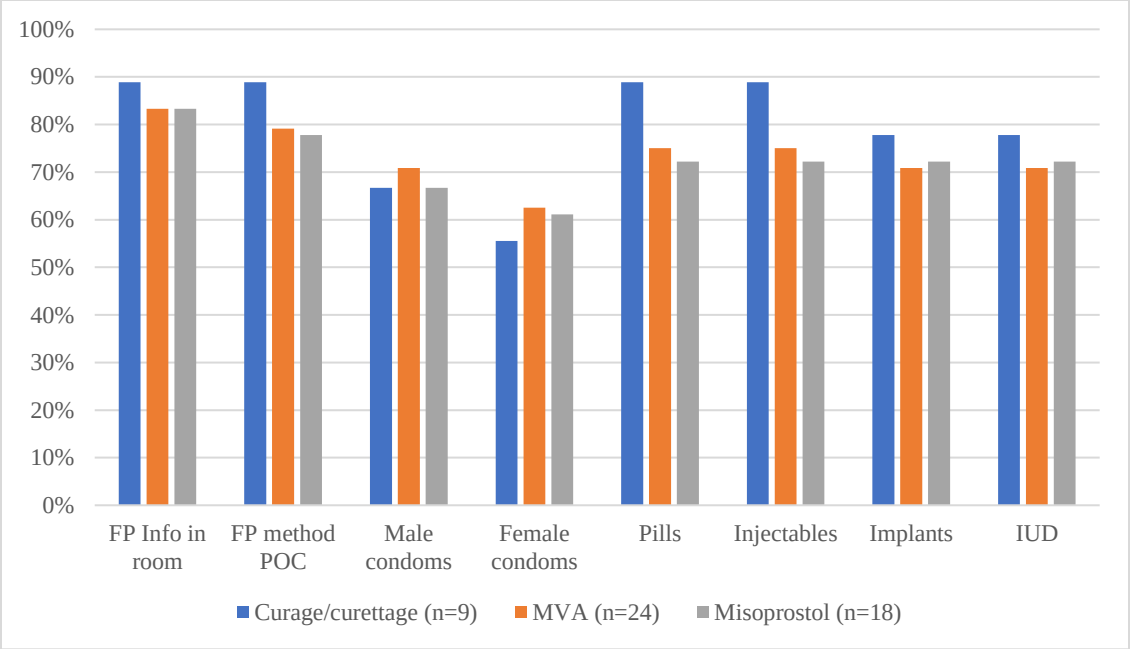


Figure 4.5: Family planning method availability with PAC.

Figure 4.6 shows the contraceptive methods prescribed for women who received family planning as part of PAC or prior to discharge from giving birth over a three-month period (April-June) in 2016. With PAC, the most frequently prescribed method was oral contraceptive pills (69%) followed by injectables (16%) and IUDs and implants combined (10%). Only 1% of women opted for sterilization. For postpartum care, the most frequently prescribed methods were IUDs (40%) and implants (24%). Shorter acting methods – oral contraceptive pills (6%), injectables (25%), and condoms (5%) – were much less frequently prescribed to postpartum women compared to PAC women.

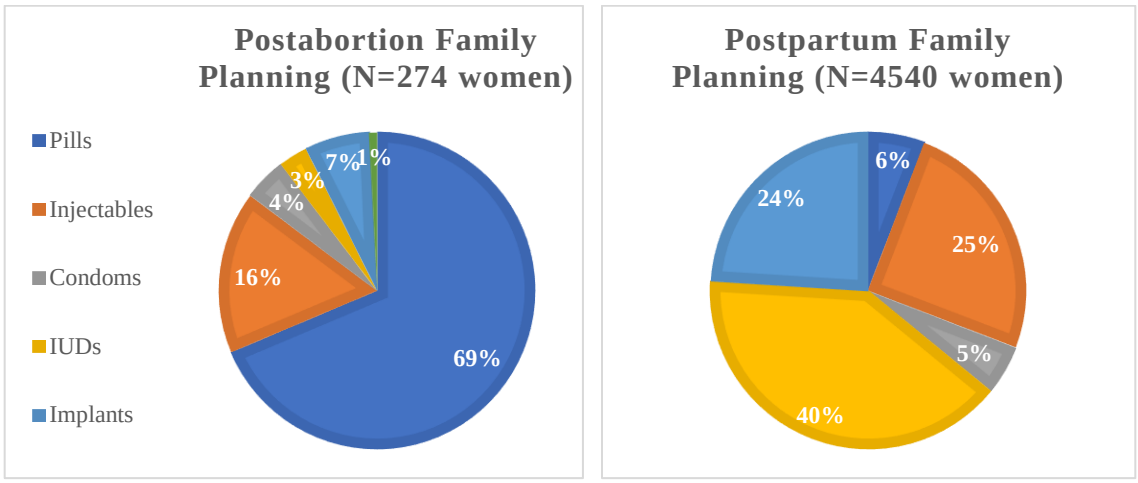


Figure 4.6: Family planning method mix for integrated into postabortion and postpartum care (April-June 2016).

Key informant interviews

Informant characteristics

Key informants ranged in age from 25 to 65 years and had worked between two and 34 years in reproductive health (Table 4.5). One health facility director was trained in PAC/PAC-FP and three were trained in PPFP/PPIUD. One of the health care workers was trainer for PAC and eight had been trained in PAC. Four of the health care workers had been trained in postpartum family planning/PPIUD insertion.

Table 4.5: Description of Key Informants.

Characteristic	Category of Informant				
	Health faculty (n=3)	**Health facility directors (n=10)**	**Healthcare workers (n=14)**	**NGO workers (n=8)**	**Policy makers (n=7)**
Age (Mean, SD)	49.3 (15.0)	45.1(10.8)	38.8(8.7)	53.2(6.2)	50.3(9.1)
Sex (%)					
Male	66	70	14	75	29
Female	33	30	86	25	71
Medical training (%)					
Doctor	33	100	0	50	14
Physician assistant	33	0	21	0	14
Midwife	33	0	65	12	57
Nurse	0	0	7	0	0
Midwifery assistant	0	0	7	0	0
No medical training	0	0	0	38	14
Location of work (%)					
Lomé	0	50	43	63	71
Sokodé	33	20	29	25	14
Kara	0	30	29	13	14
Lomé & Kara	66	0	0	0	0
Type of work place					
Academic institution	100	0	0	0	0
University Hospital	0	20	14	0	0
Regional Hospital	0	30	21	0	0
District Hospital	0	10	14	0	0
Neighborhood Clinic	0	10	21	0	0
Dispensary	0	0	7	0	0
Private Clinic	0	20	21	0	0
International Org	0	0	0	13	0
International NGO	0	0	0	25	14
National NGO	0	0	0	63	0
National MOH	0	0	0	0	43
Regional MOH	0	0	0	0	43
Years working in RH (mean, SD)	22.7(12.7)	107.0(11.0)	12.0(7.4)	20.1(11.3)	19.0(8.5)

*One key informant was interviewed as both a faculty and health facility assessment

Education of health care workers related to reproductive health care

In Togo, there are two medical schools, two nursing schools, two midwifery schools, and one midwifery/nursing assistant school. Within this educational system, three individuals teach all content related to family planning. Table 4.6 highlights topics taught within the different schools. All students are taught about contraceptive methods,

except for permanent methods. Not all are taught about integrated family planning services and/or PAC.

Table 4.6: Family planning, PAC, and PPFP topics taught by type of education and health care worker.

Type of Educational Institution				
D=Didactic/Theory; P=Clinical; C=Continuing education				
Topic	*Medical*	*Midwifery*	*Nursing*	*Assistant Midwifery/Nursing*
Male sterilization	D	D	D	D
Female sterilization	DP	D	D	D
IUD	DPC	DPC	DPC	DPC
Implant	DPC	DC	DC	DPC
OCPs	DPC	DPC	DPC	DPC
Emergency Contraception	DPC	DPC	DPC	D
Injectable contraception	DPC	DPC	DPC	D
Male Condoms	DPC	DPC	DPC	DPC
Female Condoms	DC	DPC	DPC	DPC
Spermicide	DPC	DPC	DPC	DPC
Cycle beads	None	DPC	DPC	DPC
MVA PAC	DPC	DC	DC	D
Misoprostol PAC	DPC	DC	DC	D
D&C PAC	None	None	None	D
Prenatal FP	DPC	DPC	DPC	DPC
PPFP	DPC	DPC	DPC	DPC
PPIUD	DPC	DC	DC	D
PAC-FP	DPC	DPC	DPC	DE
Vaccine & FP	None	D	D	DE
HIV & FP	None	D	D	DE
FP Reporting	DPC	D	D	D
Integrated FP reporting	None	D	D	None
Reproductive health laws	DPC	D	D	D
When abortion is legal	DPC	D	D	None

Barriers and facilitators to family planning, PAC-FP, and PPFP

Major findings about barriers and facilitators to family planning, PAC-FP, and PPFP from the health facility assessments and key informant interviews are placed in three components of the *Integration of targeted health interventions into health systems* conceptual framework (Atun et al., 2010) and summarized, below (Table 4.7).

Table 4.7: Barriers and facilitators to family planning, PAC-FP, and PPFP classified in three components of the Integration of targeted health interventions into health systems conceptual framework.

	The adoption system	Health system		Broad context
	Key stakeholders	**Components of the health system**		
Barriers to intervention implementation	**Health care workers** -Lack of HCW training in PAC-FP/PPFP/FP, especially non-doctors	**Service delivery** -Geographic distance to facility with integrated FP -Limited number of facilities providing all types of FP methods - FP location in the Health facility -Lack of supplies/resources for PAC-FP/PPFP/FP -Inadequately trained staff in PAC-FP/PPFP, especially non-doctors - Lack of human resources to provide FP - Limited hours for FP services - Limited FP method mix, especially permanent methods		**Cultural beliefs** - High desire for children -Rumors about FP -Male/family makes decision about FP use
	Patients/families -Mothers change mind about FP after delivery, do not return for FP method -Mistrust & unawareness of FP/PAC-FP/PPFP by pop -Side effects of FP methods -Opposition of spouse/male partner to use FP	**Financing** -Lack of funding for PAC-FP/PPFP/FP - High cost to patient for PAC-FP/FP	**Monitoring and evaluation** -Lack of monitoring of PAC-FP/PPFP	**Religious beliefs** -Religious individuals may not want to use contraception for various reasons
	Government -Lack of government support of FP programs related to FP materials	**Planning** -FP method stock-outs	**Demand generation** -Population uninformed about FP methods	**Sociodemographic** -Low levels of education of population -Students/youth -Rural populations -Economic hardship of population
Facilitators to implementation	**Health care workers** -Willingness of HCW to provide FP	**Service delivery** - FP, PAC/PAC-FP, and PPFP Protocols in all facilities -All necessary elements for PAC-FP -All necessary materials/equipment for PPFP -FP at PAC POC -Appropriate space for PAC/PAC-FP/PPFP services -Train HCW on PAC/PAC-FP/PPFP/FP - FP given in the immediate PP -Accessible clinics for FP -Have mobile clinics for FP services -Ensure FP services are of high quality		*None mentioned*
	Patients/families -Involve men in FP/PPFP counselling and decision making -More informed population about the benefits of FP/PAC-FP/PPFP	**Financing** -Free/lower cost FP - Increase funding for FP services	**Monitoring and evaluation** -Improved monitoring and research on PAC/PAC-FP/PPFP	*None mentioned*
	Collaborations -Partnerships between key stakeholders	**Planning** -Ensure FP product availability -Increase FP method mix	**Demand generation** -IEC on PAC-FP and PPFP -FP counseling	*None mentioned*

Barriers to family planning and integrated family planning

The frequency of major barriers to family planning, PAC-FP, and PPFP mentioned by informants reflect sociocultural, physiologic, and health care systems factors (Figure 4.7).

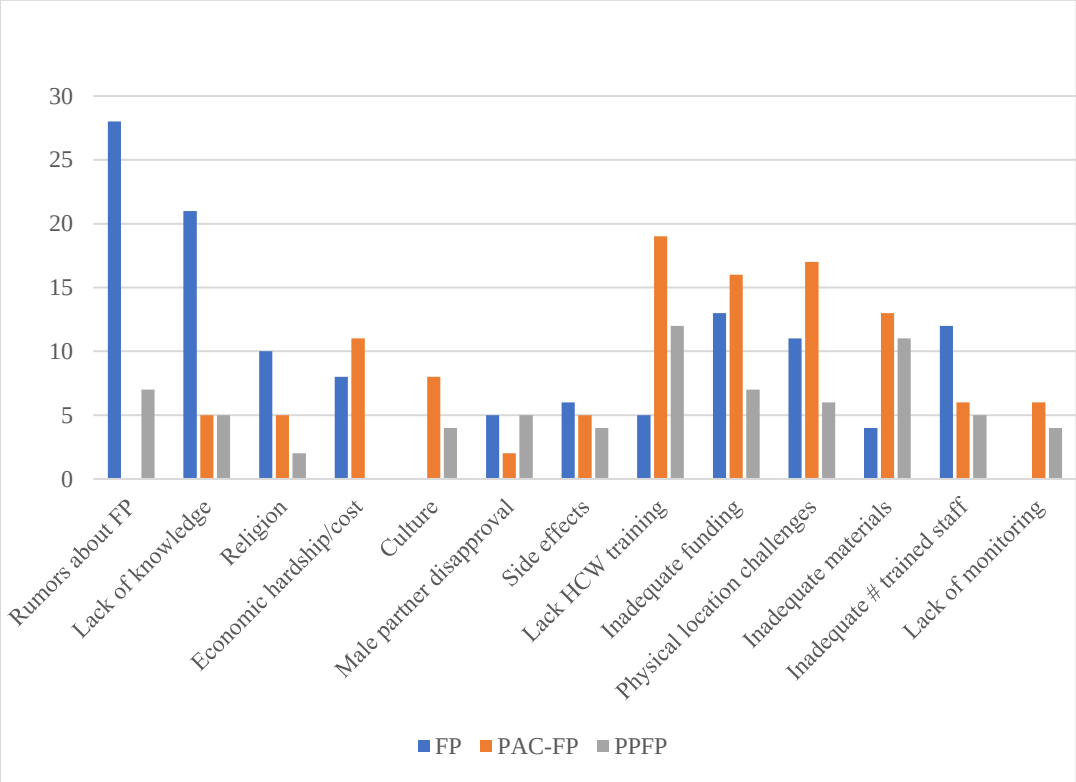


Figure 4.7: Barriers to family planning, PAC-FP, and PPFP.

Illustrative quotes related to barriers to these barriers are shown in Table 4.8, below. These are divided into socio-cultural, physiologic, and healthcare system factors.

Table 4.8: Major themes related to barriers to PAC-FP and PPFP.

Socio-cultural	
Rumors about family planning	*"People may say when you put in the IUD, it will move to your stomach, these are rumors – but someone who never attended school before cannot understand that here is the vagina, here is the abdomen." (NGO01)*
Lack of Knowledge	*"Often people who live on remote farms, far away, they do not know what family planning is. For example, a woman who has seven, eight children. Ehèè, you talk to her about family planning, it's like it's new to her." (DIR02)*
Religion	*"We have customs in Togo […], for example, in some religions, for some, family planning is sin, the woman should not adopt these methods, they advocate more for abstinence from contraceptive methods. There are also certain religions, or in certain customs that women have no right to decide on her own, she must always have the advice of her husband, even though there is the [reproductive health] law. The population does not have knowledge of these laws, most of them; So that the women who are either undergoing these influences do not know that they can decide for themselves." (HCW09)*
Economic hardship/cost	*"People want to use family planning, but do not have the financial means to do it." (POL03)*
Culture	*"The health staff even sympathizes with the woman who has just lost a pregnancy and, because we advise […] to wait six months before having a new pregnancy. The same health staff think that six months is too long. And as a result, counseling is biased. We continue to orient people towards methods like pills, while we know that the risks of forgetting is higher." (DIR03)*
Male partner disapproval	*"When it is a woman who has just married, often that is it, [if] there is an abortion […]. The spouse says no, that's it, [becoming pregnant] can't drag out. He wants a child. So, when they are offered [family planning], they are a little reluctant." (HCW04)*
Physiologic	
Side effects	*"Women report so many side effects, they give up methods, they do not even ask for other methods." (DIR08)*
Healthcare system	
Lack of health care worker training	*"The first barrier is training. Staff training was not correct; You imagine, there are, of course, trainings, but it is not a mass training; We train two, three people, at the end, you see that it is […]. We can train midwives, and in the end, they are more midwives; We train doctors, in the end, they are not on the sites to work" (HCW05)*
Inadequate funding	*"Currently, 100% of the contraceptive products consumed in Togo are supplied by outside [organizations]." (NGO04)*
Physical location challenges	*"The problem was that family planning is not associated with post-abortion care. Why do I say this? During the day, there is the family planning but from five o'clock, the doors for family planning are closed. The night shift does not have access to the family planning service." (DIR02)*
Inadequate materials	*"We have a lack of equipment for the insertion of the IUD in the postpartum period. […] We can have the competence but when we do not have the equipment, we cannot do it." (DIR09)*
Inadequate number of trained staff	*"Untrained staff will not be able to do [PAC-FP]. All providers must also have the skills to do so, otherwise it is a barrier." (POL01)*
Lack of monitoring	*"We need to set up a monitoring system. We often lack it because monitoring requires funding. Programs are implemented but little money is dedicated to monitoring." (NGO01)*

Socio-cultural barriers

All informants mentioned social or cultural barriers such as lack of knowledge by the population and rumors about family planning. Additionally, the strong desire for children in Togo was particularly emphasized during discussions of PAC-FP. The desire to become rapidly pregnant again was noted for older woman who had a wanted pregnancy which ended in spontaneous abortion or a younger woman who was recently married had a spontaneous abortion. Unique to PPFP, sometimes women had to decide on a method prior to discharge but then wait to receive the method but fail to return for the postpartum follow up appointment to receive the method. In other instances, women would receive a family planning method but later be told that her family or husband that they did not approve of her using a family planning method so she would give up. More challenging populations to reach with family planning services included women living in rural areas, younger women, less educated, and Muslim women according to the key informants.

Healthcare system barriers

Many informants mentioned a lack of or inadequate number of health care workers trained in family planning, PAC/PAC-FP, and PPFP as barriers. One informant noted that even when the leadership of the health facility had their staff trained to provide PAC-FP and PPFP, these workers moved, retired, or even died. Related to the cost and funding of family planning, there was support from the Togolese government for PPIUD,

but not for PAC-FP. In addition, informants noted that family planning funding mostly came from sources outside of the Togolese government.

The organization and management of services created additional challenges for PAC-FP and PPFP. Informants mentioned that family planning commodities were often unavailable in the location where PAC service was provided, or that space was unavailable for privacy during counseling. Inadequate supply of commodities necessary for providing family planning, PAC-FP, and PPFP services also was mentioned as a barrier to service.

Facilitators to family planning and integrated family planning

Informants noted some factors that would facilitate the integration of family planning into PAC and postpartum services (Figure 4.8). These mainly included community health education about family planning, PAC-FP, and PPFP, health care worker training in these technical areas, and insuring that the necessary elements for providing PAC-FP, and PPFP services are readily available.

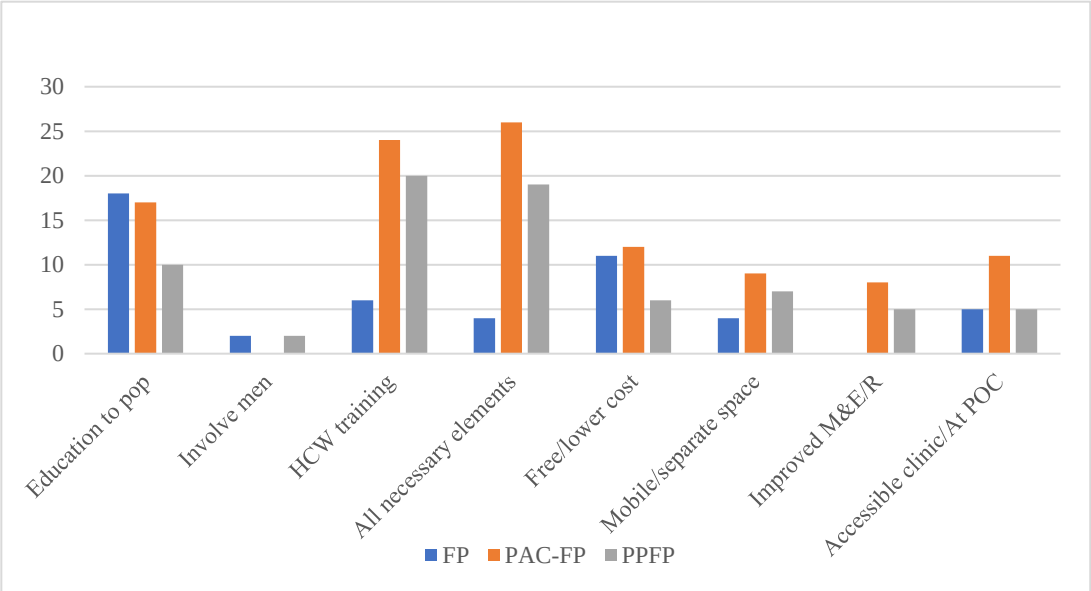


Figure 4.8: Facilitators for FP, PAC-FP and PPFP.

Illustrative quotes from informants for each of the major themes related to facilitators to the provision of family planning, PAC-FP, and PPFP shown below (Table 4.9) divided into socio-cultural, physiologic, and healthcare system related facilitators. Many of these facilitators mentioned were informants are citing the barriers and then proposing solutions that would facilitate receipt of the services.

Table 4.9: Major themes related to facilitators of PAC-FP and PPFP.

Socio-cultural	
Education to population	*"So, if everyone can understand, have this information, people can more freely come to get contraceptive methods to improve their health." (HWC12)*
Involve men	*"Sometimes people go, they choose and after they come back they say "there is this problem according to the husband." This is one of the biggest challenges. Family planning has been based too heavily on women. […] We have to explain to men the importance of family planning because a man often has to give his consent before the woman accepts a method, if the man does not give his consent the woman does not do it, you see and I believe […we must] explain to [men] the merits of family planning." (DIR05)*
Healthcare system	
Health care worker training	*"Yes, we have to train the staff. It is true that there are some who are already, but it is necessary. Perhaps the person who is trained is absent and you must care for a woman. You have to wait for the trained person to arrive, which is a waste of time and then the woman is discouraged." (HCW04)*
All necessary elements	*[Postabortion care] kits [would be] helpful when we have a case before us-instead we start by running from left to right. […] A client who comes from a family that is not very well off, she does not have the means to face these expenses, we will start shouting at the person who is already in trouble. If there is a kit that can be subsidized, it can help the person arrive, the provider also would not be very annoyed because sometimes the providers raise their tone, because [the provider] sees the danger […] but the family does not understand. It is at this moment we will not start shouting at the client as if she is in court. […] But if there is a kit we can quickly take care of her we have time now to calm the family and together see how decisions to keep the uterus at rest and get pregnant at the right time." (HCW12)*
Free/lower cost	*"A lady may have wished to adopt a method of family planning […] but perhaps she cannot afford it. For example, for postpartum [women], it is free, the IUD is free at the moment; Post-abortion care, it's not free, so we do it, we manage it and it's still a barrier, the cost." (HCW09)*
Mobile/separate space	*"First, we have to rehabilitate the health facilities so that the physical buildings respond to the needs of the population" (NGO06).*
Improved monitoring and evaluation/research	*"That's what you need to study, […conduct a] situational analysis, do the analysis of the state of the place and see if actually where I'm going to implement, people will do it. Because we've seen situations like this - they do not go because it's a pilot site and go to implement but when you go away people are not going to do it or it's*

	to be behind. We need to do the follow-up, see them from time to time, visit them from time to time [to see the progress]" (POL05)

Sociocultural facilitators

Raising community awareness of family planning and integrated family planning services was considered an important means of improving the demand for and uptake of family planning services, as well as including men in family planning education and decision-making. Informants also wanted health education to include topics such as financial aspects of parenting.

Healthcare system facilitators

Informants noted that health system facilitators would include training all health care providers in PAC-FP and PPFP, having all necessary equipment and space to provide services, as well as making the cost of family planning methods, especially PAC-FP affordable. Having mobile clinics for family planning was suggested by NGO workers.

While not frequently noted, other healthcare system facilitators to family planning, PAC-FP, and PPFP included combining family planning with vaccination, having individuals dedicated to PAC/PAC-FP care, standardizing the integrated family planning protocols, listening to women about side effects, and making adjustments to her method as needed, increasing supervision of health care workers related to PPFP skills and provision, allowing plenty of time for counseling, especially related to potential side effects, and to having the government and public health care facilities collaborate more with the private sector.

Comparison of health facility assessments and key informant interviews

The findings of the health facility assessment and key informant interviews reveal the variation in levels of training in family planning, PAC/PAC-FP, and PPIUD/PPFP. The health facility assessment showed greater availability of services 24 hours a day than was suggested in the key informant interviews as closure of services was frequently mentioned as a barrier to the provision of family planning as part of PAC and postpartum care. Eighty percent of facilities had MVAs and long placental forceps, while only 16% had autoclaves – the key informants mentioned lack of equipment as a barrier to provision of PAC-FP and PPFP. Pills and injectables were most frequently available with PAC care, while condoms were least frequently available. The family planning method mix for PAC was almost 70% pills followed by injectables (16%); method mix for postpartum women was 40% IUDs, followed by injectables (25%). The key informants pointed to the high use of pills as the main method of family planning following PAC due to the ease of pregnancy following discontinuation and wide availability of the method.

Discussion

Extent of PAC-FP and PPFP integration

From the health facility assessments and key informant interviews, the extent of PAC-FP and PPFP integration appears to be occurring but further integration is largely dependent on Government support for PAC-FP, the availability of trained staff, necessary equipment, appropriate space, and willingness of the women and their families to use

contraception following PAC or delivery. Family planning could be further integrated into these reproductive health services with additional support to the health facilities along with additional education to the population on the economic and health benefits of birth and pregnancy spacing.

Barriers

Contextual barriers to integrated family planning included rumors, mistrust and unawareness about family planning methods, cultural beliefs related to family planning, and the opposition of the spouse and/or family members to the woman receiving family planning. Similar misconceptions about contraceptive methods and low levels of knowledge related to family planning and PAC/PAC-FP were also found in studies from Kenya (Tavrow et al., 2012) and Nigeria (Adanikin et al., 2013; Omu et al., 1989).

Non-universal training of health care providers in family planning, PAC/PAC-FP, and PPFP create barriers to the provision of services. While family planning was generally included in all health care worker basic education, PAC/PAC-FP and PPFP were not. The high levels of PAC-FP observed in the facility assessment suggests that once a woman has access to PAC, she is likely to be able to receive a method of family planning. However, the availability of PAC is limited if there are no trained health workers to provide it. For example, midwives generally provide reproductive and sexual health services, yet doctors have received a higher level of training for these services, especially for PAC-FP. This discrepancy in the education of health care providers related to family planning and PAC-FP and who provides services was shown to be a barrier to service provision in Mexico (Becker et al., 2013) and Kenya (Evens et al., 2014).

The location of family planning services and PAC/delivery were in different locations within the health facility and frequently inaccessible to the health care worker providing the PAC/delivery care. This dilemma was also found in Nepal and Sri Lanka (Arambepola et al., 2014; Rocca et al., 2014).

Variation in availability and/or provision of different methods and costs of PAC-FP and PPFP appear to be a challenge for comprehensive family planning uptake. Limitations of access to a wide range of contraceptives was also found in the Dominican Republic (McCarraher et al., 2010), Mozambique (Gallo et al., 2004), and Ethiopia (Tesfaye & Oljira, 2013). High cost of contraceptives was also a barrier found in Benin, Chad, Cote d'Ivoire, Niger, and Senegal (Pleah et al., 2016).

Implications for programming and policy

Socio-cultural and adoption systems

Solutions to such barriers provided by informants focused on community health education to reduce rumors and increase knowledge of the benefits of family planning, especially using family planning following PAC and in the postpartum period. These findings are consistent with research from Uganda and Kenya (Evens et al., 2014; Rutaremwa et al., 2015). Both Togolese men and women report low levels of exposure to family planning messages through media (radio, television, newspapers) – the percent of women who had no media exposure about family planning increased between the 1998 and 2013/14 Togo DHS from 75% to 79% in 2013/14. For men, the levels with no family planning message media exposure decreased from 57% in 1998 to 48% in 2013/14 (Anipah et al., 1999; Ministère de la Planification du Développement et de

l'Aménagement du Territoire (MPDAT), Ministère de la Santé, & ICF International, 2015). In 2013/14 39% of women and 24% of men had no access to any type of media. Increasing access to radio messaging tailored to women and men would be a likely benefit, such as serial stories about the health and economic benefits of family planning and birth and pregnancy spacing, information to reduce rumors related to family planning, and further information about side effects of different methods, assuring women that they can change methods if they have side effects. Mass media programs have been successful to increase uptake of family planning in Tanzania (Rogers et al., 1999) and in the Philippines (Kincaid, 2000). Research using the 2013 DHS in Nigeria showed significant positive correlation between access to family planning mass media messages and use of family planning (Ajaero, Odimegwu, Ajaero, & Nwachukwu, 2016).

Studies in Kenya related to potential strategies to improve contraceptive acceptance by men included community-based strategies with outreach workers and community leaders to specifically educate men about family planning (Withers et al., 2015). Research in Malawi showed peer educators to be effective in activities to challenge gender norms and improve communication between wives and husbands about family planning (Shattuck et al., 2011). Home visits with men were also successful in Ghana to increase male involvement in family planning (Adongo et al., 2013). Similar interventions could be developed in Togo, as was suggested by the informants, to increase male acceptance of family planning and safe birth spacing.

Healthcare system

Addressing the healthcare system barriers are tangible methods to improve integration of family planning into other services. Increasing training of health care

workers in family planning, PAC/PAC-FP, and PPFP was a priority of key informants. The provision of life saving PAC should be included in the basic training of all types of health care providers in Togo along with the laws that regulate abortion provision. In addition to training, all health facilities need the necessary equipment to provide PAC services along with protocols on standardized methods to provide these services. Health care workers cannot do these tasks safely without training and equipment. Training providers such as doctors and midwives in sterilization methods should also be increased. Training health care providers in family planning counseling and manual vacuum aspiration (MVA) has been successful in improving access to contraceptives and PAC care in Russia (David et al., 2007), China (Zhu et al., 2009), Peru (Benson & Huapaya, 2002), Senegal (Dabash et al., 2003), and Kenya (Solo et al., 1999).

Providing highly subsidized or free of charge contraceptives can also contribute to increased uptake in family planning, as is shown by the high rates of IUD use in the immediate postpartum period in Togo. The success of providing free contraception has also been shown in Guatemala (Kestler et al., 2006), Zimbabwe (Johnson et al., 2002), and China (Zhu et al., 2009). Focusing on the layout of the health facility was frequently mentioned as a potential facilitator to family planning uptake into PAC and postpartum care. Insuring that the family planning supplies and equipment are available where the PAC and delivery/postpartum care take place can ease the service provision. Having effective contraception counselling at the same time and location as PAC treatment has been shown in increase family planning uptake (Shah et al., 2014; Tripney et al., 2013). In addition, having all the necessary equipment is critical to safe provision of care.

Implications for research

Family planning is context specific. Suggested future research includes formative research to gain a better understanding of the cultural and religious barriers to PAC-FP and PPFP in a given setting to tailor interventions to reduce rumors about family planning and increase trust in the importance of increased birth spacing for health. Future research might also focus on developing and testing service delivery models of family planning, PAC-FP and PPFP services in relation to population coverage. An example of this might be research that examines different models of task-shifting of health workers to increase access to PAC/PAC-FP and PPFP. Another area of research could focus on comparing initial pre-service education in PAC/PAC-FP and PPFP and continuing education with respect to provider competence. Finally, it would be valuable to examine why permanent methods of family planning, of great value under appropriate circumstances, are infrequently used in Togo.

Limitations

Health facilities in the health facility assessment sample were all affiliated with *AgirPF* and located in urban areas so that the study findings are not generalizable to non-*AgirPF* urban or rural health facilities. The data are cross-sectional-- collected at one point in time and therefore only provide a snapshot of the current monitoring and evaluation system. It is not possible to document how this system has changed over time.

Limitations of the key informant interviews included potentially not understanding all the possible perspectives of the informants, possible differences in the interviewer's methods for probing and what areas was focused on in each interview, and potential response bias—the study was conducted under the auspices of *AgirPF* and led by the *AgirPF* Monitoring and Evaluation Specialist. In addition, when key informants

were asked about barriers and facilitators to PPFP in Togo it was after PAC-FP so frequently individuals would respond with "the same things as I mentioned for PAC-FP" and then no further questions were asked to follow up on this statement. It may be that some of the barriers and facilitators specific to PPFP were missed.

Conclusions

Using Atun et al's (2010) *Integration of targeted health interventions into health systems* conceptual framework permits a systematic exploration and understanding of the state of integration of family planning into PAC and postpartum care and areas for improved integration. Addressing socio-cultural, adoption system, and healthcare system barriers is critical to expand access to and use of integrated family planning in Togo. Developing a collaborative effort by the Togolese government as well as international and local organizations and partners to address these barriers is needed to improve the lives of the population.

References

Abdel-Tawab, N., Huntington, D., Hassan, E. O., Youssef, H., & Nawar, L. (1999). Effects of husband involvement on postabortion patients' recovery and use of contraception in Egypt. *Postabortion care: lessons from operations research. New York, Population Council*, 16-37.

Adanikin, A. I., Onwudiegwu, U., & Loto, O. M. (2013). Influence of multiple antenatal counselling sessions on modern contraceptive uptake in Nigeria. *The European Journal of Contraception & Reproductive Health Care, 18*(5), 381-387.

Adongo, P. B., Tapsoba, P., Phillips, J. F., Tabong, P. T.-N., Stone, A., Kuffour, E., Akweongo, P. (2013). The role of community-based health planning and services strategy in involving males in the provision of family planning services: a qualitative study in Southern Ghana. *Reproductive health, 10*(1), 36.

Agir pour la Planification Familiale. (2016). *Agenda de la formation en SAA*. Training schedule. EngenderHealth. Lomé.

Agir pour la Planification Familiale (AgirPF). (N.D.). *AgirPF-Togo support to MOH to build capacity for providing FP*. Action plan EngenderHealth. Lomé.

Ajaero, C. K., Odimegwu, C., Ajaero, I. D., & Nwachukwu, C. A. (2016). Access to mass media messages, and use of family planning in Nigeria: a spatio-demographic analysis from the 2013 DHS. *BMC public health, 16*, 427. doi:10.1186/s12889-016-2979-z

Akpadza, K. (2016a). *Formation en soins après avortement*. PowerPoint presentation. Universite de Lomé. Lomé.

Akpadza, K. (2016b). *Rapport de l'atelier de formation en soins apres avortement de 14 prestataires de soins dans les formations sanitiaires appuyees par le projet AgirPF-Togo*. University of Lomé. Lomé.

Anipah, K., Mboup, G., Ouro-Gnao, A., Boukpessi, B., Messan, P., & Salami-Odjo, R. (1999). *Enquête démographique et de santé au Togo – 1998*. Retrieved from Calverton, Maryland: http://dhsprogram.com/pubs/pdf/FR101/FR101.pdf

Arambepola, C., Rajapaksa, L. C., & Galwaduge, C. (2014). Usual hospital care versus post-abortion care for women with unsafe abortion: a case control study from Sri Lanka. *BMC Health Serv Res, 14*, 470. doi:10.1186/1472-6963-14-470

Atun, R., de Jongh, T., Secci, F., Ohiri, K., & Adeyi, O. (2010). Integration of targeted health interventions into health systems: a conceptual framework for analysis. *Health Policy Plan, 25*(2), 104-111. doi:10.1093/heapol/czp055

Becker, D., Diaz Olavarrieta, C., Garcia, S. G., & Harper, C. C. (2013). Women's reports on postabortion family-planning services provided by the public-sector legal abortion program in Mexico City. *Int J Gynaecol Obstet, 121*(2), 149-153. doi:10.1016/j.ijgo.2012.11.018

Benson, J., & Huapaya, V. (2002). *Sustainability of postabortion care in Peru*: Frontiers in Reproductive Health, Population Council.

Bongaarts, J., & Westoff, C. (2000). The potential role of contracption in reducing abotion. *Studies in Family Planning, 31*.

Bwazi, C., Maluwa, A., Chimwaza, A., & Pindani, M. (2014). Utilization of Postpartum Family Planning Services between Six and Twelve Months of Delivery at Ntchisi District Hospital, Malawi. *Health, 2014*.

Central Intelligence Agency. (2017). Togo. *The World Factbook*. Retrieved from https://www.cia.gov/library/publications/the-world-factbook/geos/to.html

Cleland, J., Bernstein, S., Ezeh, A., Faundes, A., Glasier, A., & Innis, J. (2006). Family planning: the unfinished agenda. *Lancet, 368*, 1810-1827.

Cleland, J., Shah, I. H., & Daniele, M. (2015). Interventions to Improve Postpartum Family Planning in Low- and Middle-Income Countries: Program Implications and Research Priorities. *Stud Fam Plann, 46*(4), 423-441. doi:10.1111/j.1728-4465.2015.00041.x

Conde-Agudelo, A., Rosas-Bermudez, A., Castano, F., & Norton, M. (2012). Effects of birth spacing on maternal, perinatal, infant, and child health: asystematic review of causal mechansims. *Studies in Family Planning, 43*, 93.

Dabash, R., Diagne, A., & Ndong, I. (2003). Taking postabortion care services where they are needed: an operations research project testing PAC expansion in rural Senegal.

David, P., Reichenbach, L., Savelieva, I., Vartapetova, N., & Potemkina, R. (2007). Women's reproductive health needs in Russia: what can we learn from an intervention to improve post-abortion care? *Health Policy Plan, 22*(2), 83-94.

Deglo, A. M. T. (2016). *Rapport de l'atelier de formation des prestatiares des zones d'intervention d'AgirPF en counseling PFPP/DIU PP*. Final report. AgirPF. Lomé.

Division de la Sante Familiale, EngenderHealth, USAID, & Agir pour la Planification Familiale (AgirPF). (2014). *Formation en counseling pour planification familiale au Togo: Manuel de Reference*. Lomé.

Eliason, S., Baiden, F., Quansah-Asare, G., Graham-Hayfron, Y., Bonsu, D., Phillips, J., & Awusabo-Asare, K. (2013). Factors influencing the intention of women in rural Ghana to adopt postpartum family planning. *Reprod Health, 10*, 34. doi:10.1186/1742-4755-10-34

Evens, E., Otieno-Masaba, R., Eichleay, M., McCarraher, D., Hainsworth, G., Lane, C., Onduso, P. (2014). Post-abortion care services for youth and adult clients in Kenya: a comparison of services, client satisfaction and provider attitudes. *J Biosoc Sci, 46*(1), 1-15. doi:10.1017/s0021932013000230

Evidence to Action, USAID, & Agir pour la Planification Familiale (AgirPF). (2016). *Atelier de formation sur les soins après avortement adaptes aux adolescentes et aux jeunes femmes au Togo*. Conceptual Note. Evidence to Action. Dakar.

Family Planning 2020. (2014). *Factsheet New Commitments to FP2020*. Retrieved from New York: http://ec2-54-210-230-186.compute-1.amazonaws.com/wp-content/uploads/2015/01/20141126_New_Commitments_SinglePg_8.5X111.pdf

Ferreira, A. L. C. G., Souza, A. I., Pessoa, R. E., & Braga, C. (2011). The effectiveness of contraceptive counseling for women in the postabortion period: an intervention study. *Contraception, 84*(4), 377-383.

Fikree, F., Murgore, S., & Forrester, H. (2014). *Strengthening Postabortion family planning in Togo, Mobilizing Resources*. Retrieved from Washington D.C.: http://www.e2aproject.org/publications-and-tools/?wpv_post_search=strengthening-pac-fp-togo

Gallo, M. F., Gebreselassie, H., Victorino, M. T., Dgedge, M., Jamisse, L., & Bique, C. (2004). An assessment of abortion services in public health facilities in Mozambique: women's and providers' perspectives. *Reprod Health Matters, 12*(24 Suppl), 218-226.

Gebreselassie, T., Rutstein, S. O., & Mishra, V. (2008). Contraceptive use breastfeeding amenorrhea and abstinence during the postpartum period: an analysis of four countries.

Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. Los Angeles: Sage Publications.

High Impact Practices in Family Planning (HIP). (2012). *Postabortion family planning strengthening the family planning component of postabortion care*. Retrieved from Washington, DC: http://www.fphighimpactpractices.org/resources/postabortion-family-planning-strengthening-family-planning-component-postabortion-care

Hounton, S., Winfrey, W., Barros, A. J., & Askew, I. (2015). Patterns and trends of postpartum family planning in Ethiopia, Malawi, and Nigeria: evidence of missed opportunities for integration. *Glob Health Action, 8*, 29738. doi:10.3402/gha.v8.29738

Huber, D., Curtis, C., Irani, L., Pappa, S., & Arrington, L. (2016). Postabortion Care: 20 Years of Strong Evidence on Emergency Treatment, Family Planning, and Other Programming Components. *Global Health: Science and Practice, 4*(3), 481-494. doi:10.9745/ghsp-d-16-00052

Huntington, D., & Aplogan, A. (1994). The integration of family planning and childhood immunization services in Togo. *Studies in Family Planning*, 176-183.

IBM Corp. (2013). IBM SPSS Statistics for Windows, Version 22.0 Released 2013. Armonk, New York: IBM Corp.

Imbuki, K., Todd, C. S., Stibich, M. A., Shaffer, D. N., & Sinei, S. K. (2010). Factors influencing contraceptive choice and discontinuation among HIV-positive women in Kericho, Kenya. *African Journal of Reproductive Health, 14*(4).

International Federation of Gynecology and Obstetrics (FIGO), International Confederation of Midwives (ICM), International Council of Nurses (ICN), United States Agency for International Development (USAID), White Ribbon Alliance

(WRA) Department for International Development (DFID), & Bill and Melinda Gates Foundation. (2013). *Post abortion family planning: A key component of post abortion care*. Retrieved from Washington D.C.: https://www.glowm.com/pdf/PAC-FP-Joint-Statement-November2013-final_printquality.pdf

JHPIEGO, Maternal and Child Health Integrated Program, & USAID. (2011). *Fournir les Services de Diu du Postpartum: Manuel de Référence*. Retrieved from https://www.k4health.org/sites/default/files/manuel_de_reference_diupp_guinee_revjuly2013.pdf

Johnson, B. R., Ndhlovu, S., Farr, S. L., & Chipato, T. (2002). Reducing unplanned pregnancy and abortion in Zimbabwe through postabortion contraception. *Studies in Family Planning, 33*(2), 195-202.

Keogh, S. C., Urassa, M., Kumogola, Y., Kalongoji, S., Kimaro, D., & Zaba, B. (2015). Postpartum Contraception in Northern Tanzania: Patterns of Use, Relationship to Antenatal Intentions, and Impact of Antenatal Counseling. *Studies in Family Planning, 46*(4), 405-422. doi:10.1111/j.1728-4465.2015.00040.x

Kestler, E., Valencia, L., Del Valle, V., & Silva, A. (2006). Scaling up post-abortion care in Guatemala: initial successes at national level. *Reproductive Health Matters, 14*(27), 138-147.

Kincaid, D. L. (2000). Mass media, ideation, and behavior: A longitudinal analysis of contraceptive change in the Philippines. *Communication Research, 27*(6), 723-763.

Marlow, H. M., Maman, S., Moodley, D., & Curtis, S. (2014). Postpartum family planning service provision in Durban, South Africa: client and provider perspectives. *Health Care Women Int, 35*(2), 175-199. doi:10.1080/07399332.2013.815753

McCarraher, D. R., Chen-Mok, M., Oronoz, A. S., Brito-Anderson, S., Grey, T., Tucker, H., & Bailey, P. E. (2010). Meeting the needs of adolescent post-abortion care patients in the Dominican Republic. *J Biosoc Sci, 42*(4), 493-509. doi:10.1017/S0021932010000015

Microsoft. (2013). Word. Redmond, Washington: Microsoft.

Ministère de la Planification du Développement et de l'Aménagement du Territoire (MPDAT), Ministère de la Santé, & ICF International. (2015). *Enquête Démographique et de Santé au Togo 2013-2014.* Retrieved from Rockville, Maryland, USA:

ARRETE N°2016/013/MSPS/CAB/SG/DGAS/DSME portant mission, organisation, composition et fonctionnement de la cellule d'inspection des structures de santé de la reproduction., (2015).

Ministère de la santé et de la protection sociale. (2017). Lutte contre la mortalité maternelle, Néonatale et Infantile. Retrieved from http://sante.gouv.tg/fr/content/presentation-et-chiffres-cles-2

Ministère de la santé et de la protection sociale, Ministere des enseignements primaire secondaire et de la formation professionnelle, Ministere de la fonction publique du travail et de la reforme administrative, & Ecole Nationale des Aides Sanitaires de Sokodé (2016). *Planification familiale: Accoucheuses/Infirmiers Auxiliares*

d'etat de deuxieme annee. Sokodé, Togo: Ecole Nationale des Aides Sanitaires de Sokodé.

Mugore, S., Kassouta, N. T., Sebikali, B., Lundstrom, L., & Saad, A. (2016). Improving the Quality of Postabortion Care Services in Togo Increased Uptake of Contraception. *Glob Health Sci Pract, 4*(3), 495-505. doi:10.9745/ghsp-d-16-00212

NCH Software. (2014). Express Scribe. Greenwood Village, CO: NCH Software, Inc.

Nguyen, M. H., Gammeltoft, T., & Rasch, V. (2007). Situation analysis of quality of abortion care in the main maternity hospital in Hai Phong, Viet Nam. *Reprod Health Matters, 15*(29), 172-182. doi:10.1016/s0968-8080(07)29283-3

Ntapi, K. (N.D.). *Renforcement sur la mise en œuvre effective de la Planification Familiale lors des Soins Après Avortement (SAA) au Togo*. Ministère de la santé. Lomé.

Nvivo qualitative data analysis Software. (2015). NVivo qualitative data analysis Software (Version 11): QSR International Pty Ltd.

Omu, A. E., Weir, S. S., Janowitz, B., Covington, D. L., Lamptey, P. R., & Burton, N. N. (1989). The effect of counseling on sterilization acceptance by high-parity women in Nigeria. *International Family Planning Perspectives*, 66-71.

PAC-FP EngenderHealth. (2016). *PACFP Service Availability and Readiness Assessment*.

Pleah, T., Hyjazi, Y., Austin, S., Diallo, A., Dao, B., Waxman, R., & Karna, P. (2016). Increasing Use of Postpartum Family Planning and the Postpartum IUD: Early

Experiences in West and Central Africa. *Glob Health Sci Pract, 4 Suppl 2*, S140-152. doi:10.9745/ghsp-d-16-00039

Republique du Senegal, Measurement, L., & Evaluation Project, , Global Research and Advocacy Group, & Initiative Senegalaise de Sante Urbaine. (2015). Enquete Finale au Niveau des Structures de Sante 2015. Dakar: Urban Reproductive Health Initiative.

Republique du Togo, CEDEAO/ECOWAS, USAID, & EngenderHealth. (2016). Plan d'Action de plaidoyer pour un environnement politique propice à la planification familiale au Togo. In Republique du Togo, CEDEAO/ECOWAS, USAID, & E. T. A. Project (Eds.). Lomé.

Robinson, N., Moshabela, M., Owusu-Ansah, L., Kapungu, C., Geller, S., & 2016;., H. C. W. I. (2016). Barriers to intrauterine device uptake in a rural setting in Ghana. *Health care for women international*, *37*(2), 197–215.

Rocca, C. H., Puri, M., Harper, C. C., Blum, M., Dulal, B., & Henderson, J. T. (2014). Postabortion contraception a decade after legalization of abortion in Nepal. *Int J Gynaecol Obstet*, *126*(2), 170-174. doi:10.1016/j.ijgo.2014.02.020

Rogers, E. M., Vaughan, P. W., Swalehe, R. M. A., Rao, N., Svenkerud, P., & Sood, S. (1999). Effects of an Entertainment-education Radio Soap Opera on Family Planning Behavior in Tanzania. *Studies in Family Planning*, *30*(3), 193-211. doi:10.1111/j.1728-4465.1999.00193.x

Rutaremwa, G., Kabagenyi, A., Wandera, S. O., Jhamba, T., Akiror, E., & Nviiri, H. L. (2015). Predictors of modern contraceptive use during the postpartum period

among women in Uganda: a population-based cross sectional study. *BMC public health, 15*, 262. doi:10.1186/s12889-015-1611-y

Saeed, G. A., Fakhar, S., Rahim, F., & Tabassum, S. (2008). Change in trend of contraceptive uptake—effect of educational leaflets and counseling. *Contraception, 77*(5), 377-381.

Sayegh, J., & Mosley, W. H. (1976). The effectiveness of family planning education on acceptance of contraception by postpartum mothers. *The Johns Hopkins Medical Journal, 139*, 31-37.

Shah, I. H., Ahman, E., & Ortayli, N. (2014). Access to safe abortion: progress and challenges since the 1994 International Conference on Population and Development (ICPD). *Contraception, 90*(6 Suppl), S39-48. doi:10.1016/j.contraception.2014.04.004

Shah, I. H., Santhya, K. G., & Cleland, J. (2015). Postpartum and Post-Abortion Contraception: From Research to Programs. *Studies in Family Planning, 46*(4), 343-353. doi:10.1111/j.1728-4465.2015.00036.x

Shattuck, D., Kerner, B., Gilles, K., Hartmann, M., Ng'ombe, T., & Guest, G. (2011). Encouraging contraceptive uptake by motivating men to communicate about family planning: the Malawi Male Motivator project. *Am J Public Health, 101*(6), 1089-1095. doi:10.2105/ajph.2010.300091

Sileo, K. M., Wanyenze, R. K., Lule, H., & Kiene, S. M. (2015). Determinants of family planning service uptake and use of contraceptives among postpartum women in rural Uganda. *International Journal of Public Health, 60*(8), 987-997. doi:10.1007/s00038-015-0683-x

Solo, J., Billings, D. L., Aloo-Obunga, C., Ominde, A., & Makumi, M. (1999). Creating linkages between incomplete abortion treatment and family planning services in Kenya. *Studies in Family Planning, 30*(1), 17-27.

Stolarsky, G., Peshkatari, A., & Charurat, E. (2010). An evaluation of ACCESS-FP's work in Albania: Postpartum and postabortion family planning.

Tavrow, P., Withers, M., & McMullen, K. (2012). Age matters: differential impact of service quality on contraceptive uptake among post-abortion clients in Kenya. *Cult Health Sex, 14*(8), 849-862. doi:10.1080/13691058.2012.700324

Tesfaye, G., & Oljira, L. (2013). Post abortion care quality status in health facilities of Guraghe zone, Ethiopia. *Reprod Health, 10*, 35. doi:10.1186/1742-4755-10-35

Togo, M. d. l. S. d. (2015). *SAA*. Division de la Santé Maternelle et Infantile et de la Planification Familiale. Lomé.

ARRETE N°014/2016/MSPS/CAB/SG/DGAS/DSME fixant la liste des produits, méthodes et moyens de contraception approuvés au Togo, (2015).

ARRETE N°015/MSPS/CAB/SG/DSME Portant protection des prestataires des services en matière de santé de la reproduction, (2016).

Tripney, J., Kwan, I., & Bird, K. S. (2013). Postabortion family planning counseling and services for women in low-income countries: a systematic review. *Contraception, 87*(1), 17-25. doi:10.1016/j.contraception.2012.07.014

United States Agency for International Development (USAID). (2004). *Postabortion care strategy*. Retrieved from Washington, DC:

United States Agency for International Development (USAID). (2011). *High impact practices in family planning*. Retrieved from Washington, DC:

United States Agency for International Development (USAID), Australia AID, World Health Organization, UNFPA, Bill and Melinda Gates Foundation, UKaid, . . . Save the Children. (2013). *Statement for Collective Action for Postpartum Family Planning*. Retrieved from http://www.who.int/reproductivehealth/topics/family_planning/Statement_Collective_Action.pdf

Whitworth, J., Sewankambo, N. K., & Snewin, V. A. (2010). Improving implementation: building research capacity in maternal, neonatal, and child health in Africa. *PLoS Med, 7*(7), e1000299. doi:10.1371/journal.pmed.1000299

Wickstrom, J., Russell, N., & Escandon, I. (2008). Engaging communities as partners in postabortion care: a desk review of the Community Postabortion Care Project in Nakuru Kenya.

Winfrey, W., & Rakesh, K. (2014). *Use of family planning in the postpartum period*. Retrieved from Rockville, Maryland, USA: http://dhsprogram.com/pubs/pdf/CR36/CR36.pdf

Withers, M., Dworkin, S. L., Onono, M., Oyier, B., Cohen, C. R., Bukusi, E. A., & Newmann, S. J. (2015). Men's Perspectives on Their Role in Family Planning in Nyanza Province, Kenya. *Studies in Family Planning, 46*(2), 201-215. doi:10.1111/j.1728-4465.2015.00024.x

World Health Organization. (2013). *Human Reproduction Programme. Statement for collective action for postpartum family planning*. Retrieved from Geneva: http://www.who.int/reproductivehealth/publications/family_planning/statmt_ppfp/en/

Zhu, J. L., Zhang, W.-H., Cheng, Y., Xu, J., Xu, X., Gibson, D., . . . Temmerman, M. (2009). Impact of post-abortion family planning services on contraceptive use and abortion rate among young women in China: a cluster randomised trial. *The European Journal of Contraception & Reproductive Health Care, 14*(1), 46-54.

Chapter 5: Summary and Conclusions

Family planning integrated into postabortion and postpartum care at the facility level and in communities are well-established means of increasing uptake and use of family planning (Shah, Santhya, & Cleland, 2015; Tripney, Kwan, & Bird, 2013). Further research is required to identify and analyze the practical interventions which can reduce obstacles that impede family planning integration (Cleland, Shah, & Daniele, 2015; Winfrey & Rakesh, 2014). This is especially urgent in West Africa, where the rates of maternal and neonatal mortality are high and the contraceptive prevalence is low (Cleland et al., 2006; Cleland, Ndugwa, & Zulu, 2011; United Nations, 2011).

This mixed methods case study sought to address some of these gaps in the literature by applying the *Integration of targeted health interventions into health systems conceptual framework (Atun, et al., 2010)* to assess the extent of and factors influencing the integration of family planning into postabortion (PAC) and postpartum care services in Togo, West Africa. The study's methods included secondary analysis of the most recent Togo DHS (2013/14) of women who had given birth within 24 months of the survey, health facility assessments, key informant interviews, a health service record review, and participant observation.

The dissertation document focused on answering five of the research questions in-depth through three papers (Chapter 2: Aim 1, RQ2; Chapter 3: Aim 2, RQ6 and Aim 3, RQ3; Chapter 4: Aim 2, RQ5 and Aim 3, RQ2). These three papers give perspective at the population level on factors related to use of contraception in the extended postpartum period (Chapter 2), from key actors involved in reproductive health care delivery, policy, implementation, support, and teaching (Chapters 2 & 3), and supporting information

related to the capacity of health facilities to provide family planning, PAC/PAC-FP, and postpartum family planning (PPFP) care (Chapters 2 & 3). Gathering data from multiple sources allowed for in-depth exploration from multiple perspectives of the complexity of elements around the implementation and use of PAC-FP and PPFP in context and a degree of triangulation.

The first manuscript, *Factors associated with postpartum family planning use in Togo,* (Chapter 2) used data from the Togo 2013/14 DHS to explore the influence of women's socio-demographic characteristics and health service utilization during the postpartum period on uptake of family planning (Aim 1, RQ2). Only about 19 percent of postpartum women were using modern contraception at the time of the survey. Modern contraceptive use by the women was significantly associated having given birth in a health facility, having a had a postnatal check within two months of birth, the youngest child having received the first DPT vaccine, wanting to space children more than two years from last birth or not have more children, husband's desire for number of children agreeing with the woman's, increasing breastfeeding duration, and living outside of the Savanes region.

Other studies have also found a positive association between modern contraceptive use and health facility birth (Hounton, Winfrey, Barros, & Askew, 2015; Rutaremwa et al., 2015; Saeed, Fakhar, Rahim, & Tabassum, 2008; Sayegh & Mosley, 1976), postnatal visits within two months of birth (Rutaremwa et al., 2015), and accessing immunization services for children (Cooper et al., 2015; FHI 360, 2012; Hounton et al., 2015). In the last two decades, Togo has had significant improvements in maternal and child health statistics. Seventy-five percent of births took place in a health

facility in the three years preceding the 2013/14 DHS, an increase from 49% in the 1998 DHS survey and there was a large increase in vaccination rates - the number of children receiving all eight basic vaccinations in the first year increased by 30%.

Between 1998 and 2014, the government of Togo enacted numerous reproductive health policies to increase access to comprehensive sexual and reproductive health services (L'Assemblee nationale Togolaise, 2007; McDavid & Kodjo, 2012; Republique Togolaise & United Nations, 2008), launched the African Union's CARMMA program (CARMMA, 2015; Centre d'Information des Nations Unies Lome, 2010; McDavid & Kodjo, 2012), increased the number of health care workers in health facilities through opening additional schools of midwifery and medicine (Ministère de la santé et de la protection sociale, 2017) and developed a national volunteer program which includes recruiting unemployed health care workers (Volontaires ONU, 2011). In addition, partnerships between the Togolese government and international and donor agencies have also contributed to the increased access to sexual and reproductive health services, including with the African Development (Republique Togolaise, 2011), Engenderhealth with the *AgirPF* project (Agir pour la Planification Familiale (AgirPF), N.D.), Jhpiego, (Pleah et al., 2016), and the Gavi Vaccine Alliance (Gavi: The Vaccine Alliance, N.D.).

Related to socio-demographic factors, the agreement between husband and wife in the desired number of children is associated with increased use of PPFP which suggests the importance of men's roles in reproductive decision making and of encouraging discussion of reproductive plans between male and female partners. Authors of other studies found that the approval of or discussion with a male partner related to family planning was significantly associated with use of PPFP (Bwazi, Maluwa,

Chimwaza, & Pindani, 2014; Eliason et al., 2013; Sileo, Wanyenze, Lule, & Kiene, 2015). The fact that women from the Savanes region were less likely to use modern contraception compared with their counterparts in the postpartum period is important to note. The Savenes population is poorer, less educated, has a higher total fertility, and higher unmet need for family planning compared with women in the other regions (Ministère de la Planification du Développement et de l'Aménagement du Territoire (MPDAT), Ministère de la Santé, & ICF International, 2015).

The second manuscript, '*It is a question of determination': a case study of monitoring and evaluation of integrated family planning services in Togo*, (Chapter 3) describes reporting systems for reproductive, sexual, and child health services and the different ways in which these systems have been adapted to capture integrated family planning services. The manuscript examines the influence of values, interests, and power dynamics between key stakeholders on quality of the monitoring and evaluation and discusses the implications for policy, programming, and research (Aim 2, RQ6 and Aim 3, RQ3).

The major themes that emerged included challenges and solutions to data accuracy, completeness, and timeliness. The challenges to obtaining accurate and complete data included a lack of guidance on how to record integrated health services information, a mismatch between patient level information recorded in registers and in facility level monthly reporting formats, inconsistency in adaptation of family planning registers to record integrated family planning services across facilities, non-standard reporting documentation for PAC services, uncertainty about who uses the reports, and having multiple types of reporting forms for the Ministry of Health and for partner

organizations. Challenges related to accuracy and timeliness included having multiple registers, one for each type of health service, requiring health workers to enter and re-enter the same information in multiple documents and locations, and having registers located in different departments of the health facility resulting in registers which were not reliably accessible to providers of integrated services at the time of service.

While these barriers exist, there was a strong desire to improve the monitoring system and a great understanding of the importance of quality data for decision-making. The informants offered numerous solutions to improve health service reporting of integrated family planning services. Solutions to improve accuracy and completeness included creating standardized reproductive health registers which correspond with the facility level monthly reporting forms and to develop an electronic data entry system which would allow for individual client data to be entered directly into a tablet or computer. Solutions to improve timeliness of reporting included assigning and potentially hiring support staff in to assume responsibility for the task of reporting and to streamline the reporting process by reducing the overall number of registers and including only the necessary information in those registers.

The informants expressed great interest in the importance of accurate, complete, and timely data to inform health system decision-making, monitor interventions, establish goals, and justify staffing levels. All the informants noted the need to reduce the burden on health care workers for collecting health information that flows up the chain within the system. This was viewed as a major barrier to obtaining and transferring quality data.

The study findings highlighted vulnerabilities with respect to data quality in each link of the reporting chain at the individual patient and facility levels, which are common

globally. Numerous studies have highlighted the many challenges to reliable and timely information related to health service and health status of the population. These include problems with completeness, accuracy, and timeliness in low resource settings (Garrib et al., 2008; Mate, Bennett, Mphatswe, Barker, & Rollins, 2009) and duplicate, parallel reporting systems and lack of capacity for data analysis (Chilundo, Sundby, & Aanestad, 2004) which can increase the difficulty of completing planning as well as monitoring, and evaluation of programs (Lim, Stein, Charrow, & Murray, 2008; Ronveaux et al., 2005). In the end, a health monitoring and evaluation system that generates poor quality data provides a weak foundation for health service decision-making, planning, and health policy.

Lastly, the third manuscript, *Barriers and facilitators of family planning integrated into postabortion and postpartum care in urban areas of Togo*, (Chapter 4) describes the capacity of the health system to provide family planning integrated into PAC and postpartum care, and factors that facilitate or impede the integration of family planning into these services in three urban areas of Togo (Aim 2, RQ5 and Aim 3, RQ2). From the health facility assessments and key informant interviews, PAC-FP and PPFP integration was taking place, but was largely dependent on Government support for PAC-FP and PPFP, the availability of trained staff, necessary equipment, appropriate space, and willingness of the women and their families to use contraception following PAC or delivery. In addition, further integration into these reproductive health services could take place with additional community-wide education to the population on the economic and health benefits of birth and pregnancy spacing.

Contextual barriers to integrated family planning included rumors, mistrust and unawareness about family planning methods, cultural beliefs related to family planning, and the opposition of the spouse and/or family members to the woman receiving family planning. Similar misconceptions about contraceptive methods and low levels of knowledge related to family planning and PAC/PAC-FP were also found in studies from Kenya (Tavrow, Withers, & McMullen, 2012) and Nigeria (Adanikin, Onwudiegwu, & Loto, 2013; Omu et al., 1989).

Variations in level of training for health care providers in family planning, PAC/PAC-FP, and PPFP created barriers to the provision of services. While family planning was generally included in all health care worker basic education, PAC/PAC-FP and PPFP were not. This discrepancy in the education of health care providers related to family planning and PAC-FP and who provides services was shown to be a barrier to service provision in Mexico (Becker, Diaz Olavarrieta, Garcia, & Harper, 2013) and Kenya (Evens et al., 2014).

PAC/delivery services often took place in different locations from family planning services within the health facility, so that health care workers providing the PAC/delivery care at times did not have access to family planning tools and supplies. Different service location for family planning and PAC/delivery was also found in Nepal and Sri Lanka (Arambepola, Rajapaksa, & Galwaduge, 2014; Rocca et al., 2014). In addition, space limitations in the health facilities often led to reduced access to a wide range of contraceptives. This reduced range of family planning services with PAC was found in the Dominican Republic (McCarraher et al., 2010), Mozambique (Gallo et al., 2004), and Ethiopia (Tesfaye & Oljira, 2013).

Contribution to the literature

The three papers (Chapters 2-4) included in this dissertation research add unique contributions to the academic and programmatic literature on the status and factors related to scaling up of family planning integrated into PAC and postpartum care in Togo. This type of implementation research is critical for gaining understanding of the most important aspects to focus on to support successful integrated family planning programs by identifying and promoting practical interventions to address obstacles to family planning integration into PAC and postpartum care. In addition, it will help to understand the behavior of healthcare professionals and other stakeholders in the uptake, adoption, and implementation of these evidence-based interventions through understanding the gaps between integrated family planning as a successful means to increase family planning uptake and the actual delivery of these services to patients and communities in West Africa.

Applying the *Integration of targeted health interventions into health systems conceptual framework* to this Research

Returning to the *Integration of targeted health interventions into health systems conceptual framework* (Atun et al., 2010) is important when summarizing this research. Table 5.1 shows how the results of this research can be fit into the framework.

Table 5.1: Summarizing the results of this research using the Integration of targeted health interventions into health systems conceptual framework adapted from Atun et al. (2010)

Problem	• Unmet need for contraception remains high • Scale up of integrated family planning services could contribute to lower levels of unmet need for contraception
Intervention	• Challenging to know the degree of actual integration of family planning into other health services with the limited reporting available • Increasing uptake of contraception in the postabortion and postpartum period is dependent on addressing the barriers in multiple contributing factors related to integrating this health intervention including the health system characteristics, the adoption system, and the broad context
Adoption system related to family planning/PAC-FP/PPFP	• Women and children are accessing health services in greater numbers • Numerous reasons for not using contraception still exist • There is international governmental and non-governmental support for the success of integrated family planning interventions • There remains a lack of health care workers trained in PAC-FP, PPFP/PPIUD, especially non-doctors • Women/families have mistrust and unawareness of family planning methods/PAC and fear the side effects of the methods
Health system characteristics	• Monitoring of integrated family planning services is not standardized between facilities and can be burdensome to health care workers; there is limited use of technology • Mixed opinions on what the health care data are used for and by whom • Barriers to provision of integrated family planning include: variation in levels of training of health care workers, lack of equipment, physical layout of facilities, limited service hours and family planning method mix, limited financing for PAC, and limited demand generation for family planning services
Broad context	• Women are more likely to use PPFP who desire to space births and breastfeed for a longer period, agree with their husbands on the number of children they want as a couple, live outside Savanes region, have a facility birth, have postpartum care, and/or get their child immunized • There are an increasing number of national and international policies and programs related to improving reproductive, sexual, and child health in Togo • Barriers to family planning/PAC-FP/PPFP use include the strong cultural desire for children, religious beliefs, rumors, male/family opposition, and low levels of education

Implications for Future Research

Greater understanding and knowledge related to the status of family planning integrated into PAC and postpartum care was gained through this research but further research is required to have a more comprehensive understanding of the implementation of family planning integrated into other reproductive health services. The next studies involved in continuing this research agenda are highlighted below:

- Exploring in greater depth through systematic qualitative research methods the preference, acceptability, and accessibility of different types of contraceptive methods, especially in relation to breastfeeding, current cultural practices, and permanent methods
- Exploring the impact of providers who are trained to operate in contexts of integrated family planning services on contraceptive access and use compared with those who are not
- Analyzing the most effective contextualized methods of behavior change communication to increase use of modern contraceptive methods
- Performing time allocation studies of health care providers to show the actual burden on health workers for each type of task and to demonstrate specific areas that may be appropriate for streamlining, including using technologies and task shifting that could reduce time burdens
- Further investigating to what extent the content of reports pertaining to integrated family planning services are used to improve cost effectiveness of reproductive health services to see if integrated services are worth the cost

- Exploring the most effective ways to improve monitoring and evaluation systems themselves, especially in relation to integrated reproductive health programs
- Developing and testing service delivery models of family planning, PAC-FP and PPFP services in relation to population coverage

Implication for Policy and Programming

Low rates of PPFP combined with the high use of key maternal and child health services and the strong associations between PPFP use and use these services makes a compelling case for integrating family planning into such services. At present the extent of integration of family planning into reproductive and child health services in Togo is growing through governmental and non-governmental policy, programming, and training, although it is not provided in a standard way in all health facilities. Programming should focus on further integration of these services, with particular attention on the part of the Government of Togo and donors to investments in the Savanes region, which has experienced extremely low rates of contraceptive prevalence in addition to high rates of poverty, and low educational levels compared with other regions of the country.

Related to monitoring and evaluation, the main recommendations for policy and programming in the Togolese context include consolidating reproductive data for health indicators and reducing provider workload for reporting, especially reporting integrated reproductive health services. Currently the largest task of recording integrated family planning is placed on the health care workers, who have adapted health registers to capture the requested information in monthly reports. When reporting forms are developed they must be standardized to correspond with the associated health register. The number of times the health provider must enter and re-enter data needs to be reduced.

The Togolese Ministry of Health plans to implement a DHIS2 system for health reporting by the end of 2017. The findings of this study have implications for the successful implementation of the DHIS2.

Related to reducing the barriers to access and uptake of family planning integrated into PAC and postpartum care could be done through both socio-cultural and healthcare system interventions. These include community health education to reduce rumors and increase knowledge of the benefits of family planning, especially using family planning following PAC and in the postpartum period. This potentially could be done through increasing access to radio messaging tailored to women and men who would likely benefit. This could include serial stories about the health and economic benefits of family planning as well as birth and pregnancy spacing, information to reduce rumors related to family planning, and further information about the side effects of different methods, assuring women that they can change methods if they have side effects.

Addressing the healthcare system barriers are tangible methods to improve integration of family planning into other services. Increasing training of health care workers in family planning, PAC/PAC-FP, and PPFP was a priority of key informants. The provision of life saving PAC should be included in the basic training of all types of health care providers in Togo along with the laws that regulate abortion provision. In addition to training, all health facilities need the necessary equipment to provide PAC services along with protocols on standardized methods to provide these services. Health care workers cannot do these tasks safely without training and equipment.

Conclusions

This study highlights the potential for integrated reproductive and sexual health services in Togo. There is now a need to focus on developing cost-effective interventions to incorporate contraception into immunization, intrapartum, and postpartum care, increase health care worker training related to providing integrated family planning services, and promote community education about the benefits of birth and pregnancy spacing. To understand the success of these interventions, it is critical to develop systems to record integrated health services without increasing health care providers' workload. Successfully scaling up family planning integrated into postabortion and postpartum care in Togo has the potential to improve the health and save the lives of Togolese women and their families now and in the future.

References

Adanikin, A. I., Onwudiegwu, U., & Loto, O. M. (2013). Influence of multiple antenatal counselling sessions on modern contraceptive uptake in Nigeria. *The European Journal of Contraception & Reproductive Health Care, 18*(5), 381-387.

Agir pour la Planification Familiale (AgirPF). (N.D.). *AgirPF-Togo support to MOH to build capacity for providing FP*. Action plan EngenderHealth. Lome.

Arambepola, C., Rajapaksa, L. C., & Galwaduge, C. (2014). Usual hospital care versus post-abortion care for women with unsafe abortion: a case control study from Sri Lanka. *BMC Health Serv Res, 14*, 470. doi:10.1186/1472-6963-14-470

Atun, R., de Jongh, T., Secci, F., Ohiri, K., & Adeyi, O. (2010). Integration of targeted health interventions into health systems: a conceptual framework for analysis. *Health Policy Plan, 25*(2), 104-111. doi:10.1093/heapol/czp055

Becker, D., Diaz Olavarrieta, C., Garcia, S. G., & Harper, C. C. (2013). Women's reports on postabortion family-planning services provided by the public-sector legal abortion program in Mexico City. *Int J Gynaecol Obstet, 121*(2), 149-153. doi:10.1016/j.ijgo.2012.11.018

Bwazi, C., Maluwa, A., Chimwaza, A., & Pindani, M. (2014). Utilization of Postpartum Family Planning Services between Six and Twelve Months of Delivery at Ntchisi District Hospital, Malawi. *Health, 2014*.

CARMMA. (2015). Financing of maternal, newborn, and child health interventions. Retrieved from http://carmma.org/update/financing-maternal-newborn-and-child-health-interventions

Centre d'Information des Nations Unies Lome. (2010). Le President Faure Gnassingbe lance officiellement la CARMMA au Togo. Retrieved from http://lome.sites.unicnetwork.org/2010/09/14/le-president-faure-gnassingbe-lance-officiellement-la-carmma-au-togo/

Chilundo, B., Sundby, J., & Aanestad, M. (2004). Analysing the quality of routine malaria data in Mozambique. *Malaria journal, 3*(1), 3.

Cleland, J., Bernstein, S., Ezeh, A., Faundes, A., Glasier, A., & Innis, J. (2006). Family planning: the unfinished agenda. *Lancet, 368*, 1810-1827.

Cleland, J., Shah, I. H., & Daniele, M. (2015). Interventions to Improve Postpartum Family Planning in Low- and Middle-Income Countries: Program Implications and Research Priorities. *Stud Fam Plann, 46*(4), 423-441. doi:10.1111/j.1728-4465.2015.00041.x

Cleland, J. G., Ndugwa, R. P., & Zulu, E. M. (2011). Family planning in sub-Saharan Africa: progress or stagnation? *Bulletin of the World Health Organization, 89*(2), 137-143.

Cooper, C. M., Fields, R., Mazzeo, C. I., Taylor, N., Pfitzer, A., Momolu, M., & Jabbeh-Howe, C. (2015). Successful proof of concept of family planning and immunization integration in Liberia. *Glob Health Sci Pract, 3*(1), 71-84. doi:10.9745/GHSP-D-14-00156

Eliason, S., Baiden, F., Quansah-Asare, G., Graham-Hayfron, Y., Bonsu, D., Phillips, J., & Awusabo-Asare, K. (2013). Factors influencing the intention of women in rural Ghana to adopt postpartum family planning. *Reprod Health, 10*, 34. doi:10.1186/1742-4755-10-34

Evens, E., Otieno-Masaba, R., Eichleay, M., McCarraher, D., Hainsworth, G., Lane, C., . . . Onduso, P. (2014). Post-abortion care services for youth and adult clients in Kenya: a comparison of services, client satisfaction and provider attitudes. *J Biosoc Sci, 46*(1), 1-15. doi:10.1017/s0021932013000230

FHI 360. (2012). *Postpartum family planning: New research findings and program implications*. Retrieved from Research Triangle Park, NC:

Gallo, M. F., Gebreselassie, H., Victorino, M. T., Dgedge, M., Jamisse, L., & Bique, C. (2004). An assessment of abortion services in public health facilities in Mozambique: women's and providers' perspectives. *Reprod Health Matters, 12*(24 Suppl), 218-226.

Garrib, A., Stoops, N., McKenzie, A., Dlamini, L., Govender, T., Rohde, J., & Herbst, K. (2008). An evaluation of the District Health Information System in rural South Africa. *South African Medical Journal, 98*.

Gavi: The Vaccine Alliance. (N.D.). *Togo*. Retrieved from Geneva: http://www.gavi.org/country/togo/

Hounton, S., Winfrey, W., Barros, A. J., & Askew, I. (2015). Patterns and trends of postpartum family planning in Ethiopia, Malawi, and Nigeria: evidence of missed opportunities for integration. *Glob Health Action, 8*, 29738. doi:10.3402/gha.v8.29738

Kincaid, D. L. (2000). Mass media, ideation, and behavior: A longitudinal analysis of contraceptive change in the Philippines. *Communication Research, 27*(6), 723-763.

L'Assemblee nationale Togolaise. (2007). *10 janvier 2007 sur la sante de la reproduction*. Retrieved from Lome: http://www.legitogo.gouv.tg/annee_txt/2007/Pages%20from%20jo_2007-002-7.pdf

Lim, S. S., Stein, D. B., Charrow, A., & Murray, C. J. (2008). Tracking progress towards universal childhood immunisation and the impact of global initiatives: a systematic analysis of three-dose diphtheria, tetanus, and pertussis immunisation coverage. *The Lancet, 372*(9655), 2031-2046.

Mate, K. S., Bennett, B., Mphatswe, W., Barker, P., & Rollins, N. (2009). Challenges for routine health system data management in a large public programme to prevent

mother-to-child HIV transmission in South Africa. *PloS one, 4*(5), e5483. doi:10.1371/journal.pone.0005483

McCarraher, D. R., Chen-Mok, M., Oronoz, A. S., Brito-Anderson, S., Grey, T., Tucker, H., & Bailey, P. E. (2010). Meeting the needs of adolescent post-abortion care patients in the Dominican Republic. *J Biosoc Sci, 42*(4), 493-509. doi:10.1017/S0021932010000015

McDavid, E., & Kodjo, A. (2012). *Repositioning Family Planning in Togo: A Baseline.* Retrieved from Washington D.C.: www.healthpolicyproject.com

Ministère de la Planification du Développement et de l'Aménagement du Territoire (MPDAT), Ministère de la Santé, & ICF International. (2015). *Enquête Démographique et de Santé au Togo 2013-2014.* Retrieved from Rockville, Maryland, USA: http://dhsprogram.com/pubs/pdf/FR301/FR301.pdf

Ministère de la santé et de la protection sociale. (2017). Lutte contre la mortalité maternelle, Néonatale et Infantile. Retrieved from http://sante.gouv.tg/fr/content/presentation-et-chiffres-cles-2

Omu, A. E., Weir, S. S., Janowitz, B., Covington, D. L., Lamptey, P. R., & Burton, N. N. (1989). The effect of counseling on sterilization acceptance by high-parity women in Nigeria. *International Family Planning Perspectives*, 66-71.

Pleah, T., Hyjazi, Y., Austin, S., Diallo, A., Dao, B., Waxman, R., & Karna, P. (2016). Increasing Use of Postpartum Family Planning and the Postpartum IUD: Early Experiences in West and Central Africa. *Glob Health Sci Pract, 4 Suppl 2*, S140-152. doi:10.9745/ghsp-d-16-00039

Republique Togolaise. (2011). Lancement du projet "Bid Sante". *Republique Togolaise*. Retrieved from http://www.republicoftogo.com/Toutes-les-rubriques/Politique/Lancement-du-projet-BID-Sante

Republique Togolaise, & United Nations. (2008). *Suivi des objectifs du millenaire pour le developpement au Togo*. Retrieved from Lome, Togo: http://www.undp.org/content/undp/en/home/librarypage/mdg/mdg-reports/africa-collection.html

Rocca, C. H., Puri, M., Harper, C. C., Blum, M., Dulal, B., & Henderson, J. T. (2014). Postabortion contraception a decade after legalization of abortion in Nepal. *Int J Gynaecol Obstet, 126*(2), 170-174. doi:10.1016/j.ijgo.2014.02.020

Rogers, E. M., Vaughan, P. W., Swalehe, R. M. A., Rao, N., Svenkerud, P., & Sood, S. (1999). Effects of an Entertainment-education Radio Soap Opera on Family Planning Behavior in Tanzania. *Studies in Family Planning, 30*(3), 193-211. doi:10.1111/j.1728-4465.1999.00193.x

Ronveaux, O., Rickert, D., Hadler, S., Groom, H., Lloyd, J., Bchir, A., & Birmingham, M. (2005). The immunization data quality audit: verifying the quality and consistency of immunization monitoring systems. *Bulletin of the World Health Organization, 83*(7), 503-510.

Rutaremwa, G., Kabagenyi, A., Wandera, S. O., Jhamba, T., Akiror, E., & Nviiri, H. L. (2015). Predictors of modern contraceptive use during the postpartum period among women in Uganda: a population-based cross sectional study. *BMC public health, 15*, 262. doi:10.1186/s12889-015-1611-y

Saeed, G. A., Fakhar, S., Rahim, F., & Tabassum, S. (2008). Change in trend of contraceptive uptake—effect of educational leaflets and counseling. *Contraception, 77*(5), 377-381.

Sayegh, J., & Mosley, W. H. (1976). The effectiveness of family planning education on acceptance of contraception by postpartum mothers. *The Johns Hopkins Medical Journal, 139,* 31-37.

Shah, I. H., Santhya, K. G., & Cleland, J. (2015). Postpartum and Post-Abortion Contraception: From Research to Programs. *Stud Fam Plann, 46*(4), 343-353. doi:10.1111/j.1728-4465.2015.00036.x

Sileo, K. M., Wanyenze, R. K., Lule, H., & Kiene, S. M. (2015). Determinants of family planning service uptake and use of contraceptives among postpartum women in rural Uganda. *International Journal of Public Health, 60*(8), 987-997. doi:10.1007/s00038-015-0683-x

Tavrow, P., Withers, M., & McMullen, K. (2012). Age matters: differential impact of service quality on contraceptive uptake among post-abortion clients in Kenya. *Cult Health Sex, 14*(8), 849-862. doi:10.1080/13691058.2012.700324

Tesfaye, G., & Oljira, L. (2013). Post abortion care quality status in health facilities of Guraghe zone, Ethiopia. *Reprod Health, 10,* 35. doi:10.1186/1742-4755-10-35

Track20. (2016). Togo FP2020 Core Indicator Summary Sheet: 2016. Retrieved from http://track20.org/download/pdf/2016%20FP2020%20CI%20Handouts/english/Togo%202016%20FP2020%20CoreIndicators.pdf

Tripney, J., Kwan, I., & Bird, K. S. (2013). Postabortion family planning counseling and services for women in low-income countries: a systematic review. *Contraception, 87*(1), 17-25. doi:10.1016/j.contraception.2012.07.014

United Nations. (2011). *World contracptive use 2010*. Retrieved from Department of Economic and Social Affairs, Population Division: http://www.un.org/esa/population/publications/wcu2010/WCP_2010/Data.html

Volontaires ONU. (2011). Lancement officiel du Programme de Volontariat National au Togo. Retrieved from https://www.unv.org/fr/news/lancement-officiel-du-programme-de-volontariat-national-au-togo

Winfrey, W., & Rakesh, K. (2014). *Use of family planning in the postpartum period*. Retrieved from Rockville, Maryland, USA: http://dhsprogram.com/pubs/pdf/CR36/CR36.pdf