HP+ POLICY *Brief*

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Digital Financial Services for Family Planning

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Introduction

The expanded use of mobile and smart phones, fueled by improved connectivity and falling costs of services and equipment, presents the opportunity to incorporate digital financial services (DFS, see Box 1) into the health sector (Delaporte and Bahia, 2022). At the health system level, DFS can promote increased transparency, efficiency, and accountability. Digital financial services also have the potential to transform and streamline procurement of commodities, improve supply chains, support healthcare providers' adherence to clinical guidelines, and enable relationships between patients and providers (Hanson et al., 2022). However, despite the many benefits, the application of DFS to health and, more specifically to family planning, remains limited.

Building upon the U.S. Agency for International Development's (USAID's) *The Role of Digital Financial Services in Accelerating USAID's Health Goals* (Rohatgi et al., 2019), this brief describes how digital financial services for health can address challenges and accelerate progress toward family planning goals. In it, the USAID-funded Health Policy Plus (HP+) project explores the readiness and application of DFS to improve family planning service access and outcomes through actor-oriented solutions. The proposed solutions can be used by family planning stakeholders to design DFS interventions to improve family planning outcomes.

Box 1. Digital Financial Services

Digital financial services refer to banking (including savings and loans), insurance, and payment services (including remittances and bill payments). These services can be accessed by digital channels, such as mobile phones, electronic cards (credit, debit, and prepaid), vouchers, computers, and other electronic instruments (Rohatgi et al., 2019).

HP+'s identified DFS readiness criteria relating to family planning characterization, financing, and social and technology factors are explored further for two countries—Kenya and Pakistan—which serve as examples for others.

Background

How are health financing and financial services related to family planning?

Financial services support family planning health financing activities through several pathways. These can best be explained by examining the three health financing subfunctions: resource mobilization, pooling, and purchasing.

Resource mobilization: With resource mobilization, health budgets are funded through government general revenue and payroll taxes for social health insurance schemes, and

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complemented with direct out-of-pocket payments or external aid (WHO, 2022). Individuals and families can use banking services (e.g., savings accounts or loans) to resolve liquidity constraints and mobilize individual resources for the purchase of family planning services, such as counseling, consultations, and contraceptive products.

Pooling: Pooling funds diversifies the risk of having to pay for high or unexpected healthcare costs or services. For instance, health insurance is a financial service that allows for the management of prepaid financial resources, directly contributing to financial risk protection and wellbeing of individuals and households (WHO, 2022). Contraceptive methods are a low-cost family planning service that are often included in essential benefits packages of public health insurance schemes.

Purchasing of services: Purchasing refers to the use of pooled funds to pay for or allocate resources to health service providers (via capitation, fee for services, or per case reimbursement). Payments to facility and non-facility-based services (e.g., mobile clinics or community health workers) can be tailored to incentivize motivation and quality of care. When purchases are strategic, and based on the population's health needs, resources are more equitably distributed, helping to reduce unmet need through system responsiveness (WHO, 2022).

How are these financial services digitalized for the family planning context?

Digitalization means accessing financial services through channels such as mobile phones, electronic cards (credit, debit, and prepaid), and computers. Digital financial services are tools used to reduce the time and expense associated with providing or collecting payment. DFS have allowed for the purchase of health services to be more efficient, equitable, and accessible and have also helped to develop digital currencies and blockchain (Hanson et al., 2022). For family planning specifically, DFS improves access to commodities and providers, increases population coverage, and reduces cost by streamlining services. For example, to improve access to care and financial protection, DFS for family planning can facilitate delivery of targeted subsidies, such as contraception vouchers, for the poor and vulnerable and ease enrollment in health insurance schemes that cover family planning.

Digital technologies that connect providers and clients, like telemedicine and remote counseling, can promote family planning service access and support contraceptive continuation. Further, digital provider payment systems can ensure providers are paid on time and therefore motivated to maintain effective family planning counseling on method choice, particularly during COVID-19 or other disruptions.

Lastly, DFS can support improved family planning service quality and responsiveness by targeting financial incentives to health workers, linking performance to expenditure, fostering competition among providers through provider payment systems, and integrating client feedback with resource allocation decisions.

What considerations should countries evaluate for DFS readiness and application?

HP+ identified the following factors to assess the readiness of a country to successfully apply DFS for family planning: social, enabling technology, family planning financing, and family planning characterization. Table 1 provides indicators to score each factor. For both social and enabling technology factors, scores are the average of all indicators within that category (0–100). Country family planning financing and family planning characterization factors are used to assess health financing maturity, and are assessed as low, emergent/moderate, or high based on a composite of health financing and family planning indicators included in USAID's Family Planning Financing Roadmap tool. Scoring high on these factors doesn't guarantee success with DFS for family

planning but it reflects the extent to which the enabling environment is poised to support it.

Social factors: The social factors included in Table 1 come from the World Bank's World Development Indicators and comprise women's opportunity and participation in health and economic decisions.

Enabling technology: These indicators also come from the World Development Indicators, focusing on internet utilization and mobile cellular subscriptions.

Family planning financing: Users can rank the family planning financing environment through USAID's Family Planning Financing Roadmap which has an appropriate set of indicators and identifies health financing maturity as low, emergent, or high. Indicators are sourced from countries' costed implementation plans for family planning, national health accounts, the Global Financing Facility, and other country-specific sources, and pertain to the capacity to meet the three health financing core functions detailed previously: domestic resource mobilization, pooling, and purchasing.

Family planning characterization: Users can also apply the Family Planning Financing Roadmap and its indicators to measure family planning context along the modern contraceptive prevalence rate (mCPR) s-curve as low, moderate, or high. Indicators are sourced from FP2020, Track20, national Demographic and Health Surveys, and country-specific sources. Indicators include information on mCPR, method mix, family planning access by sector or wealth quintile, and family planning integration with other health areas.

CASE STUDY

SMS Systems in Madagascar

A leading example of DFS for family planning programming comes from Madagascar, where Marie Stopes International (now MSI Reproductive Choices) implemented a mobile-phone-based short message service (SMS) money transfer system to reimburse family planning service providers for services linked to a subsidized family planning voucher system (Corby, 2012). MSI trained community health workers to promote the voucher program, which covered long-acting and permanent contraceptive methods, device removal services, and follow-up care. MSI also trained participating family planning service providers in the quality delivery of covered services and how to receive voucher reimbursement through the SMS system. Participating youth received a digital voucher for family planning counseling and services via SMS, which were redeemable at affiliated facilities. Following service delivery, facility providers submitted digital claims for the services provided, at which point MSI would confirm the voucher code and digitally reimburse providers for their costs (Burke et al., 2017).

Photo credit: Marie Stopes International

Within the first 18 months of the program, 74 percent of the 58,417 vouchers issued were used by clients and redeemed by service providers. Service providers reported the system was easy to use and most payments were received quickly. In this case, DFS succeeded in generating demand, improving family planning access, and expediting provider payment, suggesting the program could serve as a model for other family planning applications.

Table 1. Factors and Related Indicators to Measure Readiness for DFS for Family Planning

Category	Indicators	Scoring	Source for Indicators
Social and Enabling Technology Environment	**Social Factors** • Literacy rate (% of women 15 years of age and older) • Account ownership at financial institution or mobile money service (% of women 15 years of age and older) • Decisionmaker about a woman's own healthcare: mainly wife and wife and husband jointly (% of married women 15 to 49 years of age) • Decisionmaker about major household purchases: mainly wife and wife and husband jointly (% of married women 15 to 49 years of age)	Average of indicators (0–100)	World Bank's World Development Indicators
	Enabling Technology • Individuals using the internet, including mobile (% of population) • Mobile cellular subscriptions (per 100 people), capped at 100	Average of indicators (0–100)	World Bank's World Development Indicators
Health Financing Maturity	**Family Planning Financing** • Total family planning expenditure by family planning user (USD) • Overall family planning financing by source: domestic, external (%) • Family planning commodity financing by source: domestic, external (%) • Government spending on reproductive health as a percentage of government health spending (%) • Is there a government budget line-item for family planning: commodities, demand creation, service delivery, and other program costs? (Y/N) • Is the government facing transitions from donor to domestic funding for family planning? (Y/N) • Is a transition plan being formed or in place? (Y/N) • Family planning resource needs in most recent year (USD million) • Family planning enabling environment (scale of 0–100) • Are family planning commodities subject to duties or import taxes in the following: public sector, nongovernmental organization sector, social marketing sector, commercial sector? (Y/N) • Does a total market approach strategy exist for family planning? (Y/N)	Low, emergent, or high	USAID's Family Planning Financing Roadmap
	Family Planning Characterization • Modern contraceptive prevalence rate baseline and targeted • Modern contraceptive method mix baseline and targeted (% of users, by method) • Unmet need by wealth quintile • Percentage of women who access family planning services in the public sector (%) • Level of family planning integration with maternal and child health • Level of family planning integration with HIV	Low, moderate, or high	USAID's Family Planning Financing Roadmap

Actor-Based Solutions

The individual indicators and their estimates, as well as the overall mean or categorical score for each factor, serve as evidence to prioritize specific family planning challenges and relevant DFS solutions. Table 2 illustrates family planning challenges and solutions related to access and payment for each actor: family planning user, provider, and payer.

Table 2. DFS Solutions to Family Planning Challenges by Actor

Actor	Family Planning Challenge	DFS Solution
User	**Access** • Poor geographical access and/or long wait times for services or providers **Payment** • Unstable source of income or limited capacity to finance family planning services • Unexpected upfront or recurring costs • Difficulty storing and using vouchers or subsidies	**Digital vouchers or digital credit and lending to:** • Decrease out-of-pocket costs for services or for transportation to clinics/facilities • Access borrowing at competitive rates to pay user fees for family planning services in the private sector • Afford method of choice, seek services at various providers, or seek more frequent care **Digital health savings accounts to:** • Save in advance or contribute to other savings accounts for family planning services, especially during periods of unstable income • Receive and use vouchers or subsidies • Choose method of choice or seek more frequent care • Pay for family planning services efficiently and timely **Digital insurance application to:** • Receive and use vouchers or subsidies to pay for family planning services efficiently and timely
Provider	**Access** • Limited health workers to provide family planning services • Poor contraceptive security (i.e., stockouts) • Limited range of contraceptive methods at facilities **Payment** • Delayed reimbursement of health worker salaries, services, or product costs • Delayed receipt of payment by users • Inadequate payments to incentivize provision of method information and counseling • Difficulty accepting vouchers from various user pools • Limited access to credit and/or reliable financing sources • Difficulty paying licensing/continuing medical education due to inefficient system	**Digital loans or digital credit and lending to:** • Purchase family planning commodities to expand inventory and contraceptive security • Improve infrastructure for better quality of care within private sector service delivery points and corresponding mobile outreach programs • Access trusted, transparent sources of funds **Digital payments to:** • Community health workers to deliver family planning commodities to harder to reach areas • Health worker and community health worker salaries to improve efficiency, motivation, timeliness, and quality of care • Serve as performance-based incentives for health providers to promote family planning counseling or method information and to provide referrals as needed • Increase service provision to a wider user pool through vouchers • Ease payment for licensing and medical education services **Digital claims and reimbursement system to:** • Improve efficiency and timeliness for providers seeking payment or reimbursement

Table 2 *continued*

Actor	Family Planning Challenge	DFS Solution
Payer	**Access** • Poor method mix and supply chain challenges **Payment** • Delayed timeliness in receiving claims and in issuing payments and/or reimbursements to providers/users • Difficulty targeting public funding for family planning services	**Digital payments to:** • Suppliers or donors to receive various products and ensure efficient distribution **Digital claims and reimbursement systems to:** • Automatize claim processing, improve digital payment collection, and improve payments/reimbursements to users or providers **Crowdfunding to:** • Allow users/donors to finance unexpected costs **Digital vouchers to:** • Target public funding for family planning services and clinics

DFS Application: Two Country Examples

Using the readiness criteria explained previously, HP+ identified two FP2030 countries with differing health financing maturity and social and enabling technology environment scores, as well as differing family planning challenges to highlight as examples. The examples synthesize results across evaluation scores and highlight a specific DFS application that was unique and successful within each country. Areas to further explore digital financial solutions are provided, pulling from the table of actor-based solutions.

Kenya

Kenya is a lower-middle-income country with a relatively high mCPR, reported as 45.1 percent among all women of reproductive age in 2020 (FP2030, 2021a). Based on results from the Family Planning Financing Roadmap, the family planning financing of Kenya is rated as low (see Box 2), measured by the capacity to mobilize domestic resources for health, dependency on external financing for health, and coverage of pre-payment schemes such as health insurance (USAID, n.d.a.). The roadmap's results also indicate that despite several health financing schemes in the country, including an essential benefits package, national and social health insurance, results-based financing schemes, and earmarked taxes for health, Kenya spends a relatively low percentage of its gross domestic product on health (4.55 percent compared to the World Health Organization's recommendation of 5 percent) and is reliant on external funding for family planning (61 percent reliance on external sources). In addition, results indicate that a majority of women (60 percent) access family planning services in the public sector compared to the private sector.

Based on World Development Indicators, Kenya has relatively high scores in the social and enabling technology factors (see Box 2) (World Bank, 2022a). In particular, Kenya scores highly on adult female literacy (78.2 percent of women 15 years of age and

Box 2. Kenya Evaluation Scores

HEALTH FINANCING MATURITY SCORES (Low–High)

Family Planning Characterization: **High mCPR**

Family Planning Financing: **Low**

SOCIAL AND ENABLING TECHNOLOGY SCORES (0–100)

Social Factors: **72.62**

Enabling Technology: **61.30**

older in 2018 could read, write, and understand a short simple statement about their everyday life), female decision making (38.6 percent of married women 15 to 49 years of age in 2014 were the main decisionmaker about their own healthcare), and mobile cellular subscriptions (100 per 100 people in 2019). Overall, Kenya scored a 72.62 on combined social factors and a 61.30 on technology factors.

Due in part to the strong social and enabling technology environment, in 2016, Kenya succeeded in creating a digital health payment platform, M-TIBA, which complements the existing M-PESA mobile money transfer service (not health specific). M-TIBA provides mobile savings accounts, health insurance, health funds, and payment management services for external donors and clinics. Users who previously had trouble financing family planning services or unexpected costs can now save, send, and spend funds for medical treatment at partner clinics and hospitals, and even receive financial bonuses by using their M-TIBA savings account. M-TIBA also allows family and friends to send funds to loved ones for healthcare expenses and allows donors and corporations to distribute vouchers or subsidies to beneficiaries for health-specific purposes. In 2018, almost US$2 million medical payouts were made, and in 2019, almost 4 million individuals were connected to M-TIBA. M-TIBA has also expanded access to healthcare financing for communities with high unmet need or to families in informal settlements (Rohatgi et al., 2019). To further improve access among vulnerable populations, M-TIBA could partner with third-party applications to enhance payment access and mobile device use.

Pakistan

Pakistan is a lower-middle-income country with emerging health financing maturity and a moderate mCPR, reported as 17.7 percent among all women of reproductive age in 2020 (FP2030, 2021b; USAID, n.d.b.). As indicated by the Family Planning Financing Roadmap results for Pakistan, while there are several health financing schemes—including an essential benefits package, national and social health insurance, and voucher schemes for family planning—the country spends a relatively low percentage (2.75 percent) of its gross domestic product on health. Less than half of women (46 percent) access family planning services in the public sector, and family planning is not included in its social health insurance package (USAID, n.d.b.).

Pakistan scores moderately on social and technology enabling factors: 46.5 percent of adult females (15 years of age and older) were considered literate in 2017, 9.6 percent of women were the main decisionmaker about their own healthcare in 2018, and 76.4 out of 100 individuals had a mobile cellular subscription in 2019. Overall, using World Development Indicators, Pakistan scored a 37.68 on combined social factors and 46.75 on technology factors (see Box 3) (World Bank, 2022b).

While Pakistan has begun to explore digital solutions to family planning challenges, the country could benefit from additional financial solutions. During COVID-19, Ipas Pakistan partnered with Sehat Kahani, a local healthcare nongovernmental organization and telehealth service, to develop a hybrid telemedicine-community pilot where "lady health workers" connected users to providers via mobile devices. This helped to address a gap in access to health

Box 3. Pakistan Evaluation Scores

HEALTH FINANCING MATURITY SCORES (Low–High)

Family Planning Characterization: **Moderate mCPR**

Family Planning Financing: **Emergent**

SOCIAL AND ENABLING TECHNOLOGY SCORES (0–100)

Social Factors: **37.68**

Enabling Technology: **46.75**

workers for provision of family planning services. Most clients (69 percent) were connected directly to a provider using the mobile app and women were able to receive consultations on contraception and other gynecological concerns (Shaikh, 2021). This pilot program demonstrated the promise of a digital solution to family planning challenges and is an example of how financial services could be added to digital solutions to improve family planning accessibility and quality. Pakistan could integrate a digital health savings account into the application to allow users to save in advance for future family planning services and consultations. It could also incorporate digital payments so users could pay, and providers could receive payment, for services. Pakistan's moderate family planning financing, social, and technological scores are evidence of high DFS integration potential.

Conclusion

The use of mobile phones, electronic cards, computers, and other electronic instruments to purchase health services has increased significantly with the expanded use of mobile and smart phones in developing countries. In the family planning context, DFS can continue to be integrated to improve access to services and financial protection, demand for and use of family planning services, and quality and responsiveness of service providers. DFS for family planning can also improve patient autonomy, self-management of care, and the relationships between patients and providers (Hanson et al., 2022). Mobilizing healthcare to be people-centered, so that all can benefit, has been underscored by the recent COVID-19 pandemic, which disrupted access to many services worldwide (Hanson et al., 2022).

Digital financial services for family planning also promotes several of the Sustainable Development Goals (SDGs), a 2030 agenda to end poverty, protect the planet, and ensure peace and prosperity throughout the globe. In support of the "good health and well-being" goal (SDG 3), DFS for family planning can help reduce the global maternal mortality ratio and preventable deaths for newborns and children, strengthen prevention and treatment for sexual and reproductive healthcare services, and improve health financing and financial risk protection. Countries interested in reaching SDG targets through DFS may consider the solutions outlined in this brief for integration.

Despite the many benefits of DFS for health, unequal integration of DFS within a community or country could exacerbate existing inequalities and exclusions. Access to mobile technology or service coverage should be an ongoing consideration throughout implementation to ensure DFS do not neglect specific populations. Data privacy should also be carefully integrated, to ensure that patient information is governed with appropriate security.

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