



Assessment of the Pregnancy Test Market in Zambia

Zambian Ministry of Health policy supports the use of pregnancy tests in family planning services. Pregnancy tests are procured by the government, sometimes available in public clinics, and widely available in private pharmacies and clinics.

The SHOPS Plus project conducted a market shaping assessment of pregnancy tests in Lusaka, Zambia, which shows that there has been improvement since 2014 in the availability of pregnancy tests in public clinics. It also shows that, while the demand for pregnancy tests has increased, there are occasional and sometimes frequent stockouts of the tests at public clinics.

Those interviewed as part of the assessment suggested that public sector clients often obtained pregnancy tests in the private sector prior to visiting a public clinic due to the general perception of inconsistent availability. Redirecting family planning clients to the private

sector to purchase a pregnancy test can result in a delay in contraception start, cost to the public clinic client, and ultimately the possibility of client drop-off.

There may be opportunities for continued improvement of Zambia's public sector procurement and supply security of pregnancy tests through the enhancement of procurement and logistics procedures, joint forecasting of pregnancy tests and contraceptives between the public and private sectors, aggregation and ordering mechanisms including bundled procurement, increased supply chain visibility, identification of logistics issues, and improved funding.

Background

Screening for pregnancy is often an important step in supporting the immediate start of a contraceptive method when a woman seeks family planning services. Pregnancy status can be determined by conducting a pregnancy test or patient history using the pregnancy checklist. The checklist was developed by the World Health Organization (WHO) and comprises six questions about medical history. Answering “yes” to at least one of the questions allows the provider to be reasonably sure that the patient is not pregnant. If pregnancy cannot be ruled out, the patient may be asked to come back during her next menses.

Ensuring same-day provision of family planning methods is an important way to ensure reliable access to contraception for women and protect them from unplanned pregnancy. Studies suggest that making pregnancy tests more widely available can increase the same-day start of contraception for women seeking family planning services and reduce delay and denial by providers. Family Planning 2020’s goal includes an emphasis on country-level efforts related to increasing access to quality family planning information, services, and products. Pregnancy tests can play an important role in these efforts.

In Zambia, 35 percent of women in Zambia use modern contraception (table). Nine percent of women in Zambia get their family planning method or information from a private medical source (Figure 1).

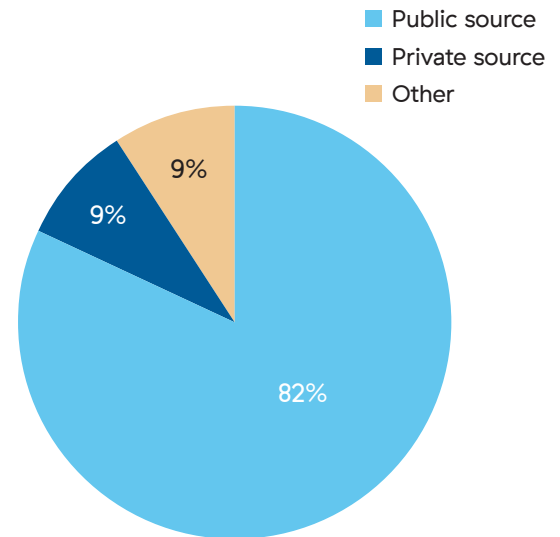
The purpose of this market assessment was to collect and analyze country-level market data for pregnancy tests and their use in family planning services to evaluate whether interventions are needed to increase availability and access to low-cost, quality pregnancy tests.

Key family planning indicators in Zambia

Family Planning 2020 indicator	Percent
Contraceptive prevalence rate, modern methods (all women)	35%
Contraceptive prevalence rate, modern methods (married women)	48%
Demand satisfied (married women)	67%

Source: 2016 Family Planning 2020 Progress Report

Figure 1. Source of family planning methods and information in Zambia



Source: Zambia Demographic and Health Survey 2013–2014

Methods

Several methods were used to collect information for this assessment in Lusaka, Zambia, including secondary research, email inquiries, stakeholder interviews, and field visits. Between June and August 2016, a consultant based in Zambia conducted 47 in-depth interviews and site visits with Zambian public and private sector providers, government staff, retailers, and other stakeholders. The assessment team also researched national guidelines for the use of pregnancy tests in the delivery of family planning and related health services, the inclusion of pregnancy tests on essential commodity lists, and procurement practices.

Interviews focused on provider clinical practices, availability and costs of pregnancy tests, and procurement practices. The assessment team collected data on the manufacturers, types, and costs of pregnancy tests that were available in various outlets. Outlet types included public and private clinics, private sector pharmacies, and clinics run by social marketing organizations. In-country data collection was limited to Lusaka and the surrounding areas.

Following data collection, the SHOPS Plus team analyzed the findings using the market shaping framework presented in the USAID Center for Accelerating Innovation and Impact primer *Healthy Markets for Global Health* (Figure 2). This process involved identifying possible market weaknesses using the criteria of affordability, availability, assured quality, appropriate design, and awareness. The team assessed provider perceptions of pregnancy test quality, but objective quality standards will be completed through a separate process led by FHI 360.

Figure 2. The five A's of market health



Source: USAID Center for Accelerating Innovation and Impact (2014)

To increase access to and availability of quality, lower-cost pregnancy tests, the team identified potential interventions to address market shortcomings.

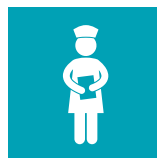
Findings

The following sections outline findings for the Lusaka region in Zambia from the interviews conducted with stakeholders.



Family planning policy

The Ministry of Health supports the use of pregnancy tests in the provision of family planning services. Zambia Family Planning Guidelines and Protocols (2006) is the main document used by health care providers in the country. It provides a detailed technical description of all the family planning methods available in Zambia and sets guidelines for appropriate provision of services. Instructions for determining eligibility for family planning are detailed by method, and in some cases, include the use of a pregnancy test after the patient history is obtained. The guidelines do not explicitly reference the checklist, but they are aligned with the 2004 WHO Medical Eligibility Criteria for Contraceptive Use, which provides recommendations for appropriate medical eligibility criteria based on the clinical and epidemiological data available at that time.



Provider use of the checklist and pregnancy tests

Interviews indicated that public clinic providers use the Zambian family planning protocol, which includes several resource materials: the family planning card, family planning registers, and other family planning booklets. The research indicated that the family planning card serves as a proxy for the WHO checklist to aid in taking patient history. The card is commonly used, but is considered subjective and not entirely reliable due to staff inaccuracy, client honesty, or both. For this reason, clinic providers indicated that they were more comfortable with the option of administering a pregnancy test in addition to using the family planning card.

Similar to public clinics, independent and franchised private providers indicated that they rule out pregnancy by starting with the client profile, screening, and administering a pregnancy test if necessary. If a client is menstruating, she is immediately provided with an family planning method and if she is not, a pregnancy test is administered. Five out of seven clinics did not have the WHO pregnancy checklist available at the time of visit, but did have the family planning cards.



Public procurement

The major suppliers of pregnancy tests in Zambia are its government and the United States government. The tests are supplied through the public supply chain to all health facilities according to their need and demand. The Zambian government procures pregnancy tests through tender procedures and competitive bidding to the local market. Tender evaluations consider technical aspects, product quality, and best price parameters. Procurement is predominantly centralized, but in a few instances facilities procure directly when central stocks are limited.

Pregnancy tests procured through the United States government are processed by the laboratory unit under the Supply Chain Management System following USAID procurement procedures. Facilities submit their orders through the laboratory departments up to the central level, and then the central system distributes pregnancy tests to more than 1,000 facilities across the country.



Availability

Interviews with Ministry of Health personnel revealed that until 2014, pregnancy tests were primarily available through public clinic facility laboratories in Zambia. This resulted in missed opportunities as

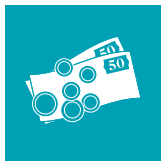
clients were referred to labs for pregnancy testing and did not always return to the family planning provider. After 2014, and with increased focus on improving family planning services, pregnancy tests were made available in clinics and clients were no longer routinely directed to laboratories for pregnancy testing. However, interviews suggested that perceptions that pregnancy tests were inconsistently available remained, sometimes leading public sector clients to purchase pregnancy tests out of pocket in the private sector prior to visiting a clinic. This could lead women to delay visiting a family planning clinic until they first procure a pregnancy test through the private sector.

Interviewees explained that central level availability of pregnancy tests has improved in recent years with the Ministry of Health’s continued effort to scale up family planning. However, even with improvement, availability was described as inadequate due to the increasing demand for pregnancy tests. In 2014, a two-month stockout was reported from January to February at the central level for pregnancy tests. Since then, the central level has been adequately stocked with commodities averaging between four to seven months of stock. The availability of stock at the central level has not fully translated to stock availability at the clinic level. Interviews at the clinic level indicated that stockouts are an ongoing challenge, more for pregnancy tests than for other family planning products.

Number of pregnancy test brands, types, and manufacturers

Brands identified	Dipstick	Cassette	Midstream	Manufacturers identified
24	13	2	9	11

In contrast to public clinics, private sector interviews suggested that pregnancy tests are widely available in pharmacies and private clinics. Across both sectors, this assessment identified 24 brands of pregnancy tests, with the dipstick as the most common product type, and 11 manufacturers of pregnancy tests.



Pricing and costs

Public clinic staff interviews indicated that pregnancy tests are available to clients free of charge at their facilities. At private clinics, the cost of the pregnancy test is included in the provider service fee, which ranges from \$2.00 to \$6.50. Pregnancy tests are available for purchase in retail pharmacies at a range of prices, between \$0.10 and \$4.50. The emergency contraceptive pill costs \$0.15, which is consistent with the least expensive pregnancy tests. Gross margins can be high for both retailers and wholesalers; retail margins were found between 15 and 98 percent as well as wholesale margins between 94 and 95 percent. These margins, while higher than normal for pharmaceutical products, are consistent with the need for pharmacists to generate minimum profitability from low-volume, low-cost products such as pregnancy tests.

In situations where clients might be redirected from a public clinic to a retail pharmacy for pregnancy test purchase (perhaps because of a pregnancy test stockout), these prices could be unaffordable for individual clients. This research was not designed to assess affordability, which would require population-based research.



Product design and quality

The predominant types of pregnancy tests available in Zambia were the dipstick and midstream, with some cassette pregnancy tests available as well. Across all three product types, there was no evidence of either provider or client concerns with the product design or usability.

While an objective evaluation of pregnancy test quality was not included in the research, interviews did not indicate procurer, provider, or client concerns with test quality.

Costs of pregnancy tests and family planning consultations

Pregnancy test at public clinic	Pregnancy test at retail pharmacy	Pregnancy test at private provider	Family planning consultation at private provider	Other product for comparison (emergency contraceptive pill)
Free	\$0.10–4.50*	Included	\$2.00–6.50	\$0.15

*Excludes midstream digital test found in two outlets, at a maximum price of \$12.40.



Recommendations

Consider joint forecasting of pregnancy tests and contraceptives to reduce the risk of stockouts. Depending on current forecasting methods, this could provide increased attention to pregnancy tests as a key family planning commodity and an enhanced approach for pregnancy test demand quantification. Evidence exists regarding the proportional requirements of pregnancy tests to contraceptives to effectively serve a family planning client population, including the use of patient history (through a checklist or similar tool) as a prior step to the pregnancy test. The opportunity for joint forecasting of pregnancy tests and contraceptives will depend on data availability regarding contraceptive forecasting, procurement, and dispensing. This may be challenging depending upon the relative role of the Zambian government and donors in purchasing contraceptives.

Consider the procurement of family planning commodities bundled with pregnancy tests. This is a similar concept to joint forecasting, as both recommendations reflect the anchor role of the pregnancy test in the exclusion of pregnancy as a required step in contraceptive initiation. Procuring family planning commodities in a bundled fashion with pregnancy tests requires that the procurer is able to include pregnancy tests with the contraceptive procurement and supply chain system and is able to fund and quantify the required proportion of pregnancy tests to contraceptives. The proportional requirement guidance will be important to avoid or minimize risk of overstock and waste.

Assess supply chain reasons for pregnancy test stockouts at the health center level. These could include issues such as the priority of pregnancy tests relative to other essential medicines, transport systems, data availability and use, consumption monitoring, and ordering. Recognizing that this study was not intended or designed to assess supply chain functionality and that the Zambia Ministry of Health is committed to strengthening the national public health supply chain through expansion of the Essential Medicines Logistics Improvement Program, the various underlying causes that affect clinic availability of pregnancy tests may already be in the process of being addressed.



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Sustaining Health Outcomes through the Private Sector (SHOPS) Plus is a five-year cooperative agreement (AID-OAA-A-15-00067) funded by the United States Agency for International Development. The project strategically engages the private sector to improve health outcomes in family planning, HIV, child health, and other health areas. Abt Associates implements SHOPS Plus in collaboration with the American College of Nurse–Midwives, Avenir Health, Broad Branch Associates, Banyan Global, Insight Health Advisors, Iris Group, Marie Stopes International, Population Services International, Praekelt.org, and William Davidson Institute at the University of Michigan.



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