

LEARNING & ANALYSIS BRIEF



TECHNOLOGY FOR PERFORMANCE ENHANCEMENT  
TOOLS FOR BETTER PHARMACY MANAGEMENT



Pharmacy businesses in low-resource settings face a lot of challenges which can affect the productivity of their business and quality of their service. PharmAccess' Pharmacy Improvement Program seeks to improve pharmacy management by combining access to finance through local banks with training and technical assistance. Investment in technology could help pharmacies to improve their business operations. This brief presents tools developed by two Pfizer Global Health Fellows in Ghana to help pharmacies identify and select Pharmacy Management Systems suited to their needs.

**Pharmacy Management Challenges in Ghana**

Private pharmacies and clinics play an important role in providing medicines to the population in Ghana. Yet they also face major challenges in managing their pharmacy business, including a lack of reliable supply of quality medicines, currency fluctuations and rising prices of imported drugs, delayed reimbursement from the National Health Insurance Scheme, a shortage of qualified personnel, and limited access to working capital financing. These circumstances and the weak regulatory oversight have resulted in a highly fragmented industry with many small pharmaceutical outlets.

**Pharmacy Improvement Program**

The PharmAccess Pharmacy Improvement Program combines access to financing through part-

ner banks with training and technical assistance aimed at improving pharmacy management. Through the program it was realized that many of the pharmacies and clinics in Ghana still rely on manual processes for their operational, inventory and financial management. This practice restricts their access to timely and reliable information needed to adequately manage their business (i.e. inventory, sales, prices, claims management), adhere to good pharmacy practice and makes it very cumbersome and time-consuming to provide the data required for reporting purposes (i.e. disease and adverse event reporting). The use of technology can help to address these challenges and, more specifically, the implementation of a Pharmacy Management System could help pharmacies and clinics generally to improve pharmacy management.

Technology Landscape in Ghana – Project Findings

**Pharmacies**

- The majority of pharmacy businesses don't have IT systems.
- Most business processes are handled manually and record keeping is minimal.
- Business owners have very little knowledge about the type of IT system needed to manage their pharmacy or available in the market.

**Vendors**

- It is challenging to locate IT vendors due to limited internet use and websites.
- There is quite a variety of IT vendors with different levels of experience that have offerings for pharmacy businesses.
- Most IT systems need some level of configuration to make them applicable for pharmacy businesses which requires insight from both vendors and business owners.
- There are currently no data standards to support consistency within and across Pharmacy Management System information.



KEY COUNTRY FACTS

- 25.9 m**  
population (47% is rural)
- 24.2%**  
of people live below the national poverty line
- 28.6%**  
of people live on less than USD 1.25 /day
- 36.2%**  
of people's spending on healthcare is out-of-pocket
- 1,629**  
pharmacists practicing in Ghana
- 1,253**  
pharmaceutical technicians and assistants work in Ghana

– Based on 2010 and 2013 World Health Organization and World Bank data.

PROGRAM FACTS

PHARMACY IMPROVEMENT PROGRAM

The Pharmacy Improvement Program was developed through PharmAccess' partnership with the Pfizer Global Health Fellows (GHF) program. The GHF program is Pfizer's signature international corporate volunteer program which places highly skilled colleagues in specialized fellowships with leading international development organizations for three to six months. Under this program, Pfizer colleagues with expertise in quality and supply chain management have worked with the Medical Credit Fund and SafeCare to develop the tools and standards needed for the Pharmacy Improvement Program.

## The Project: Selecting Technology for Pharmacy Management in Ghana

This paper presents the work of two Pfizer Global Health Fellows who worked in Ghana for four months in support of the Pharmacy Improvement Program. Their project objective was to develop tools to help pharmacies better understand and communicate their needs to IT vendors, and to create a framework and steps to help them in the implementation of IT solutions. The project approach and execution consisted of:

- Conducting market research and analysis through interviews with regulatory agencies, business owners in the pharmaceutical industry in Ghana, and technology vendors who also provided demonstrations of their Pharmacy Management Systems.
- Defining the IT functionality requirements through review of business processes and needs.
- Designing and developing a framework and tools to support the business needs.
- Testing the tools with a selected number of pharmacies and training PharmAccess staff on the use of the tools.

### Results

The Fellows developed three tools to enable PharmAccess to provide guidance to pharmacies and clinics on the selection of a Pharmacy Management System:

#### 1) Pharmacy Process Management Guide

During the project it became apparent that not all pharmacy businesses are ready to move to an IT system yet, as a minimum set of standardized processes is needed. For this purpose the Process Management Guide was developed. The guide provides content on processes in the key business



areas, examples of standard operating procedures and templates for forms and ledgers, which can be used to start standardizing processes and prepare for an IT system.

#### 2) Pharmacy Management System training module

The training module is aimed at pharmacy owners and explains what a Pharmacy Management System (PMS) is, what it can mean for their business, and recommends steps to be taken in selecting and implementing a PMS.

#### 3) Pharmacy Management System Selection Tool (PharmSSeT)

This is a process-based questionnaire that determines a healthcare facility's level of process complexity and provides recommendations on IT

solutions to meet the business needs. The questionnaire assesses the business level in nine core areas: procurement, inventory management, patient records management, dispensing, distribution, point of sale, claims, accounting, and human resources. The answers are used to determine the level of complexity which is then matched to the systems available in the market. It includes vendor profiles (Ghana specific) and an assessment of their systems. The tool can be used by a PharmAccess facilitator to assist the pharmacy or clinic in selecting systems best suiting their needs.

### What's next?

Moving forward the PharmAccess Ghana team will be piloting PharmSSeT in-country for six months and then providing feedback and recommendations on how to use the tool in other countries.

## TAKE HOME MESSAGES

- By employing information technology, pharmacy businesses in low-resource settings can improve their business operations to drive decisions and profitability through process automation and data insight.
- Pharmacy Management Systems can help improve the inventory management and the quality of pharmaceutical dispensing services.
- The tools developed can be used to assist pharmacies and clinics in Ghana in the selection of Pharmacy Management Systems and can be adjusted for use in other countries with similar settings and resources.

### AUTHORS

2015 Pfizer Global Health Fellows:  
Stacy Aguilar, Francie Rawlings

### AFFILIATIONS

PharmAccess Foundation

### MORE INFORMATION

For more information on this topic, please contact:  
d.mulder@pharmaccess.org