Assessment of Pharmaceutical Wholesale Market in Ghana

An Incentive Survey

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STUDY BACKGROUND

The pharmaceutical sector in Ghana comprises of public and private interests. The hub of the pharmaceutical wholesale market is clustered around the Accra suburb of Okashie. Pharmaceutical wholesalers in this suburb supply medicines and other pharmaceutical products to over 1,000 registered pharmacies and over 7,000 chemical sellers operating in small towns and villages across the country.

The private sector wholesale market is often to be an important player in the sector. However, its role and functions beyond narrow commercial interests are not well known. The private sector wholesalers are clearly an important part of the supply chain from the pharmaceutical producers to the ultimate consumers of drugs and other pharmaceutical products. Given the considerable gap in the knowledge of the critical role played by private wholesaler, MeTA has commissioned a study to examine pharmaceutical wholesalers' incentives to engage in responsible business practices which include assurance of quality of medicines and enhanced transparency dealing with their operations. This component of the study deals with a description of the structure of pharmaceutical wholesale market in Ghana. The rest of this report is organized as follows: the next section deals with the description of the type and composition of pharmaceutical wholesalers. This is followed by a discussion of the customer base of the wholesalers. This is followed by an overview of the survey, analysis, interpretation of results, recommendations and conclusion.

EXECUTIVE SUMMARY

The survey employed key informant interviews to generate qualitative data. A questionnaire based on the five main study areas was used to collect data. The data were qualitative in nature and were analyzed using descriptive statistics.

The results of the analysis show that wholesalers have a strong incentive to trade in registered medicines, maintain good storage practices, implement best procurement practices, improve efficiency in inventory management, maintain responsible financial practices, maintain good corporate image and select medicines that give better public health outcomes. However, the analysis also shows that wholesalers have weak incentives to conduct quality testing of medicines, provide regional distribution points to improve access, implement a scheduled delivery system, decrease the prices of medicines or markups on medicines, maintain environmental safety standards and select medicines with greater public health need.

This study concludes that pharmaceutical wholesalers have a strong incentive to engage in responsible business practices, where these are consistent with their commercial interests. However, they would rather count on others to assure the quality of, and supply information about, the medicines they supply. Further, wholesalers have weak incentives to improve geographical access in areas where sales volumes are likely to be relatively low.

Acronyms

EPC	Environmental Protection Council
FDB	Foods and Drugs Board
GNDP	Ghana National Drugs Programme
LCS	Licensed Chemical Sellers
MeTA	Medicines Transparency Alliance

Glossary

Incentive: An explicit or implicit reward for doing an activity, usually designed to encourage that activity.

Explicit incentive: An incentive that leads stakeholders, by doing an activity, to clearly improve their performance on key indicators. This report's incentive analysis focuses only on explicit incentives.

Implicit incentive: An incentive that requires stakeholders to exert effort (often considerable) to engage in behaviors not directly supported by explicit rewards. Implicit incentives can motivate behavior but are more likely to influence the behavior of individuals than systematically to influence that of organizations. Accordingly, implicit incentives are excluded from this report's incentive analysis. (Lalvani, Yadav, Curtis, Oommann & Bernstein, 2010)

Oligopoly market: An oligopoly is a market structure where a few firms dominate the market. Often the number of firms is between 2 to 50. A common example in Ghana is the mobile phone market with six players. Oligopoly markets are characterized by advertising efforts to gain market share.

Monopolistically competitive market structure: This is the common form of market system. This market is characterized by many sellers and buyers, with buyers exerting little influence on the price of the product. However, sellers may differentiate their products and increase their prices temporarily by branding efforts such as advertisements. Examples in Ghana include restaurants, chop bars, retail stores and pharmaceutical wholesalers**.**

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1 Introduction

1.1 Description of the structure of the pharmaceutical wholesale market in Ghana.

In general, the pharmaceutical industry or sector in any country consists of different companies that manufacture pharmaceuticals, package pharmaceuticals, serve the public in dispensing pharmaceuticals, and manage employers and employees and various consumer benefit schemes including insurance products (Rentmeester & Garis, 2008).

For Ghana, the pharmaceutical sector comprises of producers of drugs, wholesalers, distributors, retailers and consumers. According to the Centre for Pharmaceutical Management (2003), the pharmaceutical market in Ghana on the demand side was worth about 90 million United States dollars (US$) in the year 2001. The size of the pharmaceutical industry was estimated by Seiter and Gyansa-Lutterodt (2009) to be of the magnitude of US$300 million in terms of sales for both locally and imported pharmaceuticals in the year 2008.

Within this market, the government of Ghana is a major player, both as a regulator of the market and as a buyer involved directly in the wholesale and supply of drugs and healthcare services.

Concerns about the provision of relatively cheap and effective drugs to the mass population have led to several government-led and/or private sector-led initiatives in the pharmaceutical sector of Ghana. A recent initiative is the Medicine Transparency Alliance (MeTA) which is a multi-stakeholder organization aimed at increasing the transparency related to the selection, regulation, procurement, distribution and sale of medicines in the developing world. MeTA, initiated by the Government of the United Kingdom, has been launched as a pilot project in seven countries including Ghana. The Ghana MeTA pilot programme ran from September 2008 to October 2010.

1.2 Type and Composition of Pharmaceutical Wholesalers in Ghana

As reported by Centre for Pharmaceutical Management (2003), quoting directly from the Gazette of the Republic of Ghana, there were 15 manufacturing wholesalers in Ghana in 2000(?). Manufacturing wholesalers are defined as those businesses that have both backward and forward linkages in the pharmaceutical manufacturing industry. For example, one company, Kama, was involved in both manufacturing and importation of drugs and was also a registered wholesale retailer. Further, there were 79 wholesalers that also engaged in some retail activities and 280 registered wholesale retailers in the country in the year 2000.

The current number of pharmaceutical manufacturers – including those also engaged in importation, wholesale or other areas of the supply chain – is between 25 and 30. Seiter and Gyansa-Lutterodt (2009) outline the structure of the pharmaceutical wholesale market in the year 2008. They indicate that about 150 companies are licensed or registered national or regional wholesalers of pharmaceutical products. Further, about 60 companies act as importers of pharmaceutical products and they sell these products to local distributors based on their own networks. Seiter and Gyansa-Lutterodt (2009) report that the total number of businesses involved in active drug import and distribution is between 200 and 300. These numbers are similar to those of registered wholesalers of pharmaceutical products in Ghana for the year 2000 as reported by Centre for Pharmaceutical Management (2003). Given the moderately high economic growth of Ghana over the last 25 years, the local pharmaceutical market has become increasingly attractive for both wholesale and retail suppliers. Local producers account for about 30% of market share with the remaining 70% share supplied mainly by Indian and Chinese pharmaceutical firms (Buabeng, 2010; Seiter and Gyansa-Lutterodt, 2009).

In principle, a retail pharmacy in a small-localized area can act as a wholesaler for local chemical sellers or local clinics and hospitals (Seiter and Gyansa-Lutterodt, 2009). This means that potentially pharmaceutical wholesalers can run into several hundreds given the number of districts and local council areas in Ghana and the dominance of one pharmaceutical retailer in a given area, especially for remote parts of the country. Therefore, from an economic analytical viewpoint, the pharmaceutical wholesale market in Ghana has a monopolistic competitive market structure on the supply side; that is, the market is characterized by many sellers who distinguish themselves from each other through branding and selective advertising.

1.3 Customer Base of Pharmaceutical Wholesalers in Ghana

The demand for pharmaceutical products in Ghana is clearly competitive, with many retailers. The demand for pharmaceutical products in Ghana has been influenced by economic factors such as incomes and increasing populations and specific government policies since independence in 1957. Free healthcare at the point of delivery, including free access to pharmaceutical products in clinics and hospitals, was made available to the citizens of Ghana in the First Republic from 1957 to 1966. Governments since 1966 have found it difficult to sustain a free healthcare system, largely due to ideological shifts, increasing population and dwindling financial resources.

In 2003 the government established the National Health Insurance Scheme (NHIS) to replace the Cash and Carry system of the previous government in order to increase access to affordable healthcare. The willingness of Ghanaian citizens to pay premiums for NHIS has been demonstrated by Asenso-Boadi and Coast (2007). The NHIS has increased the demand for pharmaceutical products in the country, making the market more attractive for suppliers and encouraging new suppliers to enter the market (Seiter and Gyansa-Lutterodt, 2009).

Pharmaceutical wholesalers supply medicines and other pharmaceutical products to over 1,000 registered pharmacies and over 7,000 chemical sellers operating in small towns and villages across the country (Grupper et al., 2005, p. 32; Ministry of Health, 2009). Seiter and Gyansa-Lutterodt (2009) indicate that, at the retail level, there were about 1,600 licensed pharmacies and 10000 licensed chemical sellers in Ghana in 2008. Licensed chemical sellers are limited by law to selling over-the-counter drugs, which include some specific drugs used to treat malaria.

The hub of the pharmaceutical wholesale market is the Accra suburb of Okashie, though other major towns like Kumasi and the twin-city of Sekondi and Takoradi have relatively smaller hubs of wholesalers. There are 40 registered pharmaceutical manufacturers (FDB records) in Ghana and these companies serve the hundreds of pharmaceutical wholesalers directly. Some of the pharmaceutical producers have their own wholesale stores in Accra and other cities.

Pharmaceutical wholesalers supply products to both the public and private sectors. Customers from the public sector include government hospitals and other health centres and are estimated to account for 10 to 30 percent of the total sales (Centre for Pharmaceutical Management, 2003, p. 12). Customers from the private sector can be classified into three main groups as follows: (1) registered pharmacies; (2) chemical sellers and shops; and (3) direct consumers. Registered pharmacies, which number about 1,000 in Ghana, – often source their products from pharmaceutical wholesalers or sometimes directly from producers in Ghana and/or overseas. Chemical sellers are more likely to get their products directly from pharmaceutical wholesalers and major retailers in big cities and towns. In a few cases, consumers of pharmaceutical products directly buy their products from pharmaceutical wholesalers. The direct buyers are likely to be people knowledgeable in the science of pharmacy or medicine.

Though this project reviews the structures within the private pharmaceutical sub-sector, it is worth mentioning in brief the mission and the public pharmaceutical sub-sectors. The public pharmaceutical sub-sector comprise the Central Medical Stores (CMS), that is the central wholesaler, and the regional medical stores that supplies pharmaceuticals to the health facilities. The CMS sources its supplies from manufacturers local and foreign.

The mission sub-sector comprises the Christian Health Association of Ghana (CHAG) and Catholic Drug Centre (CDC) that are central suppliers and the Diocesan Hospital Pharmacies that supplies to the Catholic hospitals and other retailers within the region.

1.4 Incentives in the Private Pharmaceutical Wholesale Sector

Efforts to improve access to medicines must start with a clear understanding of each stakeholder's incentives for doing what it takes to meet patient/customer needs and to build an effective, efficient supply chain. This study analyzes the incentives (see Glossary) for pharmaceutical wholesalers to undertake each activity required to meet key needs in the supply chain. The study draws directly on the findings from 41 interviews with different stakeholders within the private pharmaceutical sector. It rates the incentives for each to do what is needed, classifying them as weak, medium, strong, or not applicable (for stakeholders with no influence on a given activity) (Lalvani, Yadav, Curtis, & Bernstein, 2010).

1.5 Key Stakeholders

- **Local Manufacturers:** Producers of finished pharmaceutical goods from raw materials (especially on a large industrial scale) within Ghana.
- **Importers of Pharmaceutical Products:** Importers for customs purposes – the party who makes (or on whose behalf an agent or broker makes) the import declaration, and who is liable for the payment of duties (if any) on the imported pharmaceutical goods. Normally, this party is named either as the consignee on shipping documents and/or as the buyer on the exporter's invoice.
- **Wholesalers:** Firms that buy large quantities of goods from various producers or vendors, warehouse them, and resell to retailers[1].
- **Licensed Chemical Sellers:** Facilities registered by the Pharmacy Council to trade in Class B medicines in accordance with the Pharmacy Act 64.

[1] Distributors carry only non-competing goods or lines.

1.6 Key needs and activities

- **Quality Assurance**

  The assurance of quality consists of that organized arrangement with the objective of ensuring that medicines will be of the quality, efficacy and safety required for the intended use. Assurance of quality of medicine in the supply chain requires all players to maintain best practices throughout the supply chain from manufacturer to the end user, as well as reverse logistics for the withdrawal of medicines that fall short of the accepted standards of quality.

  The Food and Drugs Board (FDB) is the national regulatory body under the Ministry of Health with the responsibility of implementing Food and Drugs Law of 1992, (PNDCL 305B) to regulate the manufacture, importation, exportation, distribution, use and advertisements of food, drugs, cosmetics, medical devices and household chemicals with respect to ensuring their safety, quality and efficacy. The scope of their mandate covers among others, the regulation of:

  - Medicines and vaccines registration and approval
  - Allopathic and Herbal Medicines permit regulation
  - Over-The-Counter and prescription drug labeling
  - Drugs Safety Monitoring

- **Geographical Access**

  Access to medicines relies on good geographical access to prescribing and dispensing facilities for all patients/customers, including in rural and remote settings. The role of private wholesalers in ensuring geographical access is critical, as decisions taken by these stakeholders directly impact on the stocks held by dispensing facilities. Delivery of medicines is a significant cost to wholesalers and this serves as a disincentive for ensuring that medicines are made available to the most remote regions.

- **Affordable pricing**

One major barrier to access to medicines is affordability by the end user or patient. The end user price is made up of several components that are under the control of policy-makers, manufacturers, wholesalers or retailers. The willingness of these parties to reduce the prices of medicines is influenced by factors such as supply and demand, taxes and tariffs, prices of competing products, logistical costs, financial risk, company strategies and efficiency in management. Affordability by the end user is also influenced by household income levels, particularly if patients must purchase medicines 'out of pocket' rather than using health insurance, for example. These factors contribute to whether a patient can overcome the affordability barrier to access medicines.

- **Sustainability**

The ability to maintain growth in the private pharmaceutical sub-sector requires consideration in the practice of sound financial management principles, maintenance of environmental safety standards and the fulfillment of corporate social responsibilities. This will secure and maintain growth in the sub-sector within the healthcare delivery system.

- **Acceptability**

The selection of medicines by end users is primarily based on the needs of patients: thus, public health needs influence the acceptance of medicines. Secondly, the choice of medicines is related to the attainment of better health outcomes. Provision of product information by suppliers increases the possibility of the acceptance of the medicine as information on the benefits to be gained are made available to care givers who need to address various public health needs. This provides an incentive for the actors influencing the supply chain to undertake activities that ensure acceptability by care givers and end users. Public health needs and policies therefore impacts on the economic demands of the market. A typical example is the introduction of Arteminisin-Combination Therapy for Malaria.

2 Study Methodology

The study adapted a methodology used in multiple previous studies (Yadav 2010, Yadav et al 2006, Lalvani et al 2010) to weight wholesaler strengths and weaknesses within the pharmaceutical supply chain through in-house key informant interviews to generate qualitative data.

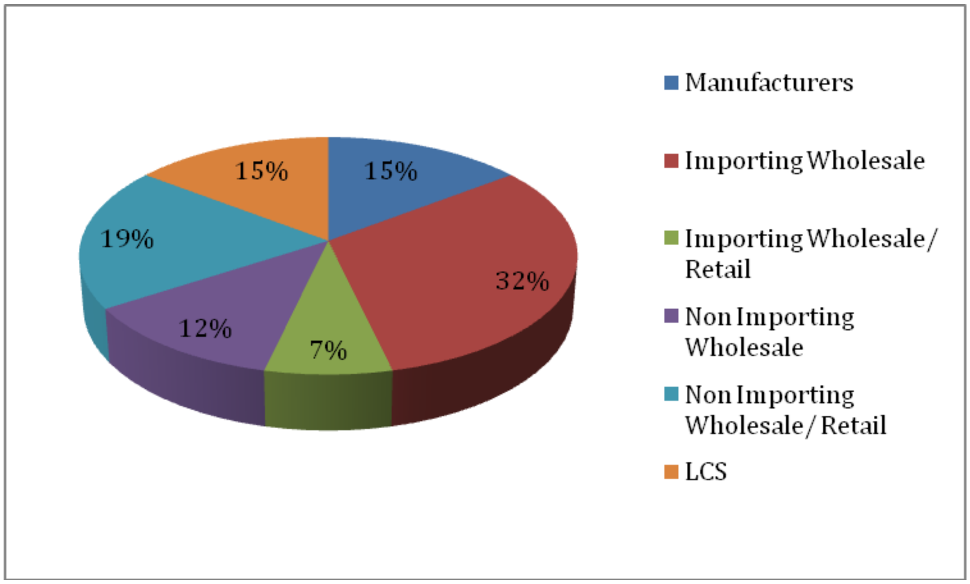
Interviews were conducted at the business premises of wholesalers by three (3) teams, each including one pharmacist. The teams engaged in face-to-face interviews to get a better insight into the activities of the participants. The questionnaire was structured in such a way that it allowed respondents to raise additional issues. The questionnaire comprise of questions that address the 5 key needs and activities of interest (quality assurance, affordability, geographic access, sustainability, and acceptability). Based on the interviews, the researchers/authors rated the incentives for stakeholders in each category to act to meet the key needs identified in section 1.6 above (ratings were strong, medium, weak, and N/A). The information provided by respondents was rated “strong”, if the participant believed in the principle for the activity or the need and practiced it. The rating is “weak”, when the information indicates no believe in neither the principle nor practice. A “medium” rating is given to information indicating believe in principle, but currently lacks practice. Not applicable (N/A) is scored to an activity or need over which the stakeholder has no influence.

Sample size

The survey – which was conducted over a period of two weeks – secured responses from forty-one (41) stakeholders. The respondents were made up of manufacturers 6 (15%), importing wholesalers 13 (32%), importing wholesale/retailers 3 (7%), non-importing wholesalers 5 (12%), non-importing wholesale/retailers 8 (19%) and licensed chemical shops 6 (15%).

The proportion of stakeholders is illustrated in the figure below

Figure 1. Types of Respondents (%)



Inclusion/exclusion criteria

Key informants should be part of senior management and should have worked with the company for about five years or more and be willing to participate in the survey.

3 Analysis and Interpretation

The results of the survey is analysed and present in the various tables below The questionnaire of the survey is illustrated in the second column of the tables, with the ratings for the various activities.

Table 1. Stakeholder Incentives for assurance of quality

Activity **Quality**	Questions used to assess incentives for this activity	Importers	Local Manufacturers	Non Importers	Licensed Chemical Sellers
Trade in registered medicines	Does trading in registered or licensed medicines affect your business? Y/N How do you ensure that the medicines you stock are licensed?	Strong	Strong	Strong	Strong
Conduct Quality testing of medicines	Is there a need to conduct routine quality testing of medicines you stock and is it of any benefit? Y/N How is your business affected by the type of medicines you purchase?	Medium	Strong	Medium	Medium
Maintain good storage practices	Is there a need to improve storage practices and what are the cost- benefit implications? Y/N How do you make your customers aware that the medicines you stock are of a higher quality?	Strong	Strong	Strong	Strong
Conduct post market surveillance	Do you see a need to check quality of products after they have been put on the market? Y/N. What are the cost implications? Do you sample your products on the market to check for their quality? If yes, why or if no, why not?	Strong	Strong	Weak	N/a
Maintain good product recall system	Is there a system in place to ensure product recall if the need arises? Y/N What are the cost implications? What role does the maintenance of a detailed product recall system have in your business?	Strong	Strong	Weak	N/a

From Table 1, all stakeholders are fully committed in trading in registered medicines.

Importers, non-importing wholesalers and licensed chemical sellers are partially committed to quality testing of medicines. Local manufacturers however have a strong incentive for conducting quality tests, which result in benefits like maintaining the quality of their produce and goodwill among customers. The study also revealed that all stakeholders had a strong incentive for maintaining good storage practices even though it was costly to do so. Both manufacturers and importing wholesalers view communicating information on their products quality as beneficial for increasing sales and engaged in product information dissemination. LCS was least inclined to provide information on the quality of the medicines they stock to clients.

Importers and local manufacturers had a strong incentive to conduct post-market surveillance and maintain good product recall systems. Non-importing wholesalers, however, were not committed to doing so, and this activity is not applicable to licensed chemical sellers who rely on the supplier to verify the quality of the medicines they sell.

Table 2. Stakeholder Incentives for ensuring geographical access

Activity Geographical Access	Questions used to assess incentives for this activity	Importers	Local Manufacturers	Non Importers	Licensed Chemical Sellers
Provide good transport services	Does the provision of transportation services improve geographical access? Y/N Do you make transport arrangements for delivering goods your clients and if so, of what value is it to your business?	Strong	Strong	Weak	N/A
Provide regional distribution points to improve access	Do regional distribution points help to achieve better accessibility by clients? Y/N Beyond Accra do you have any other regional distribution points? If yes, is it improving your business, and if no, why not.	Medium	Strong	Medium	N/A
Implement a scheduled delivery system	Will a scheduled delivery system improve geographical access to your customers? Y/N Do you supply your products to rural settings and how? If you do, what are the benefits?	Medium	Strong	Medium	N/A

The study sought to find stakeholders incentives for ensuring good geographical access. The activities (i.e. provision of good transport services, regional distribution point and implementation of scheduled delivery system) involved in this section were not applicable to the licensed chemical seller.

The importer and local manufacturer were committed to providing good transport services. Even though it resulted in an increase in their expenditure, it made the products accessible to many customers and improved turnover. The non-importing wholesalers, on the other hand, were not committed to providing transport services. They do not necessarily involve themselves in the business of distribution, since some manufacturers and importers send sales vans around to distribute. "There are mobile sales teams serving rural communities", "It increases the cost to the customer," stated 2 respondents.

In providing regional distribution points and implementing a scheduled delivery system, the importer and non-importing wholesalers had a partial commitment and incentive to act. The local manufacturer, however, had a strong incentive and was committed to providing regional distribution points in order to increase access and implement a scheduled delivery system. The main benefits stated were "increase in client base", "increase in sales volume and increased ability to compete with other suppliers with significant market share in rural areas". Stakeholders unable to engage in a scheduled delivery system or provision of regional distribution points stated "lack of capacity" and "inadequate working capital", and "low returns from previous attempts leading to their discontinuation of those operations".

Table 3. Stakeholder incentives for ensuring affordable pricing

Activity **Affordable Prices**	Questions used to assess incentives for this activity	**Importers**	**Local Manufacturers**	**Non Importers**	**Licensed Chemical Sellers**
Decrease prices of medicines /markups on medicines	In your view, how affordable are medicines to the end user? Is there a need to decrease prices of medicines? Y/N What do you do to address affordability by those who cannot afford the prices? How does lowering of your prices affect the sale of medicines you stock and does it have the potential to improve turnover significantly?	Medium	Medium	Medium	Medium
Implement best procurement practices	How do you ensure obtaining the best prices through your procurement or purchasing processes? What other practices do you apply to your procurement activities apart from pricing (e.g. Quality, quantities purchased, delivery and credit terms)?	Strong	Strong	Strong	Strong
Improve efficiency in inventory management	Does proper management of stock reduce waste? Y/N How do you monitor and improve your stock?	Strong	Strong	Strong	Strong

From Table 3, all stakeholders had a partial commitment to decrease the prices of products in order to make it affordable to customers. Importers view price of medicines as being extremely high with "the effect of foreign exchange rates", "high import tariffs and taxes", and the "cost of medicine registration" as the main contributory factors. Manufacturers and non-importing wholesalers expressed a different opinion, viewing medicines as being affordable. Most participants stated, "There was a need to further decrease the prices of medicines in view of the average income level of most clients". LCS stated, "Giving alternative medicines" as their main method for addressing affordability. "Quantity discounts" are used by manufacturers and some wholesalers to reduce their markups, whilst most importers stated that there was little they could do to address affordability in view of the high levels of taxes and other administrative charges they incur.

All stakeholders had a strong incentive to implement the best procurement practices. Most stakeholders rely on "price comparisons from various suppliers", "bypassing intermediaries to purchase from direct sources", "negotiations for quantity discounts as the main method for obtaining best purchase prices" for their products. Other considerations affecting their procurement decisions are "credit terms", "remaining shelf life of product upon delivery", "customer demand", "level of promotional support from manufacturer (for wholesalers and importers)", and sometimes "how products would be delivered to customer (delivery terms)".

All stakeholders with the exception of a few LCS agreed that proper stock management reduces waste and were fully committed to improving efficiency in inventory management. Some LCS stated that their level of stocks were so low that they hardly required any active or sophisticated stock management system as they have had very little waste. The main methods applied for inventory management in manufacturing facilities and in the large wholesalers were by computerized inventory management system.

Table 4. Stakeholder incentives for ensuring sustainability

Activity Miscellaneous	Questions used to assess incentives for this activity	Importers	Local Manufacturers	Non Importers	Licensed Chemical Sellers
Maintain environmental safety standards	In your view how should expired or unused products be disposed of to ensure environmental safety? How do you dispose of your expired or unused products?	Medium	Strong	Medium	Medium
Maintain responsible financial practices and accountability	Is financial management crucial to the long-term growth and sustainability of a business? Do you have a financial management system in place?	Strong	Strong	Strong	Medium
Fulfill social responsibility and maintain good corporate image	Is it beneficial to support social activities as part of a company's social responsibility? Do you support such activities?	Strong	Strong	Strong	Medium

From Table 4, importers, non-importing wholesalers and LCS had a partial commitment to maintain environmental standards. Local manufacturers were of the view that the disposal of pharmaceutical waste should be under the guidelines of the FDB in conjunction with the EPA and cities' metropolitan council authorities. Most importers held similar views, but some wholesale/retailers and most LCS stated "dumping or incineration" as their view on how pharmaceutical waste should be disposed of, with no mention of the FDB or any other regulatory authority.

Importers, local manufacturers and non-importing wholesalers had a strong incentive to maintain responsible financial practices and accountability, while the licensed chemical sellers were partially committed to doing so. Financial management systems are in place in manufacturing and importing wholesale facilities. Smaller facilities that do not have established financial management systems cite the "size of their operations" and "lack of capital" as the main reason for their inability to put such systems in place.

Also, in fulfilling social responsibilities and maintaining a good corporate image, the importers, local manufacturers and non-importing wholesalers had strong incentive, while the licensed chemical sellers had only a medium incentive. All manufacturers and importers viewed support of social activities as part of their corporate responsibility and participated in them. They stated that "exposure of the company" and "advertisement of their products" was the main benefits they gained in participating in such activities.

Table 5. Stakeholder incentive for ensuring acceptability

Activity Ensuring Acceptability	Questions used to assess incentives for this activity	Importers	Local Manufacturers	Non Importers	Licensed Chemical Sellers
Select medicines with greater public health need	Should public health needs influence the choice of medicines stocked? What criteria do you use in selecting medicines to stock?	Medium	Strong	Medium	Strong
Select medicines which give better public health outcomes	Are better treatment outcomes a factor in the choice of medicines stocked? Do treatment outcomes influence the selection of medicines you manufacture or stock?	Strong	Strong	Strong	Strong
Promote medicines	Does the promotion of medicines improve business? Do you promote some drugs and, if so, why?	Strong	Strong	Medium	Strong

To ensure acceptability, local manufacturers and licensed chemical sellers were committed to selecting medicines that had greater public health relevance. The importers and non-importing wholesalers were partially committed to doing this. "Customer demand is perceived as the main criteria to be considered in the selection of medicines to produce or stock". Two (2) manufacturers stated "disease patterns and prevalence", and "research into endemic diseases" as part of their considerations.

Again, all stakeholders had a strong incentive to deal in drugs that give better public health outcomes. Most participants were of the opinion that "treatment outcomes had a direct influence or an indirect effect through prescriptions received” on their selection of medicines stocked.

Lastly, the importers, local manufacturers and licensed chemical sellers had a strong incentive in involving themselves in activities that promote medicines. “Promotion and adverts” were perceived to “significantly increase customer demand”. Manufacturers and importers used “dissemination of product information amongst care givers, exhibitions and adverts” as their main channels for promotion. The non-importer, however, was not fully committed to promoting medicines as they were of the opinion that “it was the responsibility of the manufacturer or importer”.

4 Conclusion

This paper has provided a brief summary of the structure of the pharmaceutical wholesale market in Ghana. More information on the details of the structure of the wholesalers market is provided in the survey undertaken to assess motives and objectives of pharmaceutical wholesalers in Accra.

Both importers and non-importing wholesalers have a strong incentive to trade in registered medicines, maintain good storage practices, implement best procurement practices, improve efficiency in inventory management, maintain responsible financial practices and accountability, fulfill social responsibility and maintain good corporate image and select medicines which give better public health outcomes.

Importers have a stronger incentive than non-importing wholesalers to conduct post-market surveillance, maintain good product recall system and to provide good transport services. Both importers and non- importing wholesalers do not have a strong incentive to conduct quality testing of medicines. They also don’t have strong incentives towards the provision of regional distribution points or the implementation of a scheduled delivery system to improve access. Wholesalers in this survey lack incentives to decrease prices of medicines/mark-ups on medicines to improve affordability. They do not have strong motivation to maintain environmental safety standards towards sustaining their businesses; or select medicines for which there is greatest public health need.

Manufacturers are the stakeholders with the strongest incentives to perform all key activities, with the exception of decreasing prices and markups on medicines.

Licensed chemical sellers are the stakeholders with strong incentives in the least number of key activities, namely trading in registered medicines, maintaining good storage practices, implementing best procurement practices, improving efficiency in inventory management, maintaining environmental safety standards, selecting medicines for which there is greatest public health need, selecting medicines which give better public health outcomes and in promoting medicines

This study concludes that in most cases, pharmaceutical wholesalers have strong incentives to engage responsible business practices. The main exception is that they would rather count on others to assure the quality of, and provide information on, the medicines they supply.

There is however a weak incentive for them to improve geographical access because of low turnover.

Pharmaceutical wholesalers' incentives are also not uniform in nature and do vary sometimes based on the type on business. The type of wholesale practice affects the strength of their incentives to be involved in an activity addressing a key need.

5 Recommendations

The supply chain can be made more efficient by addressing the key needs within it. The observations and recommendations below are based on the various activities where the stakeholder incentives are misaligned. The recommendations are aimed at achieving stronger stakeholder incentives across the supply chain.

- Quality assurance is an important unmet need within the supply chain that is required to maintain the quality of the chain. All stakeholders have a strong incentive in trading in registered medicines and maintaining good storage practices, which must be encouraged and supported.

  Local manufacturers have strong incentive to conduct routine quality testing. However, wholesalers and licensed chemical sellers would need support in undertaking routine quality testing. Non-importing wholesalers also require support in post-market surveillance and maintaining efficient product recall systems.

- Local manufacturers have stronger incentives for ensuring geographical access (provision of good transport services, provision of regional distribution points and implementation of scheduled delivery systems). Importing wholesalers have a strong incentive for the provision of transport services only.

  Importing and non-importing wholesalers have a weaker incentive within the supply chain to set up regional distribution points or implement a scheduled delivery system. There may be the need for the provision of less stringent terms to enable wholesalers to set up regional distribution outlets if that would improve geographical access to medicines by end users.

- There is a strong stakeholder incentive to implement best practices in procurement and inventory management across the supply chain, which must be supported and encouraged.

Stakeholders have a weak incentive to decrease prices and mark-ups on medicines. Advocacy for policy change is required to address issues of affordability, accompanied by the reduction of licensing fees, taxes and tariffs on medicines. This may address the concerns of stakeholders and strengthen incentives to meet the need for affordable pricing. Stakeholders can be introduced to a new thought paradigm by using models/pilots to demonstrate to them the fact that selling more volumes with lower markups/more affordable prices can in fact make them more profitable and also serve a community purpose.

- Manufacturers are the only stakeholders committed to maintaining proper waste disposal and ensuring environmental safety.

  Besides the manufacturers, educating the other stakeholders may help improve incentives on the proper disposal of waste. Tax rebates may be considered for manufacturers, importing and non-importing wholesalers to help withdraw targeted products from the market where necessary and to properly dispose of pharmaceutical waste.

- Besides LCS, all other stakeholders had a strong incentive to maintain a financial management system for the long-term growth and sustainability of their business.

  Incentives to implement basic financial systems are weakest amongst Licensed Chemical Sellers. Training in the purpose and implementation of basic financial management systems may strengthen their incentive to implement such systems.

- Importing and non-importing wholesalers have a weak incentive to select medicines for which there is greatest public health need. Expedited or assisted registration process for medicines for neglected disease conditions, and tax waivers for related imports, may improve wholesalers' incentives to select medicines in this category.

  The use of product information among caregivers should be designed to improve correct usage of medicines and attain better treatment outcomes. Dissemination of product information may encourage stakeholders to select medicines with better treatment outcomes.

Manufacturers, importers and LCS have a strong incentive to support social activities. However, the non-importing wholesalers have a weak incentive for supporting social activities. By virtue of their position in the supply chain it becomes rather difficult for them to have a strong incentive to support social activities.

The Way Forward

MeTA should organize a forum with all the relevant stakeholders within the supply chain and agencies that provide services within the relevant key needs areas as well as the regulatory bodies to discuss and formulate plans on the best way forward that will help align incentives within the supply chain.

MeTA should seek, with the stakeholders, the best way to share these findings with the general public and also how they can in the future organize such surveys to access their own standing.

MeTA should advocate for policies to help align stakeholder incentives that will address the key needs of interest within the supply chain.

MeTA, through the sharing of information can facilitate and help organise some technical support to the pharmaceutical wholesalers association to help improve on the practices of its members

6 Bibliography

Asenso Boadi, F. M., & Coast, J. (2009). “Using National Health Insurance Schemes to Finance Health Care in Ghana: Are the People Willing to Pay”,. *Ghana Policy Journal,* , pp. 1, 23-44.

Buabeng, K. O. (2010). *The Role of Pharmaceutical Sector in Malaria Control in Ghana, Doctor of Philosophy Dissertation.* Finland: University of Eastern Finland, Kuopio.

Center for Pharmaceutical Management. (2003). *“Access to Essential Medicines: Ghana”, Strategies for Enhancing Access to Medicines Program, Management Sciences for Health, Airlington, Virgina, United States.* Arlington, Virginia: Management Sciences for Health.

Grupper, M., Boateng, F., Amporful, E. and Binka, J. (2005) Improving Access to Medicines: The Case of Local Production and Greater Access to Medicines for Ghana, DFID Health Resource Centre, London, 70 pp. (n.d.).

Lalvani, P., Yadav, P., Curtis, K., & Bernstein, M. (2010). *Increasing Patient Access to Antiretrovirals.*

Management Science for Health, Arlington, Virginia, United States. *“Access to Essential Medicines: Ghana”, Strategies for Enhancing Access to Medicines Program.*

Ministry of Health. (2009). *WHO Pharmaceutical Situation Assessment – Level II – Health Facilities Survey in Ghana.* Accra: Ministry of Health, Ghana.

Rentmeester, C. A., & Garis, R. I. (2008). Rebates and Spread: Pharmacy Benefit Management Practices and Corporate Citizenship. *Journal of Health Politics, Policy and Law* , pp. 33(5), 943-963.

Seiter, A. and M. Gyansa-Lutterodt (2009) “The Pharmaceutical Sector in Ghana”, Policy Note, Ghana National Drugs Programme, Accra, Ghana. (n.d.).

7 Appendix

Appendix 1 Verification of Registration

Type of Facility	Advertized Product	Authorized Supplier	Difficult to Detect	FDB registration number	FDB registration procedure	Product Batch number/ Expiry date
Non Importing Wholesale/ **Retail**	25.00%	62.50%	12.50%	0.00%	0.00%	0.00%
Importing Wholesale	0.00%	38.46%	7.69%	23.08%	23.08%	7.69%
Importing Wholesale/ **Retail**	33.33%	66.67%	0.00%	0.00%	0.00%	0.00%
LCS	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Non Importing Wholesale	0.00%	0.00%	40.00%	60.00%	0.00%	0.00%
Manufacturer	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%

Appendix 2. Responses by Facility Type (%)

Questions		2	3	5a	5b	5c	6	7	8a	8b	9a	9b	10a	10b	11	12	13A	13B	14
Importer Wholesale/ Retailer	% Null Response	0%	0%	0%	0%	33%	0%	0%	0%	33%	0%	33%	67%	100%	100%	33%	0%	67%	0%
Importer Wholesaler	% Null Response	0%	0%	0%	8%	46%	8%	0%	0%	38%	0%	15%	0%	15%	8%	0%	0%	15%	0%
LCS	% Null Response	0%	0%	17%	17%	50%	0%	0%	67%	67%	67%	100%	67%	100%	67%	50%	50%	83%	33%
MAN	% Null Response	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33%	0%
Non Importer Wholesaler	% Null Response	0%	0%	8%	8%	23%	0%	0%	8%	46%	8%	31%	23%	62%	54%	0%	0%	62%	0%
Importer Wholesale/ Retailer	% Positive	100%	100%	67%	0%	0%	67%	100%	67%	33%	33%	33%	0%	0%	0%	33%	33%	33%	33%
Importer Wholesaler	% Positive	77%	77%	92%	31%	38%	69%	77%	77%	15%	31%	23%	85%	54%	62%	85%	69%	62%	77%
LCS	% Positive	83%	83%	83%	33%	33%	83%	50%	33%	17%	0%	0%	0%	0%	33%	50%	0%	0%	50%
MAN	% Positive	83%	83%	100%	100%	100%	100%	100%	100%	83%	100%	100%	100%	67%	100%	100%	83%	67%	100%
Non Importer Wholesaler	% Positive	92%	100%	77%	15%	31%	85%	77%	69%	23%	8%	8%	38%	23%	46%	54%	23%	23%	54%
Importer Wholesale/ Retailer	%Negative	0%	0%	33%	100%	67%	33%	0%	33%	33%	67%	33%	33%	0%	0%	33%	67%	0%	67%
Importer Wholesaler	%Negative	23%	23%	8%	62%	15%	23%	23%	23%	46%	69%	62%	15%	31%	31%	15%	31%	23%	23%
LCS	%Negative	17%	17%	0%	50%	17%	17%	50%	0%	17%	33%	0%	33%	0%	0%	0%	50%	17%	17%
MAN	%Negative	17%	17%	0%	0%	0%	0%	0%	0%	17%	0%	0%	0%	33%	0%	0%	17%	0%	0%
Non Importer Wholesaler	%Negative	8%	0%	15%	77%	46%	15%	23%	23%	31%	85%	62%	38%	15%	0%	46%	77%	15%	46%

Appendix 3. Responses by Facility Type cont'd 1

Questions		15A	15B	15C	15D	16	17A	17B	17C	18	19A	19B	20A	20B	20C	21	22	23
Importer Wholesale/ Retailer	% Null Response	0%	100%	33%	0%	33%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Importer Wholesaler	% Null Response	0%	69%	31%	23%	0%	8%	54%	62%	46%	0%	8%	8%	38%	8%	0%	0%	0%
LCS	% Null Response	50%	83%	100%	67%	33%	67%	100%	100%	83%	0%	0%	0%	0%	0%	0%	0%	0%
MAN	% Null Response	0%	17%	17%	83%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%
Non Importer Wholesaler	% Null Response	0%	77%	92%	8%	8%	0%	92%	92%	15%	0%	8%	0%	8%	0%	0%	0%	0%
Importer Wholesale/ Retailer	% Positive	0%	0%	0%	0%	33%	0%	0%	0%	0%	0%	67%	100%	33%	33%	100%	100%	100%
Importer Wholesaler	% Positive	31%	31%	31%	8%	85%	46%	46%	31%	0%	46%	54%	8%	15%	31%	77%	85%	100%
LCS	% Positive	0%	0%	0%	0%	50%	0%	0%	0%	0%	67%	83%	67%	83%	67%	83%	83%	83%
MAN	% Positive	67%	67%	83%	0%	83%	100%	100%	100%	0%	83%	67%	50%	67%	83%	100%	100%	100%
Non Importer Wholesaler	% Positive	8%	8%	8%	0%	46%	8%	8%	8%	0%	77%	69%	62%	46%	38%	92%	85%	100%
Importer Wholesale/ Retailer	%Negative	100%	0%	67%	100%	33%	100%	0%	0%	100%	100%	33%	0%	67%	67%	0%	0%	0%
Importer Wholesaler	%Negative	69%	0%	38%	69%	15%	46%	0%	8%	54%	54%	38%	85%	46%	62%	23%	15%	0%
LCS	%Negative	50%	17%	0%	33%	17%	33%	0%	0%	17%	33%	17%	33%	17%	33%	17%	17%	17%
MAN	%Negative	33%	17%	0%	17%	17%	0%	0%	0%	0%	17%	33%	50%	33%	17%	0%	0%	0%
Non Importer Wholesaler	%Negative	92%	15%	0%	92%	46%	92%	0%	0%	85%	23%	23%	38%	46%	62%	8%	15%	0%

Appendix 4 Responses by Facility Type cont'd 2

Questions		24	25	26	27	28	29	30	31	31A	31B	32	33	34	35	36	37	37B
Importer Wholesale/ Retailer	% Null Response	0%	0%	0%	0%	0%	0%	0%	0%	67%	67%	0%	0%	33%	67%	0%	33%	0%
Importer Wholesaler	% Null Response	0%	0%	0%	0%	0%	0%	0%	0%	23%	31%	0%	0%	15%	85%	0%	0%	0%
LCS	% Null Response	0%	17%	0%	0%	0%	17%	0%	0%	50%	50%	0%	0%	50%	50%	17%	17%	67%
MAN	% Null Response	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%
Non Importer Wholesaler	% Null Response	0%	0%	0%	0%	0%	0%	0%	0%	69%	85%	0%	0%	31%	62%	0%	0%	38%
Importer Wholesale/ Retailer	% Positive	100%	33%	33%	100%	100%	0%	100%	100%	33%	33%	100%	100%	67%	33%	67%	67%	67%
Importer Wholesaler	% Positive	100%	69%	77%	100%	77%	85%	92%	69%	77%	46%	100%	77%	85%	0%	100%	92%	92%
LCS	% Positive	67%	33%	17%	100%	100%	67%	100%	50%	50%	50%	100%	50%	50%	0%	83%	33%	33%
MAN	% Positive	100%	100%	100%	83%	100%	83%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%
Non Importer Wholesaler	% Positive	92%	62%	62%	62%	62%	62%	92%	23%	23%	15%	92%	62%	62%	8%	100%	54%	54%
Importer Wholesale/ Retailer	%Negative	0%	67%	67%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	33%	0%	33%
Importer Wholesaler	%Negative	0%	31%	23%	0%	23%	15%	8%	31%	0%	23%	0%	23%	0%	15%	0%	8%	8%
LCS	%Negative	33%	50%	83%	0%	0%	17%	0%	50%	0%	0%	0%	50%	0%	50%	0%	50%	0%
MAN	%Negative	0%	0%	0%	17%	0%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Non Importer Wholesaler	%Negative	8%	38%	38%	38%	38%	38%	8%	77%	8%	0%	8%	38%	8%	31%	0%	46%	8%

Appendix 5 Questionnaire Statistics

Questions	Total Responses	Positive responses	Negative responses	Nil Responses	% Positive	% Negative
2	41	35	6	0	85.37%	14.63%
3	41	36	5	0	87.80%	12.20%
5a	39	35	4	2	85.37%	9.76%
5b	38	14	24	3	34.15%	58.54%
5c	28	17	11	13	41.46%	26.83%
6	40	33	7	1	80.49%	17.07%
7	41	32	9	0	78.05%	21.95%
8a	36	29	7	5	70.73%	17.07%
8b	25	12	13	16	29.27%	31.71%
9a	36	12	24	5	29.27%	58.54%
9b	28	11	17	13	26.83%	41.46%
10a	32	22	10	9	53.66%	24.39%
10b	22	14	8	19	34.15%	19.51%
11	26	22	4	15	53.66%	9.76%
12	37	28	9	4	68.29%	21.95%
13A	38	18	20	3	43.90%	48.78%
13B	22	16	6	19	39.02%	14.63%
14	39	27	12	2	65.85%	29.27%
15A	38	9	29	3	21.95%	70.73%
15B	13	9	4	28	21.95%	9.76%
15C	17	10	7	24	24.39%	17.07%
15D	28	1	27	13	2.44%	65.85%
16	37	26	11	4	63.41%	26.83%
17A	36	13	23	5	31.71%	56.10%
17B	13	13	0	28	31.71%	0.00%
17C	12	11	1	29	26.83%	2.44%
18	22	0	22	19	0.00%	53.66%
19A	41	25	16	0	60.98%	39.02%
19B	39	27	12	2	65.85%	29.27%
20A	40	19	21	1	46.34%	51.22%
20B	35	18	17	6	43.90%	41.46%
20C	40	19	21	1	46.34%	51.22%
21	41	36	5	0	87.80%	12.20%
22	41	36	5	0	87.80%	12.20%

Questions	Total Responses	Positive responses	Negative responses	Nil Responses	% Positive	% Negative
23	41	40	1	0	97.56%	2.44%
24	41	38	3	0	92.68%	7.32%
25	40	26	14	1	63.41%	34.15%
26	41	26	15	0	63.41%	36.59%
27	41	35	6	0	85.37%	14.63%
28	41	33	8	0	80.49%	19.51%
29	40	28	12	1	68.29%	29.27%
30	41	39	2	0	95.12%	4.88%
31	41	24	17	0	58.54%	41.46%
31A	24	23	1	17	56.10%	2.44%
31B	21	18	3	20	43.90%	7.32%
32	41	40	1	0	97.56%	2.44%
33	41	30	11	0	73.17%	26.83%
34	31	30	1	10	73.17%	2.44%
35	11	2	9	30	4.88%	21.95%
36	40	39	1	1	95.12%	2.44%
37	39	29	10	2	70.73%	24.39%
37B	32	29	3	9	70.73%	7.32%
Total		**1214**	**535**	**383**		