



# AN ASSESSMENT OF IMPEDIMENTS TO COMPETITION IN THE PHARMACEUTICAL SECTOR IN JAMAICA

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**Prepared by:**

The Fair Trading Commission (FTC)

**In collaboration with:**

The Consumer Affairs Commission (CAC) and The University of Technology (UTECH)

**Funded by:**

The International Development Research Centre (IDRC), Canada

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*<http://www.jftc.com>*

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**LIST OF ACRONYMS**

CAC	Consumer Affairs Commission
CIMS	Case Information Management System
CPA	Caribbean Pharmacy Association
FCA	Fair Competition Act
FTC	Fair Trading Commission
GOJ	Government of Jamaica
HCL	Health Corporation Limited
IDRC	International Development Research Centre
JADEP	Jamaica Drugs for the Elderly Program
JAPO	Jamaica Association of Pharmacy Owners
JCC	Jamaica Chamber of Commerce
JIS	Jamaica Information Service
KMA	Kingston Metropolitan Area
MAJ	Medical Association of Jamaica
MoH	Ministry of Health
NHF	National Health Fund
PCJ	Pharmacy Council of Jamaica
PIOJ	Planning Institute of Jamaica
PSJ	Pharmaceutical Society of Jamaica
RPM	Resale Price Maintenance
SLC	Survey of Living Conditions
STATIN	Statistical Institute of Jamaica
UTECH	University of Technology
UWI	University of the West Indies

## EXECUTIVE SUMMARY

### Background

In August 2005, the Ottawa-based International Development Research Centre (IDRC) issued a call for proposals to study competition issues in the distribution sector in developing countries. The Fair Trading Commission (FTC) in Jamaica submitted a proposal to study impediments to competition in the distribution of pharmaceuticals in Jamaica.

### Rationale for Studying the Pharmaceutical Sector

Despite the obvious importance of the sector to the economy, there has not been any study aimed at assessing the extent to which public and private resources employed to the sector are being efficiently allocated in Jamaica. There is evidence, however, of inefficient allocation of resources in the distribution of pharmaceutical products as a study available at Industry Canada (2004), a Department of the Canadian Government, indicates that distributors of pharmaceuticals in Jamaica operate generally on a 25 to 30 percent mark up, with retailers operating by up to 80 percent mark up.

### Research Methodology

Through a set of four surveys conducted at different levels of the distribution chain we map and characterize the structure of the pharmaceutical industry, paying attention to the distribution of information and pharmaceuticals in the industry. Surveys were conducted among physicians (sample size of 242), pharmacies (sample size of 36), distributors (sample size of 14) and final consumers of prescription medication in Jamaica (sample size of 1,030).

### Complaints in the Health Care Industry

This chapter summarises documented complaints about the health care industry from a variety of sources. It shows that complaints are mainly reported to the CAC and FTC; are mainly made by final consumers; and are predominantly made against private retailers of health care products. Most of the complaints concern matters for individual consumer redress. Of the few complaints which raise competition concerns, misleading representations and discriminatory practices are the primary behaviour reported.

### Perceptions of Substitutability

We capture the attitudes and opinions of major stakeholders about the substitutability of prescription medication. We uncover evidence to suggest that consumer preference for branded and generic prescription medication is related to relative prices, reputation and budget constraints. After controlling for these factors, it is shown that over 77.6 percent of consumers have a strict preference for branded medication. For two reasons, however, one must be cautious in using this result to make inferences about the substitutability between innovator and generic medication. Firstly, some branded drugs are also generic medication; secondly, the consumer's perception of the substitutability of branded and generic medication might be highly subjective since therapeutic relief may not be easily discernible to the final consumer due to characteristics of medicinal products.

Notwithstanding the above, the chapter highlights mixed support from physicians and pharmacist for innovator medication; some 29.6 percent of physicians and 33.4 percent of pharmacists do not hold the opinion that generics are therapeutically equivalent to innovator medication.

The most objective assessment of the therapeutic equivalence of innovator and generic medication is the scientific testing of drugs in four pharmacological classes of antihypertensive distributed in Jamaica. The test finds evidence of differences in the therapeutic effects of innovator and some generic drugs in two of these classes. Despite the fact that these results can not be generalised to make inferences about the therapeutic equivalence of drugs used to treat other ailments in Jamaica, they, along with the opinion of physicians and pharmacists, serve to refute claims that the strong consumer preference for branded drugs (in Table 5.9) can be explained entirely by irrational consumer perceptions of prescription medication.

The results of the testing, however, clue us into the possible nature of information asymmetry in Jamaica. They demonstrate that while all generic antihypertensive drugs tested offered the relief they were designed to produce and so would pass the screening of

the MoH, some generic drugs in two of the four classes of drugs tested did not provide relief as quickly as the innovator counterpart did, and so might be shunned by final consumers, physicians or pharmacists. There is no inherent problem with having a market with products of varying qualities as consumers would base their product selection pattern on their marginal willingness and abilities to pay for higher quality products.

A problem may occur, however, whenever consumers find it difficult to evaluate the qualities of the products, as is the case in the pharmaceutical sector. The problem is that the information asymmetries may prevent effective generics from competing with innovator products. In the pharmaceutical sector, it is known that the innovator drug is the standard of quality; the issue is not whether the innovator is effective, the issue is whether the generic is as effective as the innovator. There is a real danger, therefore, that consumers/ physicians who find it difficult/ costly to evaluate the qualities of generics might develop a strong preference for innovator medication, especially for the consumer who has had a bad experience with one generic medication in the past and decided to shun all generic medication.

The surveys reveal that consumers primarily receive information from physicians; further physicians and pharmacists receive information mainly from drug manufacturers or their representatives (see Table B-12 and Table B-19 for physicians' sources of information and Table C-29 through Table C-31 for pharmacists' sources of information). It is therefore relatively cheaper for physicians and pharmacists to evaluate the properties of drugs which are heavily marketed by their manufacturers compared to drugs which are not. The current information structure biases demand toward the manufacturers of innovator drugs as they tend to host seminars and market their products through sales (drug) representatives. In order to promote greater competition, a system must be devised which would make it relatively cheap for consumers, physicians and pharmacists to evaluate drugs which do not have the benefit of a large sales (marketing) force.

### The Information Structure of the Pharmaceutical Sector

The chapter highlights the information structure of the pharmaceutical sector. It reveals the high degree of information asymmetries among consumers in pharmaceutical sector as it shows that a non-negligible proportions of consumers are without information that would be relevant to their decision making process. For instance, approximately 38.9 percent of consumers have never heard of the term ‘generic medication’ and approximately 40.4 percent could not name any place they could go to seek redress for problems which they might encounter in the pharmaceutical sector. This level of ignorance is greater among the youngest and oldest consumers; consumers living in the Rural Areas; consumers living in households with a combined monthly income below JMD 20,000; and persons who do not have access to the Internet.

It is also evident that physicians are the most important vehicle for disseminating information to the public as 55.6 percent of consumers get most of their information about the health care sector through physicians and 77.4 percent believe that physicians provide the most credible medical advice.

Some degree of heterogeneity in the information provided by various sources is also observed. Specifically, 93.1 percent of consumers believe that similar information is provided by their two most credible sources of information but only 72.9 percent of consumers believe that their second and third ranked most credible sources of information provide similar information.

The ignorance of consumers highlighted in this chapter could be exploited by firms to acquire, maintain and extend market power.

### Competitive Issues in the Pharmaceutical Sector

This chapter assesses the possible sources of (active) market power in the pharmaceutical sector. Firstly, the chapter highlights the degree of interconnectedness among the various players at various levels of the supply chain. Approximately seven out of fourteen distributors have business relationships with other distributors; seven out of thirty six

pharmacies indicate that they have relationships with other players in the industry and 5 out of 241 physicians indicate that they have relationships with other players. None of the stated relationships suggests that any of these relationships are being used to facilitate anticompetitive practices.

Secondly, we assess the degree to which the pharmaceutical sector is susceptible to collusive conduct. The information extracted from the survey suggests that although Trade Associations provide valuable services to their members, they might be susceptible to facilitating collusive conduct. The FTC should express this concern to Associations and inform them of ways in which they can pre-empt firms from using them to engage in anticompetitive practices.

Lastly, the study finds some evidence of resale price maintenance at the manufacturing level and tied-selling at the distribution level. We find it unlikely that the tied-selling is having an undue influence on competition in the sector and the effect of RPM on competition could not be ascertained from the data collected. The effect of RPM should be examined further by the FTC.

The chapter found no evidence to suggest that firms are engaged in anticompetitive practices.

#### An Assessment of the Government's Strategy

Five separate but related performance ratios were defined, calculated and interpreted for NHF and JADEP, to assess the effectiveness of the Government's latest foray into the pharmaceutical industry. The results indicate that reasonable success was achieved by the Government in promoting awareness, as approximately eight out of every ten eligible respondents are aware of each program.

On a positive note, individuals who are most in need of assistance (marginal consumers) are being served by the NHF and JADEP. There is a danger, however, that the benefits from serving the neediest Jamaicans (marginal consumers) could be offset by the loss in

the revenue of private business as some of their customers (infra-marginal consumers) are diverted to the Government's programs.

The ratios point to a low usage of NHF and JADEP among eligible consumers. Since everyone needs therapeutic relief at some point in time, a low usage of the programs suggests that consumers are accessing alternative means of acquiring relief. Further, these alternative means must offer consumers greater net benefits than NHF and JADEP do. The GOJ must review the NHF and JADEP programs if it is to engender greater acceptance and usage among marginal consumers. The analyses above suggest two areas which are ripe for scrutiny: (i) the level of acceptance of JADEP cards at pharmacies and (ii) the set of drugs covered by the NHF and JADEP programs.

### Recommendations

Based on the above, it is evident that policy makers need to reduce the degree of information asymmetries to mitigate the inefficiencies in the pharmaceutical sector.

The FTC submits the following proposals as a means of addressing the information asymmetries.

1. Policy-makers should establish or rehabilitate mechanisms for disseminating information to consumers.
2. The FTC should develop and promote guidelines outlining best practices for Trade Associations as they relate to the sharing of information among members through those Associations.
3. Policy-makers should establish or rehabilitate mechanisms designed to disseminate information to, and acquire information from healthcare professionals.
4. The MoH should establish a drug certification program aimed at compiling a list of drugs which meet minimum standards along pre-specified dimensions.

The following proposals are advanced by wholesalers (distributors):

5. Policy-makers should take steps to reduce the lengthy registration process at the MoH.
6. Policy-makers should harmonise duty laws and publicise classification of intravenous fluids to ensure that duty is levied uniformly across importers of intravenous fluids.

The following proposals are advanced by retailers (pharmacies):

7. Policy-makers should review policy on the treatment of drugs classified as over the counter (OTC).
8. Policy-makers should review the classification of drugs distributed in Jamaica.
9. Policy-makers need to administer the JADEP and NHF programs more efficiently.
10. Policy-makers need to improve their monitoring of drugs being distributed in Jamaica as generic drugs are being distributed while the counterpart innovator drugs is still on-patent.
11. The MoH needs to provide more information generally.



## **1. INTRODUCTION**

### **1.1 Background**

In August 2005, the Ottawa-based International Development Research Centre (IDRC) issued a call for proposals to study competition issues in the distribution sector in developing countries. The IDRC offered ten grants of up to CAD 50,000 each to support research efforts by competition authorities. The Fair Trading Commission (FTC) in Jamaica submitted a proposal to study impediments to competition in the distribution of pharmaceuticals in Jamaica, specifically those prescription medications that are used in the treatment of the following five chronic ailments: arthritis, asthma, diabetes, hypertension and high cholesterol.

### **1.2 Rationale for Studying the Pharmaceutical Sector**

Despite the obvious importance of the pharmaceutical sector to the economy, there has not been any study aimed at assessing the extent to which public and private resources employed to the sector are being efficiently allocated in Jamaica. The sector is characterised by information asymmetries, and as evidenced by the level of funding provided by the Government of Jamaica (GOJ), is one of significant importance to the Jamaican people. For the 2004/2005 and 2005/2006 Financial Years, the GOJ allocated amounts of JMD 14.9 billion and JMD 12.1<sup>2</sup> billion respectively, to the Ministry of Health (MoH). The MoH is responsible for ensuring the provision of an adequate, effective and efficient health service for the population of Jamaica through its 23 hospitals and more than 350 health centres. A study available from Industry Canada (2004), a Department of the Canadian Government, indicates that distributors of pharmaceuticals in Jamaica operate generally on a 25 to 30 percent mark up, with retailers marking up medication by up to 80 percent. This incidence of double marginalisation suggests that market power is concentrated at the distribution and retail levels of the supply chain. An understanding of the sources of market power is therefore required to improve the efficiency with which pharmaceuticals are distributed in Jamaica.

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<sup>2</sup> The weighted average rate of exchange between the US Dollar and the Jamaican Dollar (JMD) at April 1, 2005 and April 1, 2006, was JMD 1:USD 61.4028 and JMD1:USD65.3793, respectively.

### 1.3 Objectives of the Study

The extent of information asymmetries<sup>3</sup> is an obvious candidate for the source of market power that exists in the distribution of pharmaceuticals and is therefore an area of concern for the Fair Trading Commission. The objective of the study is to identify informational asymmetries and examine the extent to which business enterprises could exploit them to acquire, maintain or extend market power. The study will also recommend measures to address inefficiencies in the sector. Through a set of four surveys conducted at different levels of the distribution chain- distributors, physicians, pharmacies and final consumers, we map and characterize the structure of the pharmaceutical industry, paying attention to the distribution of information and pharmaceuticals. Our analysis bolstered with results from a scientific assessment of the therapeutic equivalence of four classes of anti-hypertensive medication distributed in Jamaica. Since a significant number of the prescription medication consumed in Jamaica are imported, and the fact that most importers in Jamaica are distributors, it was decided that focus would be placed on the part of the supply chain from the level of distributor/importer to the final consumer<sup>4</sup>.

### 1.4 Outline of the Study

We first describe the framework within which our four surveys were conducted. We then summarise complaints about the healthcare industry as well characterise perceptions of consumers, physicians and pharmacists regarding the substitutability between innovator and generic products; as well report the results of therapeutic equivalence tests of antihypertensive conducted by UTECH. The information structure of the pharmaceutical sector and the competitive issues which arise in the distribution of pharmaceutical products will be highlighted, and an assessment of the impact on social welfare of Government's intervention in the pharmaceutical industry focusing mainly on the

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<sup>3</sup> Information asymmetry is a condition in which at least some relevant information is known to some but not all parties involved. It causes markets to become inefficient, since all the market participants do not have access to the information they need for their decision making processes.

<sup>4</sup> For this study, the terms wholesalers and distributors are used interchangeably.

National Health Fund (NHF) and the Jamaica Drugs for the Elderly Program (JADEP) on consumer welfare, will follow. The study concludes with recommendations for improving the efficiency with which pharmaceutical products are distributed in Jamaica.

This study was conducted in collaboration with the University of Technology (UTECH) and the Consumer Affairs Commission (CAC). This document represents the product of the study.

## 2. LITERATURE REVIEW

Market power of business enterprises is the central pre-occupation of competition law enforcement authorities.<sup>5</sup> While having market power is not in violation of the Jamaican competition law- the Fair Competition Act (FCA), the Act limits the actions which businesses may take to acquire, maintain and extend market power. For purposes of the discussion, we refer to *active* market power as that which accrues to businesses through their own deliberate conduct. Similarly, we refer to *passive* market power as that which accrues to businesses due to actions (or inactions) of independent parties. Competition law is designed to curtail the abuse of active market power which poses a threat to the competitive environment. While the focus on active market power is justified, there is little reason to suspect that passive market power is any less threatening to competition. Indeed, it is well established that the consumers' ability (and willingness) to shun unreasonably high priced products is an important feature of competitive markets. When consumers lose this ability because of say, ignorance of lower priced alternatives, firms are able to abuse passive market power and maintain prices above competitive levels. Information asymmetries in a market can be exploited by firms to acquire, maintain and extend market power. Since the information structure of the market could facilitate the abuse of both active and passive market power, understanding the information structure is of fundamental importance in promoting competition in markets.

In what follows, we organise the literature around research which highlight the role of information in market outcomes.

### 2.1 Information and Passive Market Power

The pharmaceutical sector has attracted the attention of both practitioners and academic economists alike. For practitioners, the fundamental preoccupation is how to make pharmaceuticals accessible to more final consumers, given the intimate link between access to pharmaceuticals and the quality of the consumer's life. This problem is

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<sup>5</sup> Market power is used throughout this document to refer to a sufficiently high degree of market power that allows the conduct of business enterprises to influence the competition process in the market.

approached in a variety of ways across jurisdictions. For example, the Government of Jamaica (GOJ) took an interventionist approach to the issue by forming the Health Corporation Limited (HCL) in 1994 to distribute and retail a wide variety of pharmaceuticals at subsidized prices to final consumers. The interventionist approach taken by the GOJ to increase access to pharmaceuticals is assessed in Chapter 8.

Policy makers in the United States (US) took a structural approach in attempting to resolve the problem by passing the Waxman-Hatch Act in 1984 which makes it easier for manufacturers of the relatively cheaper generic substitutes to enter the market. The structural approach taken by the US policy makers to influence the price of pharmaceuticals offers academic economists a “natural experiment” in which to empirically verify settled economic theories of the relationship between price and the number of sellers in a market.<sup>6</sup>

Seminal research in this area was conducted by Caves, Whinston and Hurwitz (1991), Frank and Salkever (1992) and Grabowski and Vernon (1992, 1996). The results of these studies reveal price trends which are inconsistent with the longstanding theories of price adjustments in the presence of increased competition. They conclude that the price of the innovator and price of generic products respond differently to entry of additional generic products. Frank and Salkever (1997) demonstrate that whilst the prices of generic products decline substantially as additional generic firms enter the market, the price of the innovator product shows anaemic decline; and in some instances the price of the innovator product increases subsequent to entry by generic products. Frank and Salkever (1992) developed a model to explain the differing price responses of innovator and generic products to increased entry of generic products. They demonstrate that the observed responses are consistent with a market in which the consumers were segmented into two groups based on the sensitivity of their demand to prices. The relative sizes of

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<sup>6</sup> The two most popular paradigms of competition are Bertrand and Cournot competition. Under Bertrand competition, where firms compete on prices, equilibrium price falls from monopoly price to competitive prices with the entry of only one firm. Under Cournot competition, where firms compete on capacities, equilibrium price falls continuously from monopoly levels to competitive levels as additional firms enter the market. In either theory, therefore, price tends to fall or remain unchanged as additional firms enter the market.

these groups determined the overall expenditures on pharmaceuticals; the greater the size of “price-sensitive” segment, the lower the overall price of pharmaceuticals.

In contrast to the empirical studies mentioned above, research by Wiggins and Manness (2004) examined the prices for anti-infectives. They demonstrate, as contemplated by traditional economic models, that the prices of the innovator products decline substantially as generic firms enter the market. The authors offer a couple of potential reasons for the discrepancy between the results of their work and results from previous studies. Firstly, their study uses data from sellers of all anti-infectives and covers a longer period than the period covered in the earlier studies. Secondly, the authors point out that the demand for anti-infectives may be more price sensitive than the demand for other drugs in the pharmaceutical industry, therefore limiting the possibility of extrapolating in respect of these results to these drugs.

One way of reconciling the seemingly conflicting results in the existing body of research in the area is to surmise that the price differential between innovator and generic drugs persists in the short-run, but dissipates in the long run. While the discussions above are confined to the manufacturers’ prices to distributors, a similar price disparity is observed in retail prices to final consumers. As the debate into the characterization of responses of innovator and generic manufacturers’ prices to entry of generic products continues, we are not aware of any substantive research that explains price differentials which exist between innovator and generic drugs at the retail level of the industry. There is little reason why the “segmented-market hypothesis” could not be used to explain the price differential at the retail level. If we are to use the existing body of knowledge, therefore, we could posit that the level of overall expenditures on pharmaceuticals is inversely related to (i) the relative size of the “price-sensitive” segment and (ii) the number of generic products in the market. Further, overall expenditures are directly related to the time taken for pharmaceutical prices to adjust to “the long-run equilibrium level”. Of course, interest in this line of enquiry extends beyond academic economists. Government in both developed and developing nations continue to devote considerable time and effort to the vexing issue of health care expenditures. If we accept that benefits of encouraging

generic entry, in terms of lower innovator prices, could be realized in the long-term only, then policy makers would be keenly interested in exploring policies whose benefits could be realized in the short-term, given the urgent nature of the therapeutic relief which pharmaceuticals offer.

A potential short-run solution could be sourced from parallel developments in the theory of monopolistically competitive markets. Monopolistic competition contemplates a market structure whereby members of a “large” group of firms selling differentiated products compete with each other while individual firms retain market power. The monopolistically competitive market structure was conceived independently in the 1930s by economists Edward Chamberlin and Joan Robinson but it was not until the 1980s that the literature repositioned this market structure from the realm of theoretical curiosity to one of practical relevance. Since the conception of this market structure, there has been much debate about the possible source through which firms are able to maintain market power in the face of potentially brutal competition. The effect of asymmetric consumer information on equilibrium prices was first outlined by Stigler (1961). Important research into the area by Wolinsky (1986), who explicitly models a mechanism through which consumers gather information, offer an explanation for the source of market power in these markets. He builds on previous research into monopolistically competitive markets by Hart (1985) and attributes the market power of firms to the ignorance of consumers. He theorises that if a consumer is unaware of which variety of the product is most suited to his taste, and it is costly for him to acquire this information, then he will not necessarily compare all the varieties of the product prior to making a purchase; that is, he will make his purchase based on knowledge of a limited number of varieties regardless of the actual number available on the market. The proportion of ‘informed’ consumers would determine the degree to which firms are able to set prices above competitive levels. The greater the proportion of informed consumers, or alternatively the lower the cost of information acquisition, the closer prices will be to competitive levels.

Research into this line of enquiry was extended by Harriott (2005) who demonstrates the importance of simultaneously modelling information acquisition and information dissemination, in terms of furthering our understanding of the nature of markets with asymmetric information. The main point of his research is that whenever there is asymmetric information in a market, there will always be an incentive for the uninformed to acquire information and consequently incentives for the informed to disseminate information. To understand these markets, one must explicitly take account of the information acquisition and dissemination mechanisms, as failing to do so might eliminate important interaction effects between the two mechanisms on the market. He demonstrates this point in making a contribution to the on-going debate on the effect of advertising on competition. In an attempt to explain the source of market power for firms in a monopolistically competitive market, Joan Robinson suggested that firms use persuasive advertising to manipulate the preferences of consumers and unduly attach consumers to their products. Joan Robinson therefore holds the view that advertising has anticompetitive effects on the market. Harriott counters this view by showing that advertising in monopolistic markets has pro-competitive effects since advertising essentially subsidizes the costs of information to consumers; and it is consumers' ignorance which is firms' source of (passive) market power.

## **2.2 Information and Active Market Power**

Lande and Marvel (2000) identify agreements to obstruct information channels to consumers as, *inter alia*, a form of collusive conduct. In what they describe as a form of "Type III" collusion in which firms agree to change the rules of competition, rival firms can gain or maintain market power through agreements to limit advertising by cartel members or agreeing to boycott third parties who supply information to consumers.<sup>7</sup>

Further, the construction of information channels between competing firms has been identified as a facilitating device for implementing other forms of collusive behaviour. Kaplow and Shapiro (2007) provide an extensive review of the theoretical underpinnings

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<sup>7</sup> See Lande and Marvel (2000) for a review of cases involving these and other forms of collusive strategies.



of competition law. They point out that there are five key elements for sustaining collusive agreements: (i) consensus, (ii) detection, (iii) punishment, (iv) inclusion and (v) entry barriers. Consensus refers to the fact that firms need to agree on which outcome to collude around; detection refers to mechanisms through which firms are able to discover parties that cheat on the agreed upon action; and punishment refers to credible sanctions to be imposed on firms which cheat so as to discourage them from cheating. Inclusion refers to a way of including as many firms as necessary so that non-participating firms do not frustrate the agreement; and entry barriers refers to means of limiting competition from potential entrants. The first element of collusion, i.e. consensus, requires the development of a communication channel between firms. Information exchange between firms is therefore an important element of collusive conduct which invariably leads to market failures.

There is evidence of information asymmetries in the health care industry in Jamaica. An important research project carried out by Gossell-Williams (2005) captures the attitude of physicians in Jamaica toward generic and innovator medication, revealing that there is no consensus among physicians regarding the substitutability of generics and innovators. The extent to which this attitude among physicians reflects the opinion of other stakeholders such as pharmacists and consumers is unknown. It is hoped that this study will fill this gap.

The above discussion underscores the view that an examination of the information landscape in a market is an important first step in assessing the extent of competition within it. It also suggests that the mechanism for either sending or acquiring information is ripe for targeting with informed policy interventions.

In Chapter 3, we describe the framework within which the four surveys, targeted at consumers, physicians, wholesalers and retailers were conducted. This is followed by a summary of complaints about the healthcare industry which were compiled from various sources and are presented in Chapter 4. Perceptions of consumers, physicians and pharmacists regarding the substitutability between innovator and generic products- and

results of therapeutic equivalence tests of anti-hypertensive are outlined in Chapter 5; and the major findings of this study are presented in the remaining chapters.

In Chapters 6 and 7 we respectively highlight the information structure of the pharmaceutical sector and the competitive issues which arise in the distribution of pharmaceutical products; and in Chapter 8, we assess the impact of Government's intervention in the pharmaceutical industry focusing mainly on the National Health Fund (NHF) and the Jamaica Drugs for the Elderly Program (JADEP). The study concludes in Chapter 9 with recommendations for improving the efficiency with which pharmaceutical products are distributed in Jamaica.

### 3. RESEARCH METHODOLOGY

This chapter outlines the methodology used to carry out the surveys. This quantitative approach is used to explore the underlying behaviour and attitude of Jamaicans toward prescription medication ( $\mathbf{R_x}$ ).

#### 3.1 Consumer Survey

##### 3.1.1 Sampling

A proportionate *stratified random sampling* technique is used in this survey. The population is defined as “persons eighteen years and older who have purchased prescription drugs in the preceding six months and are suffering from chronic ailments.”

Persons in the following categories are excluded from the population because of the termination of interviews: (i) individuals whereby “someone else completely decides on the type of medication bought”; and (ii) individuals whereby “prescription medication purchased is for others only.”

A number of assumptions were made in deriving an estimate of the population as defined, given the fact that the body of research conducted in Jamaica shows no previous work in this area. The Survey of Living Conditions (SLC), a publication prepared jointly by the Planning Institute of Jamaica (PIOJ) and the Statistical Institute of Jamaica (STATIN), reports on the incidence of chronic ailments in Jamaica. Data from the SLC (2002) indicate that:

- i) Reported illnesses by regions for respondents in the Kingston Metropolitan Area (KMA), Other Towns, and Rural Areas, were 10.5 percent, 12.3 percent, and 13.7 percent respectively.
- ii) Some 51.2 percent in the KMA, 44.9 percent in the Other Towns and 50.1 percent in Rural Areas indicated that their illnesses are of a chronic (recurrent) nature. The concept of this parameter is a *flow* rather than a *stock* and corresponds closely to the six month cut off screen in the consumer questionnaire.

- iii) The distribution of household members for KMA, Other Towns, and Rural Areas was 30.3 percent, 16.7 percent and 53.0 percent respectively.
- iv) Approximately 34.7 percent of household members in KMA, 39.1 percent in Other Towns and 39.7 percent in Rural Areas were estimated to be under 18 years of age; a linear adjustment of statistical distribution published by STATIN.
- v) STATIN estimated that the population as at 2002 was 2,621,500 persons.

The size of the population of interest is estimated based on the foregoing; the results are summarised in Table 3.1 below.

**Table 3.1 Determination of Population Size**

Region	Number of Persons
<b>KMA (30.3 % of total population)</b>	
(i)Population	794,315
(ii)Adult Population <sup>a</sup> [65.3 % of line (i)]	518,687
(iii)Adult Population Reporting Illnesses [10.5 % of line (ii)]	54,462
(iv)Adult Population with Chronic Illnesses [51.2 % of line (iii)]	27,885
<b>Other Towns (16.7 % of total population)</b>	
(v)Population	437,790
(vi)Adult Population <sup>a</sup> [60.9 % of line (v)]	266,614
(vii)Adult Population Reporting Illnesses [12.3% of line (vi)]	32,794
(viii)Adult Population with Chronic Illnesses [44.9% of line (vii)]	14,724
<b>Rural Areas (53.0 % of total population)</b>	
(ix)Population	1,389,395
(x)Adult Population <sup>a</sup> [60.3 % of line (ix)]	837,805
(xi)Adult Population Reporting Illnesses [13.7 % of line (x)]	114,779
(xii)Adult Population with Chronic Illnesses [50.1 % of line (xi)]	57,504
<b>All Jamaica (100.0 %)</b>	
Total Population	2,621,500
Total Adult Population <sup>a</sup>	1,623,106
Total Adult Population Reporting Illnesses	202,035
Total Adult Population with Chronic Illnesses	100,113

Notes:

- a. Adult population is defined as the population older than 18 years.

Thus the population size is estimated at 100,113; comprising 27,885 from the KMA, 14,724 from Other Towns and 57,504 from Rural Areas.

### Sample Size Calculation

For a given margin of error and level of confidence, the formula for calculating the sample size ( $n$ ) is as follows:

$$n = \left( \frac{z}{e} \right)^2 \hat{p}(1 - \hat{p})$$

where

$n$  is the sample size needed to have a given margin of error

$z$  is the z-value associated with the desire confidence level

$e$  is the margin of error

$\hat{p}$  is the estimated sample proportion

A Finite Population Correction (FPC) factor is used to account for the increased precision of relatively larger samples. The adjusted sample size ( $n'$ ) when considering the FPC factor is given as:

$$n' = \frac{n}{1 + \frac{n}{N}}$$

where

$n'$  is the sample size after adjusting for the FPC factor

$n$  is the unadjusted sample size

$N$  is the population size

The consumer survey is designed to generate estimates of population parameters with a 95% confidence level ( $z = 1.96$ ), a margin of error of  $\pm 3\%$  ( $e = 0.03$ ), and a conservative estimate for the population parameter of 50% ( $\hat{p} = 0.50$ ). Further we have determined in the previous section the population size ( $N$ ) is 100,113 persons. Given the data above, the adjusted sample size is calculated as  $n' = 1,056$ . The distribution of the

sample across the regions is informed by the structured listing of towns falling in the respective regions as used by STATIN. The adjusted sample size of 1,056 is apportioned across the three regions as follows: 294 persons in KMA, 155 persons in Other Towns and 607 persons in Rural Areas. While no formal stratification was attempted beyond the regional level, the STATIN list of towns falling into each category allowed an allocation of quotas to each parish.

### 3.1.2 Fieldwork

The survey was conducted during the period June 22 to June 29, 2006, by twenty-two interviewers who worked alongside six supervisors. Despite the efforts of the Consumer Affairs Commission (CAC) to have all interviewers assembled and trained before going into the field, there were last minute withdrawals which necessitated minor adjustments to the original plans, such as the training of new interviewers over a shortened time period, increased individual quotas and additional days to complete the survey. A total of 1,030 useable interviews were completed.<sup>8</sup>

### 3.1.3 Precision of Parameter Estimates

The accuracy of the sample in representing the true parameters is likely to be impacted by sampling and non-sampling errors. Given this sample size, there is a 0.95 probability that the true population proportion will be within 3 percentage points of the estimates from the consumers' survey. This  $\pm 3\%$  margin of error is attributable solely to sampling errors. Non-sampling errors are likely to arise from:

- Idiosyncratic interpretation of survey questions by respondents;
- Variations in interviewer technique;
- Interviewee non-response to questions;
- Coding errors; and
- Data entry errors.

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<sup>8</sup> Twenty six completed questionnaires were discarded because interviewers erroneously failed to exclude respondents based on screening questions located at the beginning of the questionnaires.

While no specific efforts were made to quantify or correct the magnitude of non-sampling error, great care was applied to avoid and minimize these errors at the source.

#### 3.1.4 The Instrument

The consumer survey was conducted with the use of a structured questionnaire. The questionnaire was designed by the Technical Staff of the Fair Trading Commission (FTC) and submitted to the CAC for administration. Affixed to each questionnaire was a request for participation and a confidentiality clause. All interviewers were specifically trained prior to field engagements. A copy of the questionnaire is included as APPENDIX E.

#### 3.1.5 Editing and Coding

Coding of the responses was carried out by the CAC. Each response (and non-response) was given a numerical value in order to simplify the process of data entry and analysis.

#### 3.1.6 Data Entry and Analysis

Data entry was completed by the CAC using Microsoft Excel 2002.<sup>9</sup> A detailed examination of the data was carried out by the FTC; this included a manual comparison of the physical questionnaire with the data entered.

Data analysis was carried out by the FTC using Stata version 9.<sup>10</sup> The study allowed for adequate segmentation of the market in terms of variables such as age, gender, and location of residence. This report provides analyses, interpretations and recommendations based on the information gathered from the Consumer Survey.

### 3.2 Physician Survey

#### 3.2.1 Sampling

The survey uses a *stratified random sampling* technique. The population is defined as “individuals licensed to practice medicine in Jamaica.” We acquired the Jamaica Gazette

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<sup>9</sup> Microsoft Excel is a registered product of the Microsoft Corporation.

<sup>10</sup> Stata is a registered product of the StataCorp LP.

[Registrar General (2004)] containing the list of registered physicians in Jamaica as at November 10, 2004, stratified according to parish location of private practice. A sample of 242 respondents was selected, comprising approximately 10 percent of each stratum identified. Table 3.2 below presents the distribution of the sample across the various strata. A total of 242 interviews were completed.

**Table 3.2 Registered Physicians, by Parish of Private Practice**

<b>Parish</b>	<b>Population</b>	<b>Share of Population (%)</b>	<b>Sample (10.0%)</b>
Kingston & St. Andrew	1,543	64.1	154
St. Thomas	16	0.7	2
Portland	36	1.5	4
St. Mary	25	1.0	3
St. Ann	89	3.7	9
Trelawny	17	0.7	2
St. James	220	9.1	22
Hanover	20	0.8	2
Westmoreland	67	2.8	7
St. Elizabeth	44	1.8	4
Manchester	108	4.5	11
Clarendon	62	2.6	6
St. Catherine	160	6.6	16
"Overseas"	2	0.1	0
<b>TOTAL</b>	<b>2,409</b>	<b>100.0</b>	<b>242</b>

Source: Registrar General (2004).

Respondents who have direct relationship with or have relatives associated with a marketing firm, market research firm, public relations firm, or advertising firm, were eliminated from the sample. Respondents were also eliminated if they had participated in any research survey in the preceding three months or if they had not prescribed drugs in the said period.

### Location

Physicians were selected from all parishes across the island. It is important to note that the addresses used in the Gazette are not necessarily representative of the address at which the physicians practiced. Specific sampling points were determined by the



percentage of the population in each parish. The majority of the interviews, 64 percent, were completed in the parishes of Kingston and St. Andrew.

### 3.2.2 Fieldwork

Fieldwork was conducted by a locally based research institution, Market Research Services Limited (MRSL). The work commenced on July 17, 2006 and was completed on November 1, 2006. Whilst fieldwork went smoothly for the most part, a number of factors prevented the fieldwork team from completing the scheduled work in a timelier manner. It is useful to list just a few of the more glaring ones.

#### Limitations

This project commenced during the summer months and some physicians on the list appeared to have been on vacation, making them unavailable at the relevant time. This necessitated replacements from the original names selected.

A number of physicians who were contacted requested that the questionnaire be left for them to look over for completion. Although this was not the ideal situation, under duress of time, a decision was taken to use this approach in those situations where the physicians insisted on this and where it was felt this would be the only way to get the interviews done. Quite often, in those cases, several visits had to be made in an effort to have the questionnaire completed.

The questionnaire had a refusal clause attached to it; and several physicians, not being enthused to co-operate, sought to use this escape route. The survey process was further complicated by the fact that several physicians practice at a number of different offices and as such were often very difficult to locate.

In other instances, interviewers found it very difficult to make their way beyond seemingly over zealous and protective receptionists and were treated as if they were patients, i.e. they were asked to wait for long periods to see the physician. This resulted in

long completion times and very slow rates of completion. In the final analysis, the above hurdles served to impact negatively on the planned completion time.

On a more positive note, MRSL used its team of highly trained interviewers to carry out this fieldwork amongst this group of professionals. Specific training geared to equipping them to overcome reluctant respondents enhanced their ability to get the interviews done.

Physicians and other medical personnel who agreed to respond were eventually quite interested in the subject matter and seemed to find the survey itself important. For the majority of the interviews, the interaction between the physicians and the interviewers went smoothly and the interview, once underway proved to be a fairly easy undertaking.

Whilst interviewers worked independently, specially briefed supervisors aided them in setting up the interviews. Those supervisors were also their first port of call in case of difficulty with the interview.

#### Validation

An important element of the fieldwork process was the validation of the interviews. MRSL ensured that fieldwork was conducted in line with specifications by follow-up calls to a randomly selected number of physicians. The incidence of calls was lower than what would normally have been carried out because supervisors had actually assisted in setting the appointments.

#### 3.2.3 Precision of Parameter Estimates

The margin of error ( $e$ ) of the physician survey is imputed by the following formula:

$$e = z \sqrt{\frac{\hat{p}(1 - \hat{p})}{n}}$$

where,

$e$  is the margin of error given the sample size

$n$  is the sample size

$z$  is the z-value associated with the desired confidence level

$\hat{p}$  is the estimated sample proportion

Using a conservative estimate of the population parameter ( $\hat{p} = 0.50$ ), a sample size of 242 and the conventional 95 confidence level ( $z = 1.96$ ), the estimates from the physician survey has a  $\pm 6\%$  margin of error. That is, there is a 0.95 probability that the survey estimates will be within six percentage points of the true population parameters.<sup>11</sup>

### 3.2.4 The Instrument

The survey was conducted with the use of a structured questionnaire. The questionnaire was designed by the Technical Staff of the FTC and submitted to MRSL for administration. Affixed to each questionnaire was a request for participation and a confidentiality clause. A copy of the questionnaire is included as APPENDIX F.

### 3.2.5 Editing and Coding

#### Verification

Once the completed questionnaires were received in the office of MRSL, their team of editors scanned each one to ensure that fieldwork was completed as per specifications laid down and that as far as possible, the physicians answered the questions. Only after the questionnaires were passed as being complete were they submitted to the FTC.

#### Coding

Coding of the responses was carried out by the FTC. Each response (and non-response) was given a numerical value in order to simplify the process of data entry and analysis. All questionnaires were then inspected to ensure accurate collection of data, and minimise respondents' and interviewers' error.

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<sup>11</sup> Since the sample is 10% of the population the precision of the estimates should be adjusted using the FPC factor. The adjustment resulted in only a negligible change to the margin of error, however. See discussion on FPC in the consumer survey methodology in section 3.1.1 above.

### 3.2.6 Data Entry and Analysis

Data entry was completed by the FTC using Microsoft Excel.<sup>12</sup> A detailed examination of the data was carried out which included a manual comparison of the physical questionnaire against the data entered.

Data analysis was carried out by the FTC using Stata version 9.<sup>13</sup> The study allows for adequate segmentation of the market in terms of variables such as age, number of years the physician has been practicing, formulary restrictions, and business associations/affiliations. This report provides analyses, interpretations and recommendations based on information gathered from the Physicians Survey.

## 3.3 Distributor Survey

### 3.3.1 Sampling

This survey was designed to conduct a census of distributors. The population of interest is defined as “registered distributors of prescription medication in Jamaica.” We acquired the list of distributors registered by the Pharmacy Council of Jamaica (PCJ) as at 2005. The list contains the names and addresses of thirty enterprises which are authorised to distribute pharmaceutical products in Jamaica; eighteen of which distributed prescription medication. The data garnered reflect the responses of fourteen distributors however, because four distributors refused to participate in the study.

### 3.3.2 Fieldwork

The majority of distributors were located in the parishes of Kingston and St. Andrew area whilst others were spread sparingly across the remaining parishes. Appointments were made for interviews to be conducted either in person or via telephone calls. Where interviews were done by telephone, questionnaires were faxed or emailed to the respondents two hours before the scheduled time of the interview. Fieldwork was

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<sup>12</sup> Microsoft Excel is a registered product of the Microsoft Corporation.

<sup>13</sup> Stata is a registered product of the StataCorp LP.

conducted during the period June 19-30, 2006 by a member of the FTC Technical Staff and a specially recruited and trained interviewer.

### 3.3.3 The Instrument

The distributor survey was conducted with the use of a structured questionnaire. The questionnaire was designed and administered by members of the Technical Staff of the FTC. Affix to each questionnaire was a request for participation and a confidentiality clause. A copy of the questionnaire is included as APPENDIX H.

### 3.3.4 Editing and Coding

Coding of the responses was carried out by the FTC. Each response (and non-response) was given a numerical value in order to simplify the process of data entry and analysis. All questionnaires were then inspected to ensure accurate collection of data, and to minimise respondent and or interviewer errors.

### 3.3.5 Data Entry and Analysis

Data entry was completed by the FTC using Microsoft Excel.<sup>14</sup> A detailed examination of the data was carried out; this included a manual comparison of the physical questionnaire with the data entered.

Data analysis was carried out by the FTC using Stata version 9.<sup>15</sup> The study allows for adequate segmentation of the market in terms of variables such as number of years in the business, and business associations/affiliations, among others. The report provides analyses, interpretations and recommendations based on the information gathered from the Distributor Survey.

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<sup>14</sup> Microsoft Excel is a registered product of the Microsoft Corporation.

<sup>15</sup> Stata is a registered product of the StataCorp LP.

### 3.4 Retailer Survey

#### 3.4.1 Sampling

The survey used a *stratified random sampling* technique. The population of interest is defined as “pharmacists at pharmacies registered in Jamaica.” We acquired the list of pharmacies registered by the Pharmacy Council of Jamaica (PCJ) as at 2005. The registration of a pharmacy requires that a registered pharmacist be named. The list also contains the names and addresses of 353 enterprises authorised to retail pharmaceuticals in Jamaica as at 2005 and the pharmacist attached to the pharmacy at the date of registration. The population was stratified according to location (parish) of pharmacy. A sample of 36 respondents, which represented 10 percent of the population of pharmacies island-wide, was selected. Distribution of the sample across the various strata is presented in Table 3.3 below. A total of thirty six interviews were completed.

**Table 3.3 Number of Registered Pharmacies as at 2005**

<b>Parish</b>	<b>Population</b>	<b>Share of population (%)</b>	<b>Sample (<math>\approx 10\%</math>)</b>
Kingston & St. Andrew	119	33.7	10
St. Thomas	7	2.0	1
Portland	5	1.4	1
St. Mary	8	2.3	1
St. Ann	22	6.2	2
Trelawny	5	1.4	1
St. James	28	7.9	3
Hanover	4	1.1	1
Westmoreland	17	4.8	2
St. Elizabeth	20	5.7	2
Manchester	28	7.9	3
Clarendon	27	7.6	3
St. Catherine	63	17.8	6
<b>TOTAL</b>	<b>353</b>	<b>100.0</b>	<b>36</b>

Source: PCJ

Respondents were eliminated if they had not dispensed prescription drugs in the preceding three months.

### Strata

Pharmacies were selected from each parish across the island. It is important to note that the list from the PCJ identifies pharmacies which were registered at the material time and this is a separate listing from that of pharmacists who were registered. As a result the name of the pharmacist listed was not necessarily the one interviewed; further, a pharmacist may dispense from more than one pharmacy. Due diligence was taken not to interview any one pharmacist at multiple locations. Specific sampling points were determined by the percentage of the population held by each parish. It is to be noted that the questionnaire included questions which were directed at the owner of the pharmacy, who may or may not be the pharmacist who dispenses medication.

#### 3.4.2 Precision of Parameter Estimates

Using a conservative estimate of the population parameter ( $\hat{p} = 0.50$ ), a sample size of 36 and the conventional 95 confidence level ( $z = 1.96$ ), the estimates from the pharmacy survey has a  $\pm 16\%$  margin of error. That is, there is a 0.95 probability that the survey estimates will be within 16 percentage points of the true population parameters.<sup>16</sup>

#### 3.4.3 Fieldwork

Appointments were made for interviews to be conducted either in person or via telephone calls. Where an interview was administered via telephone, a questionnaire was faxed or emailed to the respondent two hours before the scheduled time of the interview. Fieldwork was conducted during the period June 24, 2006 to July 25, 2006 by members of the Technical Staff of the FTC.

#### 3.4.4 The Instrument

The survey was conducted with the use of a structured questionnaire which was designed and administered by the Technical Staff of the FTC. Affixed to each questionnaire was a

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<sup>16</sup> Since the sample is 10% of the population the precision of the estimates should be adjusted using the FPC factor. The adjustment resulted in only a negligible change to the margin of error, however. See discussion on FPC in the consumer survey methodology in section 3.1.1.

request for participation and a confidentiality clause. A copy of the Instrument is included as APPENDIX G.

#### 3.4.5 Editing and Coding

Coding of the responses was carried out by the FTC. Each response (and non-response) was given a numerical value in order to simplify the process of data entry and analysis. All questionnaires were then inspected to ensure accurate collection of data, and to minimise respondent and or interviewer error.

#### 3.4.6 Data Entry and Analysis

Data entry was completed by the FTC using Microsoft Excel.<sup>17</sup> A detailed examination of the data was carried out; this included a manual comparison of the physical questionnaire with the data entered.

Data analysis was carried out by the FTC using Stata version 9.<sup>18</sup> The study allows for adequate segmentation of the market in terms of variables such as number of years the pharmacy is in operation and pharmacy ownership. The report provides analyses, interpretations and recommendations based on the information gathered from the retailer Survey.

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<sup>17</sup> Microsoft Excel is a registered product of the Microsoft Corporation.

<sup>18</sup> Stata is a registered product of the StataCorp LP.



#### 4. COMPLAINTS IN THE HEALTH CARE INDUSTRY<sup>19</sup>

In this chapter, we summarise allegations of anticompetitive practices in the health care industry in Jamaica. To do this, we searched the records of the following organisations for complaints: the FTC, CAC, PCJ, Medical Association of Jamaica (MAJ) and national newspapers (*The Daily and Sunday Gleaner* and *The Daily and Sunday Observer*). We were informed by the MAJ that it does not maintain a record of complaints. We presented below summaries of the allegations of anticompetitive practices lodged at the FTC and the other named institutions.

##### 4.1 Complaints lodged at the FTC

Complaints lodged with the FTC are entered and stored in our electronic information system, Case Information Management System (CIMS). A query of this database revealed that since the FTC was established in 1993, it has received thirty six complaints regarding the health care industry.<sup>20</sup> Additionally, persons requested the opinion of the FCA on three occasions. The complaints and requests for opinion are summarised in Table 4.1 through Table 4.4 and are discussed below.<sup>21</sup>

##### 4.1.1 Who Complaints Are Made Against

Table 4.1 below shows that complaints have been made against the following entities: retailers; distributors; health insurers; physicians and other service providers; trade associations and regulatory agencies. Most of the complaints were made against private retailers of health care products and services.

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<sup>19</sup> This chapter replicates, in part, research carried out by Clarke, Evenett and Lucenti (2005) for Latin American and the Caribbean countries.

<sup>20</sup> Information on complaints concerning products identified in the categories labeled as “medical care and services”, “medical supplies and devices”, or “personal care”, were retrieved from CIMS. Additionally, complaints which had the term “pharmacy” were retrieved for analysis. The data analysis covers complaints entered into CIMS as at March 31, 2007.

<sup>21</sup> The tables show the number of issues which was complained about and not the number of complaints which were received. These numbers differ to the extent that one complaint could raise more than one issue for competition law enforcement.

**Table 4.1 Who complaints are made against**

Respondent	Breach Type								Total
	Consumer Redress			Competition Related Complaints					
	Excessive prices to final consumers <sup>a</sup>	Double-Ticketing	Other	Discrimination	Predatory Pricing	Misleading Representation	Tied-selling	Other	
Retailers (private)	3	1	8	-	-	9	-	-	21
Retailers (public)	-	-	1	-	1	1	-	-	3
Distributors (private)	-	-	-	1	-	-	-	1	2
Health Insurers	-	-	-	1	-	-	-	-	1
Physicians	-	-	-	-	-	-	1	-	1
Medical services providers (other than physician)	-	-	3	-	-	1	-	-	4
Trade Associations	-	-	-	1	-	-	-	-	1
Regulatory Agencies	-	-	-	2	-	-	-	1	3
TOTAL Complaints	3	1	12	5	1	11	1	2	36
Requests for Opinion									3

Source: FTC.

Notes:

a. Excessive pricing to final consumers, an example of exploitative conduct, is not proscribed under Jamaica's competition law. Data for this category are included in the table to facilitate comparisons across jurisdictions since the conduct breaches competition law in some jurisdictions.

The table shows that twenty four complaints against retailers were received; eleven complaints were in respect of allegations of anticompetitive conduct. Nine of the allegations of anticompetitive conduct were made against private retailers while the other two were made against publicly owned retailers. Although retailers are mainly accused of making misleading representations, they also have been accused of engaging in predatory pricing. In addition, there were thirteen complaints against retailers regarding matters for consumer redress, three of which deal with excessive prices to final consumers.

The FTC received three complaints against regulatory agencies; two of the complaints concern allegations of potentially anticompetitive discriminatory practices. Trade associations were also accused of discriminatory conduct.

There was only one complaint against physicians, whereby a physician was accused of tied-selling. Four complaints about providers of other medical services were received; three of which concern matters for consumer redress.

#### 4.1.2 Who Complains

Table 4.2 below shows that final consumers are more likely to lodge complaints at the FTC than other players in the pharmaceutical sector. The table shows that final consumers lodged twenty two of the thirty-six complaints received by the FTC. Retailers also contribute significantly to the database of complaints with seven of the total number received. The next most prolific complainants are regulatory agencies who lodged three of the complaints.

**Table 4.2 Who Complains**

Informant	Requests for Opinion	Breach Type								Total
		Consumer Redress			Competition Related Complaints					
		Excessive prices to final consumers <sup>a</sup>	Double-ticketing	Other	Tied-selling	Discrimination	Predatory Pricing	Misleading Representation	Other	
Final consumers	-	3	1	12	1	-	-	5	-	22
Health Insurers	1	-	-	-	-	-	-	-	-	1
Retailers (private)	-	-	-	-	-	5	-	1	1	7
Distributors (private)	1	-	-	-	-	-	-	-	-	1
Trade associations	-	-	-	-	-	-	1	1	-	2
Regulatory Agencies	1	-	-	-	-	-	-	2	1	4
FTC	-	-	-	-	-	-	-	2	-	2
TOTAL	3	3	1	12	1	5	1	11	2	39

Source: FTC.

Notes:

a. Excessive pricing to final consumers, an example of exploitative conduct, is not proscribed under Jamaica's competition law. Data for this category are included in the table to facilitate comparisons across jurisdictions since the conduct breaches competition law in some jurisdictions.

#### 4.1.3 A Summary of Products and Services Complained About

Table 4.3 below lists the types of products and services that were complained about. It shows that the FTC received twice as many complaints in respect of products, than those regarding services.

The table shows that twelve complaints were lodged against providers of health care services. Four of these complaints concern physician services; three concern customer service and certification issues each. Seven of these were competition related complaints.

A total of twenty four complaints were lodged against suppliers of health care products. The table shows that three complaints were made against suppliers of products used in the treatment of chronic ailments; two of which deal with allegations of predatory pricing and misleading representation. Products used to care for the skin and eyes account for seven complaints.

**Table 4.3 Which types of products/services are complained about?**

Services/Products	Requests for Opinion	Breach Type								Total
		Consumer Redress			Competition Related Complaint					
		Excessive prices to final consumers <sup>a</sup>	Double-Ticketing	Other	Tied-selling (tying product)	Discrimination	Predatory Pricing	Misleading Representation	Other	
Services										
Physician services	-	-	-	2	1	-	-	-	1	4
Medical services (excluding physician services)	-	-	-	1	-	-	-	1	-	2
Customer Service	-	-	-	2	-	-	-	1	-	3
Certification	-	-	-	-	-	3	-	-	-	3
Health Insurance	1	-	-	-	-	-	-	-	-	1
Other services	2	-	-	-	-	-	-	-	-	2
Products										
Skin care	-	-	1	2	-	-	-	1	-	4
Sanitary	-	1	-	-	-	-	-	-	1	2
Chronic Ailment Treatment	-	-	-	1	-	-	1	1	-	3
Cough syrup/ drops	-	-	-	1	-	1	-	-	-	2
Multiple medication	-	-	-	-	-	-	-	1	-	1
Anti-rejection medication	-	-	-	-	-	1	-	-	-	1
Eye care	-	-	-	2	-	-	-	1	-	3
Sleeping aids	-	-	-	1	-	-	-	-	-	1
Other products	-	2	-	-	-	-	-	5	-	7
TOTAL	3	3	1	12	1	5	1	11	2	39

Source: FTC.

Notes:

a. Excessive pricing to final consumers, an example of exploitative conduct, is not proscribed under Jamaica's competition law. Data for this category are included in the table to facilitate comparisons across jurisdictions since the conduct breaches competition law in some jurisdictions

#### 4.1.4 Number of Complaints and Requests for Opinion (1993-2007).

Table 4.4 below shows that the number of complaints submitted to the FTC in a given year peaked in 2004 when we received eight complaints concerning the conduct of enterprises in the health care industry. Since then, only five complaints about the health care industry have been submitted to the FTC.

**Table 4.4 Are More Complaints being lodged over time?**

<b>Year</b>	<b>Number of Complaints</b>	<b>Number of Requests for Opinion</b>
1993	-	-
1994	4	-
1995	3	2
1996	2	-
1997	3	-
1998	1	-
1999	1	-
2000	1	-
2001	3	-
2002	2	-
2003	3	-
2004	8	-
2005	2	1
2006	1	-
Jan-Mar 2007	2	-
<b>Total</b>	<b>36</b>	<b>3</b>

Source: FTC

## 4.2 Complaints lodged at the CAC

The CAC reports that, during the period April 2003 to March 2007, it received 103 complaints against participants in the health care industry. Table 4.5 sets out a breakdown of the complaints in terms of the type of entity complained against on a yearly basis over the four year period.

**Table 4.5 Breakdown of complaints received by CAC, April 2003 - March 2007**

Type of entity complained against	Year				TOTAL
	April 2003 – March 2004	April 2004 – March 2005	April 2005 – March 2006	April 2006 – March 2007	
Optician / Ophthalmologist	9	14	8	19	<b>50</b>
Pharmacy / distributor	3	7	6	5	<b>21</b>
Health insurance company	2	4	2	1	<b>9</b>
Dentistry	2	5	0	1	<b>8</b>
Hearing aid suppliers	1	2	1	0	<b>4</b>
Hospital / Therapeutic practitioner / Laboratory	1	8	2	0	<b>11</b>
<b>TOTAL</b>	<b>18</b>	<b>40</b>	<b>19</b>	<b>26</b>	<b>103</b>

Source: CAC

Optician/ophthalmologist service is the most complained about. The complaints relate to the poor quality of lens and frames; poor customer service; refusal of practitioners to provide consumers with prescription or the charging for prescription; and overcharging for prescription eyeglasses.

Complaints relating to pharmacies are more varied than complaints against the other types of entities. The following are some the issues consumers complained about:

- Customer was given branded drug instead of generic as prescribed by the doctor;
- Pharmacy required prescription for non-prescription drug;
- Pharmacy dispensed generic without informing customer;
- The unavailability of branded drug for a particular ailment;
- Pharmacy dispensed incorrect drug; and
- Pharmacy sold expired drug.



Complaints made against health insurance companies relate to the companies' refusal to honour claims; increased premium; and the lengthy processing of claims.

With respect to dentistry, consumers complained about ill fitted dentures and poor quality service. One complainant claims that he was asked to pay a penalty fee for missing a dental appointment.

Of the four complaints relating to hearing aid suppliers, three relate to the quality of hearing aid sold and one relates to the incorrect product being sold.

The complaints regarding hospitals speak to quality of medical service, administrative services and facilities.

### **4.3 Complaints lodged at the PCJ**

The PCJ maintains a register of complaints received about pharmacies. We sought and received permission to review the complaints in order to determine whether any of them contain any allegation of anticompetitive practices by pharmacies, or whether they contain information which would raise concerns about potential anticompetitive practices. In January 2006, two members of the research team visited the offices of the PCJ to review the complaints. There were forty six complaints logged in their registry, covering the period January 2001 through May 2005.

The following complaints raised concerns of possible anticompetitive practices and consumer welfare issues. In 2001, a consumer alleged that a pharmacy refused to sell him antihypertensive medication. The complaint did not indicate the reason. In 2003 a consumer alleged that his physician instructed him to fill his prescription at a specific pharmacy. There were five allegations that entities were dispensing medication without the proper licences. This is a concern for both the safety of consumer and the viability of competition in the industry since unlicensed entities might not be following accepted

safety standards for dispensing medication. Presumably, all other things being constant, operating an unlicensed entity is cheaper than operating a licensed one.

There were four allegations that licensed pharmacies were dispensing controlled medication without a prescription. Again, this raises concerns for both the safety of consumers and the viability of competition in the industry. The register contained five allegations that pharmacists dispensed either incorrect medication or incorrect dosage of medication.

The other complaints concerned allegations of poor customer service at pharmacies and that “sample drugs” are being sold.

#### **4.4 Complaints Published at National Newspapers**

*The Daily Gleaner* and *The Daily Observer* newspapers were established in Jamaica in 1834 and 1993 respectively.<sup>22</sup> We visited their offices during August 2006 in order to identify articles published in the respective newspapers during the period January 1990 (1993 for the Jamaica Observer) through July 2006 that raise concerns for potential anticompetitive practices in the pharmaceutical industry. In our search, we used various combinations of the following keywords: “ailment,” “chronic,” “physician” “drugs,” “medicine,” “pharmacist,” “pharmacy,” “pharmaceutical” and “physician.” The 157 articles identified were reviewed.

None of the articles identified by our search procedure raised any concern with respect to anticompetitive practices. Most of the articles contained information for consumers on how to maintain healthy lifestyles, information on various medical conditions or bemoaned the high costs of medication in Jamaica.

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<sup>22</sup> The Gleaner’s website is <http://www.go-jamaica.com/> and the Jamaica Observer’s website is <http://www.jamaicaobserver.com/>.

#### **4.5 Summary**

This chapter summarises documented complaints about the health care industry from a variety of sources. It shows that complaints are mainly reported to the CAC and FTC; are mainly made by final consumers; and are predominantly made against private retailers of health care products. Most of the complaints concern matters for individual consumer redress. Of the few complaints which raise competition concerns, misleading representations and discriminatory practices are the primary behaviour reported.

## 5. PERCEPTIONS OF SUBSTITUTABILITY

In this chapter, we examine the extent to which there are differences in the *perceived* therapeutic effects of branded and generic medication among consumers, physicians and pharmacists. We also report on a scientific testing of the pharmacological properties of antihypertensive that was conducted by the UTECH. In examining the perceptions of stakeholders, we draw on responses from the surveys of consumers, physicians and pharmacists. The results of the consumer, physician and pharmacist surveys are presented in APPENDIX A, APPENDIX B, and APPENDIX C respectively. It is well established that perception has real effects on market outcomes. Unless these three groups accept generics as alternatives for innovator drugs in providing therapeutic relief, it is unlikely that the proliferation of generics on the market can lead to greater competition in the pharmaceutical sector.

### 5.1 Consumer Perceptions

The consumers' preference for prescription medication ( $\mathbf{R}$ ) is influenced by a variety of factors, including the price of generic medication, the price of branded medication, the degree of perceived substitutability between generic and branded medication, and ability to pay for prescription medication. In this section, we attempt to distil the consumers' expressed preference for prescription medication in order to isolate the degree of perceived substitutability between generic and branded prescription medication from other factors which influence consumer preference. Question q5a directly inquires about the consumers' preference for both types of prescription medication. The distribution of responses to this question is presented below in Table 5.1.

**Table 5.1 Consumers' Relative Preference for Generic and Branded Rx**

<b>Relative preference for generic and branded</b>	<b>% of respondents</b>
I would choose a generic medication once it is available	30.7
I would choose a branded medication, even if a generic medication is available	21.1
The type of medication I choose will depend on various factors.	32.1
I do not have a preference	16.2
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>
Number of respondents = 365	
Number of non-responses = 6	

To control for the effects that factors other than substitutability, may have on consumer preferences, we cross-reference the responses to question q5a with responses to other questions in the consumer survey.

#### 5.1.1 Reputation effect

In this section, we control for the potential effects of “reputation” on consumer preference for branded and generic medication. By reputation effect, we refer to differences in consumer preference between consumers who are informed about the suitability of the products (i.e., the relative effectiveness of both types of medication) and those consumers who are not informed of the same. In most industries, consumption of the product would normally be sufficient to inform consumers about the product, given that products in most industries have either *search* or *experience* characteristics.<sup>23</sup> This is not the case, however, in pharmaceutical market where prescription medication is considered to have *credence* characteristics.<sup>24</sup> The following methodology is used to distinguish between informed and informed consumers. For purposes of estimating reputation effects, informed consumers are defined as those who are exposed mainly to independent sources for information, or who deems independent sources of information to be most credible. The main channels through which consumers are exposed to information are revealed in responses to question q4 in the consumer survey (*see* Table

<sup>23</sup> A *search* good is such that consumers may determine how suited the good is to his tastes by inspecting the goods whilst an *experience* good is one in which the consumer has to consume (sample) the good in order to determine how suited the good is to his tastes.

<sup>24</sup> A *credence* good is one in which the consumer is uncertain as to how well suited the good is to his tastes even after consuming the good.

A-10 through Table A-12) whilst consumers most credible sources of information are revealed in responses to question q3a in the consumer survey. Informed consumers are defined as those who list medical ‘brochures/flyers/magazines’ in their top two sources regarding exposure to information (*see* Table A-11) and consumers who lists the Internet in their top two sources of credible information (*see* Table A-6).<sup>25</sup> The responses to question q5a are disaggregated and presented below in Table 5.2 to highlight the impact of reputation on consumer preference.

**Table 5.2 Effect of Reputation on Consumer Preference**

	% of respondents	
	“Uninformed” consumers	“Informed” consumers
Prefer generic medication	31.4	25.0
Prefer branded medication	15.7	31.3
Preference depends on various factors	28.4	30.2
Indifferent	24.5	13.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	102	96
Number of Non-responses	1	1
Chi-Square (3 degrees of freedom) =9.0197; p-value=0.029.		

Reputation of the drugs appears to be an important factor for some consumers. The table above shows that there is a statistically significant difference between the preferences of informed consumers and uninformed consumers. The proportion of informed consumers who prefer generic medication is 6.4 percentage points less than the proportion of uninformed consumers who with similar preference. Further, the proportion of informed consumers who prefer branded medication is 15.6 percentage points greater than the proportion if uninformed consumers who prefer branded medication.

A closer examination of the statistical results indicates that the statistical difference observed is due to differences in the preference for branded medication and not for differences in the preference for generic medication. That is, informed consumers do not prefer generic medication any less than uninformed consumers; rather, informed consumers prefer branded medication more than uninformed consumers.

<sup>25</sup> Admittedly, this is only a proxy for “informed” consumers.

### 5.1.2 Price effect

In this section, we control for the potential effects of relative prices of generics on consumer preference. We conjecture that relative prices would have a sizeable impact on consumer preference as the responses to question q6 in the consumer survey reveal that 44.2 percent of consumers thought that generics were ‘a lot less expensive’ than branded medication.<sup>26</sup> Question q5b asks respondents to state their preference for medication under the hypothetical situation of price equality of the branded and generic drugs. It is known that responses to questions involving hypothetical scenarios (stated preferences) are not as reliable as responses to questions about actual experiences (revealed preferences).<sup>27</sup> In order to assess the degree of consistency of the response to the hypothetical situation, we cross-reference the responses of question q5a (actual price difference) and question q5b (hypothetical equal prices). The results are presented in Table 5.3 below. If responses to the hypothetical situation are consistent with the responses to the question in the actual situation, the following results are expected: (i) each consumer who indicates a preference for branded medication in the actual situation should state a preference for branded medication in the hypothetical situation; and (ii) each consumer who does not indicate a preference for generic medication in the actual situation should not state a preference for generic medication in the hypothetical situation.

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<sup>26</sup> From henceforth, the term “medication” refers to prescription medication.

<sup>27</sup> See RAND Europe (2005) for a recent study conducted for the UK Department for Transportation involving stated preference (SP) data sets.

**Table 5.3 The Effect of Prices on Consumer Preference for Rx**

	Preference Indicated under <b>actual</b> differences in price (q5a)			
Preference Stated under <b>hypothetical</b> equal prices (q5b)	Generic	Branded	Indifferent	“It Depends”
Generic	35.7	0.0	1.7	12.0
Branded	36.6	97.4	44.1	70.1
Indifferent	25.0	1.3	30.5	12.0
I do not know	2.7	1.3	23.7	6.0
Total	100.0	100.0	100.0	100.1
Number of respondents	112	76	117	59
Number of non-responses				

Notes:

1. Shaded cells represent consumers whose responses to questions q5a and q5b are clearly inconsistent with each other.

Table 5.3 above indicates that in the actual situation, 2.6 percent of respondents indicated a preference for branded medication, 1.7 percent indicated that they are “indifferent” and 12.0 percent of those who indicated that “it depends”, stated inconsistent preferences in the hypothetical situation of equal prices. In all, only 16 of the 364 respondents (4.4 percent) were inconsistent in their stated preferences for prescription medication. These responses were then excluded from further analysis of the effects of relative prices on consumer preference. In order to measure the size of the “price” effect, we constructed a contingency table by cross-referencing the responses to question q5a and q5b, excluding those respondents with inconsistent responses. The results are presented in Table 5.4 below.



**Table 5.4 The Effect of Prices on Consumer Preference for R**

	<b>For difference in relative price (question q5a) (%)</b>	<b>For no difference in the relative price of generic (question q5b) (%)</b>
Prefer generic medication	32.2	11.5
Prefer branded medication	21.6	64.1
Preference depends on various factors	29.6	6.9
Indifferent	16.7	17.5
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>	<b>100.1</b>
Number of respondents	348	348
Number of non-responses	17	17
Chi-Square (3 degrees of freedom) =156.826; p-value=0.000.		

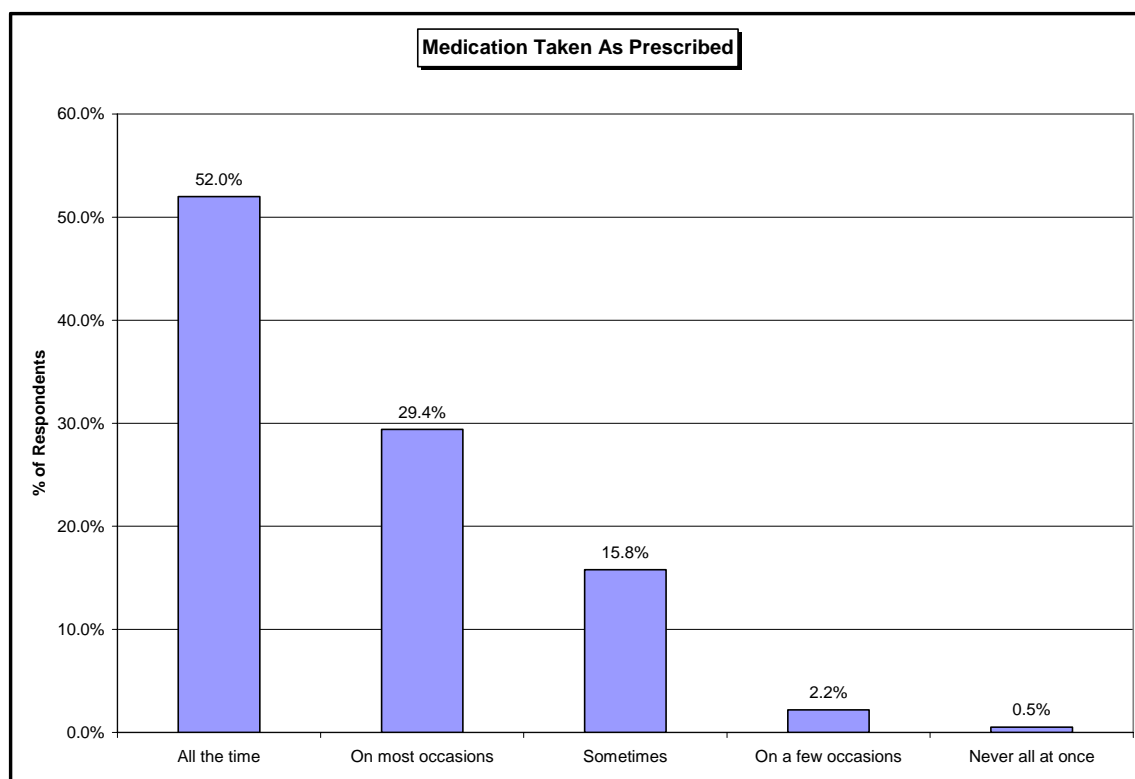
The results confirm that the relative price of the generic medication has a huge impact on the consumers who indicated a preference for generic medication in response to question q5a. The table shows that after controlling for prices, the proportion of consumers who strictly prefer generic medication decreased by 20.7 percentage points from 32.2 percent to 11.5 percent. The proportion of respondents who strictly prefer branded medication increased by 42.5 percentage points from 21.6 percent to 64.1 percent. Further the chi-square test statistic shows that the differences are statistically significant at the 5 percent level of significance.

### 5.1.3 “Take as directed” effect

In this section, we control for the effects that the consumer’s failure to follow his physician’s direction may have on his preference. Consumer preference for generic drugs also should be informed by the relative therapeutic success rates of generic and branded medication.

One important factor of therapeutic success is the extent to which the consumer follows his physician’s instructions for taking the medication. This information is summarised from responses to question q9b and depicted in Figure 5.1 below.

**Figure 5.1 Most Consumers do not Take Medication as Prescribed**



The table shows that only 52.0 percent of consumers follow instructions for taking medication ‘all the time’ and 29.4 percent follow instructions ‘on most occasions.’

In assessing the perceived substitutability of generics, therefore, we should control for eth preferences of consumers who do not follow instructions. To isolate the effects of “take as directed” influence on consumers’ preferences, we cross-reference responses to question q5a with responses to question q9b. The results are presented in Table 5.5 below.

**Table 5.5 The Effect of “take as directed” on Consumer Preference for Rx**

	% of respondents		
	Consumers who do not take as prescribed	Consumers who take as prescribed	All
I would choose a generic medication once it is available	27.0	33.7	30.5
I would choose a branded medication even if a generic is available	19.5	22.8	21.2
The type of medication I choose will depend on various factors	33.9	30.6	32.1
I do not have a preference	19.5	13.0	16.2
<b>Total ≠ 100% due to error in rounding</b>	<b>99.9</b>	<b>100.1</b>	<b>100.0</b>
Number of respondents	174	190	364
Number of non-responses	2	1	3
Chi-Square (3 degrees of freedom) = 4.3421; p-value = 0.227			

The table shows that the proportion of consumers who prefer generic medication increased by 6.7 percentage points from 27.0 percent to 33.7 percent- after controlling for the effects that the consumer’s failure to follow instructions may have on consumer preferences. It is observed also that the preference for branded medication increased by 3.3 percent from 19.5 percent to 22.8 percent. The chi-square test of independence suggests however, that the difference is not statistically significant at the 5 percent level. There is therefore insufficient evidence to suggest that the degree to which the consumer follows medication instructions is related to consumer preference for branded and generic medication.

#### 5.1.4 Budget effect

In this section, we examine the extent to which budgetary constraints may be influencing consumer preferences. We used two measures of budgetary constraints, household income (question d7) and health insurance coverage (questions q10 and q11b). The results are presented in Table 5.6 and Table 5.7 below.

**Table 5.6 The Effect of Income Constraints on Consumer Preference for Rx**

	% of Respondents		
	Constrained by income <sup>1</sup>	Not constrained by income	All
I would choose a generic medication once it is available	36.4	24.7	28.3
I would choose a branded medication even if a generic is available	22.1	22.9	22.7
The type of medication I choose will depend on various factors	27.3	34.1	32.0
I do not have a preference	14.3	18.2	17.0
<b>Total ≠ 100% due to error in rounding</b>	<b>100.1</b>	<b>99.9</b>	<b>100.0</b>
Number of respondents	77	170	247
Number of Non-responses	0	4	4
Chi-Square (3 degrees of freedom) = 3.8213; p-value = 0.281.			

Notes:

1. The threshold income reported in this analysis is JMD 20,000. That is, respondents who reported a household income below JMD 20,000 per month were classified as being “income constrained” and those reporting a monthly household income above JMD 100,000 were classified as being “income unconstrained.” The results reported, however, are not sensitive to this threshold level as the findings are robust for threshold amounts for constrained individuals of JMD 10,000, JMD 30,000, JMD 40,000, JMD 50,000, JMD 60,000, JMD 70,000, JMD 80,000, JMD 90,000 and JMD 100,000.

Table 5.6 above shows that although the proportion of consumers who prefers decreased from 36.4 percent to 24.7 after controlling for household income constraints, the difference is not statistically significant at the 5 percent level. These results imply that household budget constraints do not impact the preference for prescription medication.

**Table 5.7 The Effect of Insurance Constraints on Consumer Preference for  $R^{28}$** 

	% of respondents		
	No health insurance coverage	Covered with health insurance	All
I would choose a generic medication once it is available	28.7	32.8	30.6
I would choose a branded medication even if a generic is available	16.2	26.9	21.4
The type of medication I choose will depend on various factors	35.9	28.1	32.0
I do not have a preference	19.3	12.3	16.00
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>	<b>100.1</b>	<b>100.0</b>
Number of non-responses	192	171	369
Number of non-responses	2	1	3
Chi-Square (3 degrees of freedom) = 9.9325; p-value = 0.019.			

Table 5.7 above shows that there is a statistically significant association between consumers' preference for prescription medication and their level of insurance coverage. The analysis shows that the primary reason for this is the significant differences between the proportions of consumers who prefer branded medication in each group. The proportion of consumers who prefer branded medication is 10.7 percentage points greater for insured consumers than for uninsured consumers. Although the proportion of consumers who prefer generics is 4.1 percentage points greater for insured consumers, the difference is not statistically significant.

Although the proportion of consumers who prefer generics is not statistically different from the proportion of uninsured consumers with similar preference, the proportion of insured consumers who prefer branded medication is significantly greater than the proportion of uninsured consumers who prefer branded medication.

<sup>28</sup> We are aware from the responses to question q11b (see Table A-24) that 86.8 percent of persons with insurance had capped benefits; that is, their insurers reimburse expenditures up to a maximum level per annum. We wanted to undertake a sensitivity analysis to determine the extent to which defining the unconstrained group as insured respondents as opposed to respondents with uncapped benefits. We were unable to implement the analysis as there are only 23 persons with uncapped insurance in the sample; this sub-sample would be too small to make reliable inferences from the chi-square statistic.

### 5.1.5 Utilisation effect

In this section, we explore the extent to which consumer preference differs by the frequency with which consumers take prescription medication. To examine this issue, we used the frequency with which consumers purchase prescription medication (question q15). The assumption is that consumers who purchase medication more often also use medication more often. The results are presented in Table 5.8 below.

**Table 5.8 The Effect of “Purchase Frequency” on Consumer Preference for  $\mathcal{R}$**

	% of respondents		
	Consumers who purchase drugs less frequently than once per month.	Consumers who purchase drugs at least once per month.	All
I would choose a generic medication once it is available	27.6	39.8	30.5
I would choose a branded medication even if a generic is available	21.5	21.7	21.7
The type of medication I choose will depend on various factors	32.0	30.1	31.3
I do not have a preference	18.9	8.4	16.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	275	83	358
Number of non-responses	3	1	4
Non-response			
Chi-Square (3 degrees of freedom) = 7.3955; p-value = 0.060.			

The results from this measure of the intensity of drug utilisation indicate that there is marginally insignificant relationship at the 5 percent level, between the intensity of drug utilisation and consumer preference for generic and branded medication.

### 5.1.6 Perceived Substitutability of Generic and Branded Medication Effect

In the previous sections, there is evidence that consumers are impacted only by “reputation”, “price” and “budget” effects. After controlling for these three factors, we

should be able to get a more accurate indication of their perception of the substitutability of generic and branded medication.

To control for reputation, price and budget effects, we present the responses to question q5b (which controls for price effects) from individuals with health insurance (which controls for the “budget” effects) who are informed (which controls for the “reputation” effects). The preference distribution of the remaining individuals is assumed to reflect consumers’ preference based on perceived substitutability of generic medication. The result is presented below in Table 5.9.

**Table 5.9 The Effect of “substitutability” on Consumer Preference for Rx**

	% of respondents		
	Result of perceived substitutability, price, and reputation and budget effects.	Result of perceived substitutability effect only	Net result of price, reputation and budget effects
generic medication	32.4	8.2	+24.2
Indifferent	16.8	10.2	+6.6
branded medication	18.1	77.6	-59.5
do not know/ depends	32.7	4.1	+28.6
<b>Total</b>	<b>100.0</b>	<b>100.1</b>	
Number of respondents	315	49	

The table above shows consumers’ preferences for branded and generic medication after controlling for (i) reputation, (ii) prices and (iii) budget effects. It shows that after controlling for these factors, 8.2 percent of consumers strictly prefer generic medication, 77.6 percent strictly prefer branded medication and 10.2 percent are indifferent between the two. The fact that only 4.1 percent were unable to express a preference suggests that the filtration exercise accounted for most of the factors that influence the consumers’ preference for branded and generic medication.

## 5.2 Physicians' Perceptions

In this section, we report on the physicians' perceptions of the substitutability of generic and innovator medication. Analysis of responses to questions q2a and q17c in the physician survey provides us with this information. By law, generic drugs are designed to be chemically equivalent (bioequivalent) to their innovator counterparts. Bioequivalence requires generics to contain the identical amounts of the main active ingredients which are present in innovator drugs but permits differences in the excipients (inactive ingredients) used in the manufacturing process. The concept of therapeutic equivalence speaks to the therapeutic relief provided by the generic drugs. Therapeutic equivalence is therefore a more useful gauge of substitutability than bio-equivalence.

Question q17c asked the physicians to provide an opinion on a statement about the therapeutic equivalence of bio-equivalent generic drugs.

“We are interested in learning about your evaluation of the use of generic prescription products. Please select the option that BEST represents your position on ... the statement...I am about to read to you.” The statement is:

Statement c: “All generics that are rated as bioequivalent can be considered therapeutically equivalent with the innovator products”

**Table 5.10 Physician Opinion on Bioequivalence v. Therapeutic Equivalence**

	<b>% of Respondents</b>
Strongly agree	8.2
Agree	38.6
Neutral	23.6
Disagree	23.6
Strongly disagree	6.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 233	
Number of non-responses= 9	

There is no consensus among physicians as to whether bioequivalence is tantamount to therapeutic equivalence. Table 5.10 above shows that 29.6 percent of the physicians disagree with the statement while 46.8 percent agree with it. The remaining 23.6 percent hold a neutral position.



In question q2a, we ask a more direct question about the therapeutic equivalence of generic and innovator products. The question posed was: “Considering everything, would you say generic drugs are therapeutically equivalent to innovator drugs?” The responses are summarised in the physician survey report in Table B-13 in APPENDIX B and reproduced below for convenience.

**Table 5.11 Physician Perception of the Therapeutic Equivalence of Generics**

<b>Are generics therapeutically equivalent?</b>	<b>% of respondents</b>
Yes	45.0
No	25.2
Depends	29.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 238	
Number of non-responses = 4	

There is no consensus among physicians as to whether generic drugs are therapeutically equivalent to their respective innovators. The results in Table 5.11 are consistent with the responses to question q17c in Table 5.10. Table 5.11 shows that 45.0 percent of the physicians believe that generic drugs are therapeutically equivalent to innovator drugs, 25.2 percent believe that they are not equivalent and 29.8 percent did not provide a definitive response but indicated, instead, that the therapeutic equivalence is dependent on various factors. The nature of these factors was explored in question q2b. The responses to this question are summarised in Table B-14 in APPENDIX B. It shows that 79.1 percent of consumers believe that therapeutic equivalence would depend on the expedients used in the manufacturing process (19.4 percent) ; the reputation of the manufacturer (33.9 percent) and the quality of the generic drugs (25.8 percent).

### **5.3 Pharmacists' Perceptions**

In this section, we report on the pharmacists' perception of the substitutability of generic and innovator medications. Their perception was revealed in responses to question q33b of the retailer's questionnaire. The question requires the pharmacists to indicate the extent to which they agree or disagree with the following statement:

“All generics that are rated as bioequivalent can be considered therapeutically equivalent to the innovator products.”

The responses are summarised in Table 5.12 below.

**Table 5.12 Pharmacist Perception of the Therapeutic Equivalence of Generics**

	<b>% of respondents</b>
Strongly agree	25.0
Agree	36.1
Neutral	5.6
Disagree	30.6
Strongly disagree	2.8
<b>Total</b>	<b>100.1</b>
Number of respondents = 36	
Number of non-responses = 0	

Table 5.12 above shows that 61.1 percent of pharmacists agree with the statement while 33.4 percent disagree with it.

An examination into the source of the perceived differences in the therapeutic abilities of generic and innovators is needed as these perceptions affect consumer demand and could potentially frustrate legitimate competition in the market. If the perceptions of these groups are based on factors which can be substantiated (say, the illegal distribution of fake and or inferior generic medication in Jamaica), then steps must be taken to identify and eliminate them as far it is efficient to do so. Similarly, if the perceptions are based on factors that can not be proven to be false, then the information structure of the industry must be rehabilitated and exploited to facilitate a greater flow of accurate information between policy makers and stakeholders.

#### **5.4 Therapeutic equivalence of generic antihypertensive medication**

This section reports on research into the biopharmaceutical properties of antihypertensive drugs marketed in Jamaica. The results of the research are included in a supplementary volume to this study [UTECH (2007)]. The study assessed the properties of antihypertensive drugs in four pharmacological classes: (i) Beta Blockers (Atenolol), (ii)

Angiotensine Converting Enzyme (ACE) Inhibitors, (iii) Diuretics and (iv) Central Alpha Blockers (Methyldopa).

Products were tested for uniformity of weight, content of active ingredients (assay) and *in vitro* dissolution rates, following the British Pharmacopoeia (BP)/ United States Pharmacopoeia (USP) procedures.

### Methodology

The study utilised *in vitro* dissolution testing which provides a useful index of bioavailability and bioequivalence. Following oral administration, drug absorption from a solid dosage form depends on the release of drug substance from the product, the dissolution or solubilization of the drug under physiologic conditions and the permeability of the therapeutic agent across the biomembrane of the gastrointestinal tract.<sup>29</sup> Because of the critical nature of drug dissolution from dosage form and solubility in physiologic fluids, *in vitro* dissolution may serve a useful guide in the prediction of *in vivo* performance.<sup>30</sup>

The knowledge of solubility, permeability, dissolution and pharmacokinetics of drug products are considered in defining dissolution test specifications for drug approval processes and for ensuring product's sameness under scale-up and post approval changes.

The *in vitro* dissolution specifications for generic drug products are established based on a dissolution profile in relation to previously documented acceptable clinical, bioavailability and/or bioequivalence studies. Thus, the dissolution specifications for batch-to-batch quality assurance published by in the USP as compendia standard is the official specification for all subsequent immediate release (IR) products with the same active ingredients and, hence could serve as a primary standard for product comparisons and selection.

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<sup>29</sup> See UTECH (2007) endnote 7.

<sup>30</sup> *In vitro* testing involves comparison of drug properties outside of a human body (in say, test tubes) while *in vivo* testing involves a comparison using human subjects.

### Findings

It was observed that the drugs contained the required level of active ingredients. The study found no evidence to refute the claim that generics in the classes of ACE Inhibitors and Diuretics could be used interchangeably with their innovator counterparts. The study finds, however, evidence that some innovators in the Beta Blocker and Central Alpha Blocker classes make the active ingredients available for absorption faster and to a greater extent than some of their generic counterparts.

We interpret these differences to represent quality disparities between the some innovator and generic medication in the Beta Blockers and Central Alpha Blocker classes. The study conducted by UTECH therefore validates the strict preference of some consumers, physicians and pharmacists for innovator medication distributed in Jamaica.

### **5.5 Summary**

In this chapter, we capture the attitudes and opinions of major stakeholders about the substitutability of prescription medication. We uncover evidence to suggest that consumer preference for branded and generic prescription medication is related to relative prices, reputation and budget constraints. After controlling for these factors, it is shown that over 77.6 percent of consumers have a strict preference for branded medication. For two reasons, however, one must be cautious in using this result to make inferences about the substitutability between innovator and generic medication. Firstly, some branded drugs are also generic medication; secondly, the consumer's perception of the substitutability of branded and generic medication might be highly subjective since therapeutic relief may not be easily discernible to the final consumer due to characteristics of medicinal products.

Notwithstanding the above, the chapter highlights mixed support from physicians and pharmacist for innovator medication; some 29.6 percent of physicians and 33.4 percent of pharmacists do not hold the opinion that generics are therapeutically equivalent to innovator medication.

The most objective assessment of the therapeutic equivalence of innovator and generic medication is the scientific testing of drugs in four pharmacological classes of antihypertensive distributed in Jamaica. The test finds evidence of differences in the therapeutic effects of innovator and some generic drugs in two of these classes. Despite the fact that these results can not be generalised to make inferences about the therapeutic equivalence of drugs used to treat other ailments in Jamaica, they, along with the opinion of physicians and pharmacists, serve to refute claims that the strong consumer preference for branded drugs (in Table 5.9) can be explained entirely by irrational consumer perceptions of prescription medication.

The results of the testing, however, clue us into the possible nature of information asymmetry in Jamaica. They demonstrate that while all generic antihypertensive drugs tested offered the relief they were designed to produce and so would pass the screening of the MoH, some generic drugs in two of the four classes of drugs tested did not provide relief as quickly as the innovator counterpart did, and so might be shun by final consumers, physicians or pharmacists. There is no inherent problem with having a market with products of varying qualities as consumers would base their product selection pattern on their marginal willingness and abilities to pay for higher quality products.<sup>31</sup>

A problem may occur, however, whenever consumers find it difficult to evaluate the qualities of the products, as is the case in the pharmaceutical sector. The problem is that the information asymmetries may prevent effective generics from competing with innovator products. In the pharmaceutical sector, it is known that the innovator drug is the standard of quality; the issue is not whether the innovator is effective, the issue is whether the generic is as effective as the innovator. There is a real danger, therefore, that consumers/ physicians who find it difficult/ costly to evaluate the qualities of generics might develop a strong preference for innovator medication, especially for the consumer who has had a bad experience with one generic medication in the past and decided to shun all generic medication.

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<sup>31</sup> The automobile industry is a classic example of a market with products of varying qualities.

The surveys reveal that consumers primarily receive information from physicians; further physicians and pharmacists receive information mainly from drug manufacturers or their representatives (see Table B-12 and Table B-19 for physicians' sources of information and Table C-29 through Table C-31 for pharmacists' sources of information). It is therefore relatively cheaper for physicians and pharmacists to evaluate the properties of drugs which are heavily marketed by their manufacturers compared to drugs which are not. The current information structure biases demand toward the manufacturers of innovator drugs as they tend to host seminars and market their products through sales (drug) representatives. In order to promote greater competition, a system must be devised which would make it relatively cheap for consumers, physicians and pharmacists to evaluate drugs which do not have the benefit of a large sales (marketing) force.

## 6. THE INFORMATION STRUCTURE OF THE SECTOR

The benefits of organizing the production and distribution of any product through competitive markets will ultimately flow to the final consumers of the product. Consumers of pharmaceutical products benefit from “therapeutic treatments” which provide relief from the discomfort associated with many ailments. Establishing and protecting the competitive process in markets is therefore tantamount to protecting the welfare of consumers. Economic theory is clear about the indispensable, active role of consumers in generating the competitive outcome. In most markets consumers independently determine which product to purchase. Further, most goods have either *search* or *experience* characteristics whereby consumers are able to assess their suitability by inspecting it prior to consumption (search goods) or at consumption (experience goods). Through their consumption patterns, consumers identify and reward firms which sell the better-suited products at the most reasonable prices. The completeness or accuracy of the information available to consumers is therefore a critical feature of competitive markets.

Consequently, we analyse the information structure of the pharmaceutical sector. Specifically we explore the sector’s mechanisms for disseminating information to, and acquiring information from consumers. Without access to the relevant information, the consumers’ role as an effective check against inefficiency and anticompetitive activity is diminished. To fulfil the role of “competition allies”, consumers must know, among other things, how to recognize suspicious behaviour and where to report it. To perform their role of “quality checkers”, consumers must be able to identify and select the “better” firms, i.e., firms with lowest price, best quality, etc.

There is more than one feature of the pharmaceutical sector that we suspect would limit the extent to which consumers could perform this role. Firstly, in the pharmaceutical sector, drug (product) selection is jointly determined by physicians, pharmacists and consumers. Secondly, pharmaceutical products have *credence* characteristics, which mean that consumers are not able to definitively evaluate these goods even after consumption. The uncertainty among consumers in assessing the therapeutic effect of

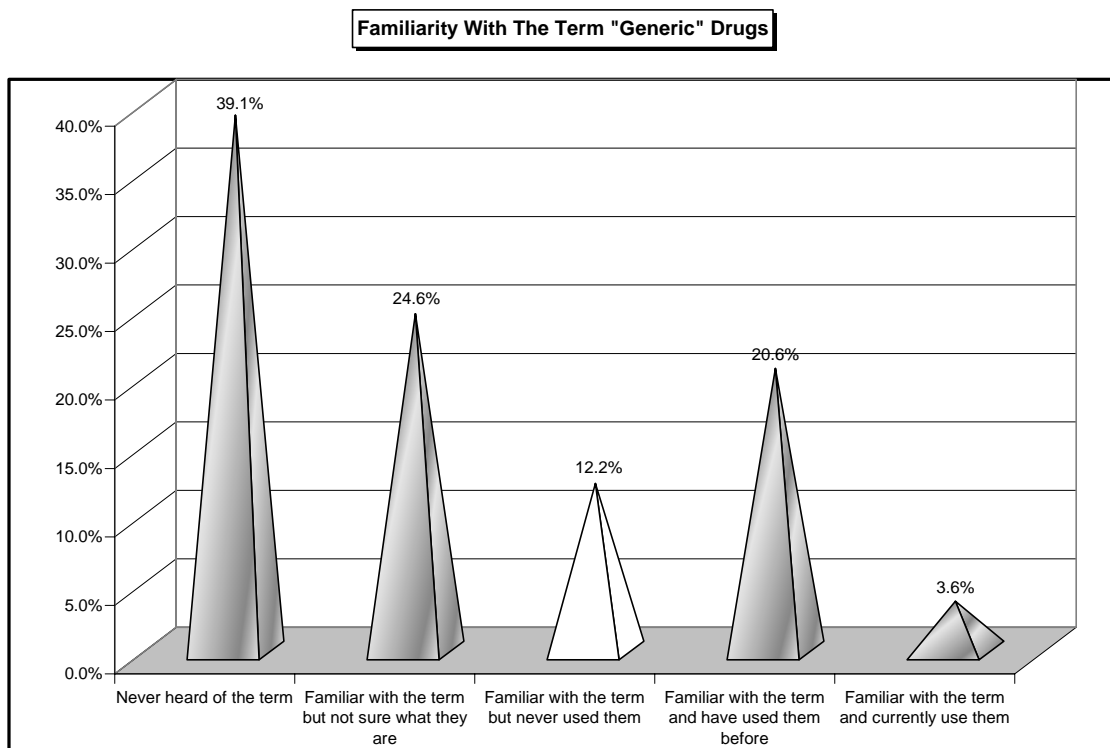
pharmaceuticals, and the important roles played by physicians and pharmacists in the drug selection process, mean that consumers in the pharmaceutical sector will find it more difficult than consumers in other sectors, to identify and reward the suppliers of better products.

The results from the surveys of consumers, physicians and retailers (pharmacists) are used to analyse the information structure of the industry. The results of the survey are used to highlight the competitive issues which could arise from the asymmetric distribution of information in the sector.

### 6.1 Consumer Ignorance

The first major indicator of consumer ignorance is observed in the distribution of responses to question q1a in the consumer survey. The responses are summarised below in Figure 6.1 below.

**Figure 6.1 Many Consumers Have Never Heard of the Term ‘Generic Medication’**





It shows that 38.9 percent of consumers have never heard of the term ‘generic medication’ with another 24.6 percent not sure what the term refers to. This degree of ignorance is alarmingly high and suggests that the normal channels of information to the ‘informed’ consumer are not readily accessible to these consumers. For the Financial Years ended 2006 and 2005 the MoH allocated JMD 191.0 million (1.7 percent of budget) and JMD 182.2 million (1.2 percent of budget) to its Technical Services Planning programme which among other things, is responsible for Health Promotion and Protection. In addition the National Health Fund (NHF) spent a total of JMD 69.6 million and JMD 56.2 million<sup>32</sup> respectively in the same time periods on advertising and public relation initiatives. These amounts expended by the NHF represent 4.4 percent and 2.1 percent, respectively, of its total income. It is to be noted that pharmacies are required under the law, to inform consumers of the availability of generic medication; and the GOJ has an extensive public education programme aimed at educating the general public of the use of and availability of generic medication.

One means of developing a targeted information dissemination program is to establish a profile of this set of ignorant consumers. To construct a profile, we disaggregated the responses into various demographic statistics. The results are presented in the series of tables below:

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<sup>32</sup> The weighted average rate of exchange between the United States Dollar (USD) and the Jamaican Dollar (JMD) at April 1, 2005 and April 1, 2006, was JMD1:USD61.4028 and JMD1:USD65.3793, respectively.

**Table 6.1 % of ‘Unaware’ Consumers, by various Demographic Statistics**

	<b>%</b>	<b>Number of Respondents</b>
Sample	38.9	1,022
<i>By age</i>		
18-24	56.6	106
25-29	34.7	127
30-34	33.6	110
35 -44	32.4	213
45-59	36.1	258
60-74	44.8	154
>75	52.2	46
<b>Total</b>		<b>1014</b>
Number of non-responses		16
<i>By region of residence</i>		
KMA	28.7	289
Rural Area	44.5	578
Other towns	37.8	151
<b>Total</b>		<b>1018</b>
Number of non-responses		12
<i>By combined salary of household (\$000s)</i>		
0- 20	48.5	291
20-40	39.6	217
40-60	29.0	93
60 -80	32.6	46
80-100	16.7	18
> 100	18.8	16
Refused	36.0	175
Do not know/ can not recall	37.8	143
<b>Total</b>		<b>999</b>
Number of non-responses		31
<i>By access to Internet</i>		
Yes (have access)	28.6	304
No (do not have access)	43.7	702
<b>Total</b>		<b>1006</b>
Number of non-responses		24

Table 6.1 shows that there is a “U” shaped relationship between age and the proportion of persons who have never heard of the term ‘generic medication.’ The proportion of uninformed consumers increases uniformly for older or younger age groups. More than half of the youngest and oldest age groups indicated that they had never heard the term ‘generic medication.’ Individuals in the ‘35-44’ age cohort were the most informed as only 32.4 percent of them indicated that they had never heard of the term.

The table also shows that 44.5 percent of respondents residing in rural areas are unaware of the term “generic medication.” This is significantly above the 28.7 percent recorded for persons residing in the Kingston Metropolitan Area (KMA) and slightly above the sample average of 38.9. It is also shown that 43.7 percent of persons who do not have access to the Internet claimed to have never heard the term.

It should be noted also that 48.5 percent of respondents in households with a combined monthly salary of less than JMD 20,000 indicated that they had never heard of the term ‘generic medication,’ whilst only 18.8 percent of persons in households earning in excess of JMD 100,000 monthly indicated the same. It was also observed that 43.7 percent of respondents who do not have access to the Internet indicate that they have never heard of the term ‘generic medication’ compared to the 28.6 percent of the respondents with access to the Internet who indicates the same.

**Table 6.2 % of ‘unaware’ consumers, by occupation and education of household head**

	<b>%</b>	<b>Total</b>
Sample	38.9	
<i>By occupation of head of household<sup>1</sup></i>		
Legislators, senior officials & managers	0.0	3
Professionals	29.2	65
Technicians and Associate Professions	36.4	11
Clerks	31.0	126
Service Workers and shop and market sales workers	41.1	231
Skilled agricultural and fishery workers	46.9	49
Craft and related trades workers	55.6	36
Plant and machine operators and assemblers	43.9	41
Elementary occupations	47.6	63
Armed forces	100.0	2
Unclassified <sup>2</sup>	37.7	374
<b>Total</b>		<b>1001</b>
Number of non-responses		29
<i>By education of head of household</i>		
No formal education	25.0	16
Primary/ preparatory	47.1	295
Secondary/ High	39.4	396
Vocational/ Technical	34.0	103
College	32.3	99
University	23.9	67
<b>Total</b>		<b>976</b>
Number of non-responses		54

Notes:

1. Occupation classification done according to STATIN (1995).
2. This category captures individuals whose response was too ambiguous to classify their occupation in any of the categories listed above. For instance individuals who responded “unemployed”, “retired”, “pensioner”, etc. are counted in this group.

Table 6.2 shows that with the exception of the armed forces, the 55.6 percent of persons in ‘craft and related trades’ who had never heard of the term ‘generic medication’ was higher than the comparable proportion in any other listed classification of occupation. The results in the ‘elementary’ (47.6 percent) and ‘skilled agricultural and fisheries’ (46.9 percent) occupations were also noticeably above the population proportion of 38.9 percent.

The responses to question q31 of the consumer survey provide an insight into the extent to which consumers are equipped with a basic element of information, i.e. places to report difficulties, and places at which persons may obtain assistance in getting redress

for problems encountered in the pharmaceutical industry. They show that 40.4 percent of consumers could not identify any place at which they may obtain redress for problems encountered in the pharmaceutical industry. To what extent are consumers who had never heard of the term generic medication overrepresented in this group? This question is answered in Table 6.3 below.

**Table 6.3 Known Places to Seek Consumer Redress, by ‘awareness’ of consumers**

	% of respondents		
	All	Never heard of ‘generics’ [unaware consumers]	Heard of ‘generics’ [aware consumers]
Institutions to get help			
MoH	22.6	13.2	28.4
Health care facility	21.7	26.6	17.5
Physician	13.9	15.9	12.6
CAC	6.4	4.2	8.0
Mass Media	3.8	2.1	4.8
Pharmacist	3.8	1.8	3.8
Lawyer	1.9	1.8	2.1
Police	1.9	1.8	2.1
Jamaicans for Justice (JfJ)	1.0	0.6	1.3
Medical Association of Jamaica (MAJ)	1.0	0.6	1.3
FTC	0.6	0.3	0.8
NHF	0.6	0.0	1.0
Health Insurer	0.5	0.3	0.6
Head of own work place	0.5	0.9	0.2
Ombudsman	0.2	0.3	0.2
Church	0.2	0.3	0.2
Bureau of Standards Jamaica (BSJ)	0.2	0.3	0.2
Parliament	0.1	0.0	0.2
Medical Council of Jamaica	0.1	0.0	0.2
Family/ friends	0.5	0.3	0.0
Council for the elderly	0.1	0.3	0.0
Other	0.3	0.6	0.0
Do not know	40.4	41.9	40.0
<b>Total &gt; 100% because respondents were allowed to give multiple answers</b>			
Number of respondents	876	334	525
Number of non-responses	154		

Table 6.3 shows that there is a negligible difference in the proportions of ‘unaware’ and ‘aware’ consumers who do not know where they could go to get redress for problems encountered in the pharmaceutical industry. This point to a deficiency in either the

communication channels or the quality of the information transmitted to consumers regarding their basic rights.

## 6.2 Where do consumers get information?

In this section, we highlight the most common sources of information for consumers. Knowledge of the best information channel is necessary, but not sufficient, for any information to be disseminated effectively to consumers. Responses to question q4 in the consumer survey identified the information channels that provide consumers with the greatest amount of information on prescription medication.

The question asked respondents to “Rank the following sources of information in order of your exposure to information on prescription medication using 1 to indicate the source that provides you with the greatest amount of information.” The sources ranked as number 1 are presented in Table 6.4 below.

**Table 6.4 Sources of Information Ranked as #1 based on Volume of Information**

<b>Greatest exposure to medical information</b>	<b>% of respondents ranking source greatest volume of information</b>
During visit to Doctor	55.6
Television	25.0
Internet	5.1
Radio	7.3
Newspaper	3.9
Flyers/ Brochures/ Magazines	3.1
<b>Total</b>	<b>100.0</b>
Number of Respondents = 356	
Number of non-responses 15	

Table 6.4 shows that 55.6 percent of consumers indicated that the volume of information they receive ‘during the visit to their physician’ is greater than the volume received at any other source. By way of comparison, mass media (i.e. television, radio and newspaper) provide the greatest volume of information for 37.4 percent of the respondents.

### 6.3 Who is best at informing consumers?

This section explicitly recognises that information is an economic good; and like most other economic goods, is heterogeneous. That is, information provided via different sources may not be perceived by consumers to be the same. Therefore, consumers may respond differently to a given piece of information depending on the source of that information. Presumably, consumers will react only to information they deem to be of high quality (believable). Question q3a in the consumer survey asks respondents to “... rank the following sources of medical advice in order of credibility where 1 is most believable, 2 is second most believable, 3 is third most believable, and so on.” The responses are summarised in Table 6.5 below.

**Table 6.5 Source of Medical Advice ranked as #1, based on credibility**

Source of medical advice	% of respondents ranking source as most believable
Doctor	77.4
Pharmacist	9.4
Family/ friends	4.3
Drug manufacturers/ importers	3.2
Ministry of Health (MoH)	3.5
Internet	1.3
Testimonials (word-of-mouth from strangers who have used the medication)	0.8
<b>Total &lt; 100% due to error in rounding</b>	<b>99.9</b>
Number of respondents = 371	
Number of non-responses = 0	

Table 6.5 shows that 77.4 percent of consumers rank the advice given by their physician above the advice from any other source. Another 9.4 percent trust pharmacists above all other sources. It should be noted that the MoH, Internet and Testimonials are regarded as the most credible sources of information by a 5.6 percent of the respondents.

#### 6.4 How dissimilar is the information supplied by different sources?

In this section, we measure the degree of differentiation among the various sources of information. Responses to questions q3b and q3c in the consumer survey provide us with a way of identifying heterogeneity in the information supplied by the various sources.

Question q3b asks consumers “... consider the top two sources [of information] in terms of credibility: How would you describe the information you receive from both sources?” The respondents were instructed to select only one of four options. The responses are summarised in Table 6.6 below.

**Table 6.6 Similarity of Information disaggregated into pairs of credible sources**

<b>Information from #1 and #2 ranked sources</b>	<b>% of respondents</b>
Identical/ very similar	40.1
Somewhat similar	53.0
Somewhat different	6.4
Very/completely different	0.6
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>
Number of respondents	
Number of Non-responses	

Table 6.6 above shows that 40.1 percent of consumers indicated that the information received from their two most credible sources of information is identical/very similar. Another 53.0 percent indicated that the information received from the most credible source was ‘somewhat similar’ to the information from the second most credible source. This means that 93.1 percent think that similar information received from their two most credible sources of information.



In Table 6.7 below, we disaggregate the information above into various pairs of top two sources.

**Table 6.7 Similarity of Information, by top two most credible sources**

	Top two most credible sources of information			
	Doctor & family/friends	Doctor & MoH	Doctor & Drug manufacturer/importer	Doctor & pharmacist
Identical/ very similar	32.1	39.0	28.7	43.8
Somewhat similar	53.6	58.5	71.4	50.9
Somewhat different	10.7	2.4	0.0	5.4
Completely/ very different	3.6	0.0	0.0	0.0
Total	100.0	99.9	100.1	100.1
Number of respondents	28	41	21	224
Number of non-responses				

Notes:

1. Information disaggregated for only those pairs of sources selected by more than 15 respondents.

A negligible proportion of consumers perceive differences in the information provided by their two most credible sources of information. In Table 6.7 above, we report information for only those pairs of sources for which more than 15 persons selected as their top two sources of information. The table shows that 43.8 percent of the 224 respondents who listed physicians and pharmacists as their two most credible sources of information think that the information provided is ‘identical/ very similar’. The table also demonstrates that at least 85.7 percent of consumers believe that the information provided by their top two sources is either very similar or somewhat similar.

We now report on a similar question which asked respondents to compare the information provided by their second and third ranked sources of information. Question q3c asks consumers to “...consider the second and third sources in terms of credibility. How would you describe the information you receive from both?” The respondents were instructed to select only one of four options provided. The responses are summarised in Table 6.8 below.

**Table 6.8 Similarity of Information from #2 and #3 ranked most credible sources**

Information from #2 and #3 ranked sources	% of respondents
Identical/ very similar	13.5
Somewhat similar	59.4
Somewhat different	20.9
Very/completely different	6.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 355	
Number of non-responses = 16	

Table 6.8 above also shows that 72.9 percent of the respondents think that similar information is provided by their second and third ranked sources; this total comprise 13.5 percent who think that the information is ‘identical/very similar.’

In Table 6.9 below, we disaggregate the data presented in the Table 6.8 above.

**Table 6.9 Similarity of Information, by #2 and #3 Ranked most Credible Sources**

	Second and Third Ranked Most Credible Sources of Information				
	Doctor & pharmacist	MoH & pharmacist	Manufacturer/ importer & pharmacist	Family/friends & pharmacist	MoH & Doctor
Identical/ very similar	33.3	12.4	19.6	4.2	15.0
Somewhat similar	47.6	64.8	80.4	42.3	75.0
Somewhat different	14.3	21.9	0.0	38.0	5.0
Completely/ very different	4.8	1.0	0.0	15.5	5.0
<b>Total</b>	<b>100.0</b>	<b>100.1</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	21	105	51	71	20
Number of non-responses	350	266	320	300	351

Notes:

1. Information disaggregated for only those pairs of sources selected by more than 15 respondents.

Table 6.9 shows that the greatest disparity in the information is perceived among respondents who list family/friends & pharmacists as their second and third highest ranked sources of information. This is inferred from the fact that only 46.5 percent of them believe that similar information is provided by the two sources.

The analysis above indicates that similar information is provided by the top two sources of information- physicians and pharmacists, to consumers. There are perceived differences, however, between the information provided by these top two sources and other sources of information.

## **6.5 Summary**

The chapter highlights the information structure of the pharmaceutical sector. It reveals the high degree of information asymmetries among consumers in pharmaceutical sector as it shows that a non-negligible proportions of consumers are without information that would be relevant to their decision making process. For instance, approximately 38.9 percent of consumers have never heard of the term ‘generic medication’ and approximately 40.4 percent could not name any place they could go to seek redress for problems which they might encounter in the pharmaceutical sector. This level of ignorance is greater among the youngest and oldest consumers; consumers living in the Rural Areas; consumers living in households with a combined monthly income below JMD 20,000; and persons who do not have access to the Internet.

It is also evident that physicians are the most important vehicle for disseminating information to the public as 55.6 percent of consumers get most of their information about the health care sector through physicians and 77.4 percent believe that physicians provide the most credible medical advice.

Some degree of heterogeneity in the information provided by various sources is also observed. Specifically, 93.1 percent of consumers believe that similar information is provided by their two most credible sources of information but only 72.9 percent of consumers believe that their second and third ranked most credible sources of information provide similar information.

The ignorance of consumers highlighted in this chapter could be exploited by firms to acquire, maintain and extend market power.

## **7. COMPETITION ISSUES IN THE PHARMACEUTICAL SECTOR**

In this chapter, we examine whether there are any competition issues that arise out of the distribution of prescription medication in Jamaica. The results of all the surveys form the basis of determining whether or not competition issues exist. Although the questionnaires enquire about specific anticompetitive conduct, they were also designed to capture general forms of potentially anticompetitive behaviour such as (i) vertical agreements, (ii) horizontal agreements and (iii) unilateral conduct.

### **7.1 The ‘Physical’ Structure of the Sector**

The main pieces of legislations which regulate the sale and use of pharmaceuticals in Jamaica are The Dangerous Drug Act (1948), The Food and Drug Act (1975) and The Pharmacy Act (1975). The Pharmacy Council of Jamaica (PCJ), which was established in 1975 and The Standards and Regulation Division of the Ministry of Health (MoH), established in 1999, are the main regulatory bodies of the pharmaceutical sector.

The ‘physical’ structure of Jamaica’s public health sector as reported on by Industry Canada (2004) states that as at the date of the study, Jamaica had more than twenty-three (23) hospitals, three hundred and forty-three (343) health centres, and over three hundred (300) registered pharmacies. According to the PCJ, as at February 2006 there were thirty (30) registered manufacturers and distributors of pharmaceuticals in Jamaica; and the Jamaica Gazette of November 10, 2004 states the number of registered doctors as being two thousand four hundred and nine (2,409).

### **7.2 Relationships among Business Enterprises in the Sector**

The independence of the decision-making processes of business enterprises is a crucial feature of competitive markets. Consequently, the extent of vertical and horizontal integration and restraints among business enterprises is very important in characterising the efficiency of the distribution sector. While vertical integration and restraints may benefit or harm competition, in general, some horizontal integration and restraints

(especially agreements involving prices, quantities or market segmentation) only pose a threat to the competitive process; and hence to the efficiency of the sector.

#### 7.2.1 Distributors

The degree of interconnectedness (i.e. integration and restraints) of distributors is captured with responses to questions f3a and f3b of the distributor survey. The results show that there are six (6) distributors (46.2 percent) which have relationships with manufacturers and that there are seven (7) distributors (50.0 percent) who have business relationships related with other distributors. When asked to indicate the nature of the relationship, the distributors with links to manufacturers explained that they are (i) subsidiaries, (ii) agents, (iii) exclusive distributors for the manufacturer's products and (iv) "strategic partners" of the manufacturers. When asked to indicate the nature of their relationship with other distributors, one distributor mentioned that they belong to the same group, while four wholesalers indicated that they are affiliated with distributors in 'other' ways. These other ways are summarised in Table D-5 in Appendix D.

#### 7.2.2 Retailers

A total of thirty six pharmacies responded to question f3a which asks whether they have any affiliation/business relationships with any other entity in the industry. The results reveal that pharmacies are affiliated with manufacturers, wholesalers, HMOs and physicians. Specifically, one pharmacy indicated that it was affiliated with a manufacturer, one with an HMO, two (2) with wholesalers, and four (4) with physicians.

#### 7.2.3 Physicians

The physicians' survey indicates that only 5 of the 241 physicians are associated with at least one other player in the pharmaceutical industry. Three physicians (1.2 percent) indicated they have business relationships with manufacturers; three (1.2 percent) with wholesalers; two (0.8 percent) with importers and four (1.6 percent) with "other" players.

The linkages between physicians and other market players are explored in questions q18a and q18b in the physician survey. The responses are summarised in Table B-35. It shows that only 6 of the 240 physicians who responded to question q18a indicated that they have business linkages to other market players.

Based on these responses, it seems unlikely that medications being prescribed are being influenced by conflicting interests arising out of business linkages between physicians and other players.

### **7.3 Market Power in the Pharmaceutical Sector**

Significant market power is the central focus of any competition law regime. While competition law does not prohibit firms from acquiring, having or extending market power, it generally restricts the steps which firms may take to do this. In evaluating such market power competition authorities generally examine factors such as market share, market concentration and barriers to entry and exit.

#### **7.3.1 Number of Competing Firms**

In the absence of relevant market share and entry/exit barrier data, we attempt to analyse the extent of concentrated market power in the pharmaceutical sector by examining the number of firms which are in direct competition with each other. *Ceteris paribus*, market power is more concentrated in markets with few competing firms than in markets with many competing firms.

#### **Distribution Level**

Although there are thirty (30) distributors and manufacturers of pharmaceuticals registered to operate in Jamaica as at February 2006, any degree of 'localised competition' would dictate that the number of firms directly competing with each other is less than the total number of firms operating in the market. Question f2 in the distributor survey was crafted to capture the extent of localised competition at the distribution level. The results are presented in Table D-2 in APPENDIX D and show a clear level of

asymmetry as it relates to the level of perceived rivalry among the fourteen distributors responding to the question. At one extreme, there are three distributors (21.4 percent) who do not think they have any rival; and at the other extreme there are two distributors (14.3 percent) who indicate that they have as many as twenty eight main rivals. Overall, competition appears to be localised since eight distributors indicate that they have no more than six main rivals.

#### Retail Level

There were 353 enterprises registered as pharmacies as at February 2006. There is evidence that it would be relatively easier for competing pharmacies than for distributors to arrive at a consensus as the study confirms that competition among pharmacies is highly localized since the majority of respondents (63.0 percent) indicated that they have fewer than three main rivals. This observation is deduced from responses to question f8 which are summarized in Table C-22 in APPENDIX C.

#### 7.3.2 The Basis for 'localised' Competition

It would be informative to know the basis on which competition is "localised" in the pharmaceutical sector. If, for instance, there is localised competition based on an artificial segmentation of the market then it would raise serious anticompetitive issues; if, however, localised competition is based on a legitimate factor such as the "product line" of distributors, then it would not raise any concern for competition. Markets may be segmented into geographic regions or customer types. Geographic market segmentation refers to an arrangement whereby firms agree to actively sell products only within specified geographic boundaries while customer market segmentation refers to an arrangement in which firms agree to sell their products only to customers with specified characteristics.

### 7.3.2.1 Localised competition based on Market Segmentation

To assess the incidence of market segmentation at the manufacturer level, we examine the extent to which it is manifested at the distribution level. To do this, we examine the prevalence of single-sourcing at the distribution level and the main reasons for this practice. There are at least four distributors who receive their supplies from a single source (Table D-43 in APPENDIX D). Distributors offer legitimate commercial reasons for such single-sourcing, however, which does not suggest that single-sourcing resulted from market segmentation by manufacturers (Table D-44 in APPENDIX D).

The incidence of geographic market segmentation at the distributor level is captured in Table D-47 in Appendix D. The study shows that Portland is the only parish that is not supplied by all fourteen distributors. It seems unlikely therefore, that there is geographic market segmentation at the distribution level based on parish boundaries.

Question q10 of the distributor survey was designed to capture the extent of customer segmentation among distributors. The responses to this question are summarised in Table D-36 in Appendix D, which shows that at least nine distributors report supplying the main customers of distributors: pharmacies, hospitals, medical centres and clinics.

### 7.3.2.2 Localised Competition Based on the Type of Chronic Ailment

There is little evidence that localised competition is based on the type of chronic ailment; this as pharmaceuticals used to treat arthritis, asthma and hypertension are supplied by at least nine distributors; and pharmaceuticals used to treat the other two ailments are supplied by at least six distributors. This information is gathered from the responses to question q11a in the distributor survey. The ailments considered were restricted to the five which are the focus of the study: arthritis, asthma, high cholesterol, diabetes and hypertension. The responses are reported in Table D-37 in APPENDIX D.



### 7.3.2.3 Localised Competition Based on Type of Medication

We explored the extent to which localised competition could be based on the type of pharmaceutical medication, i.e. innovator or generic supplied by the distributors. To undertake this analysis, we cross-tabulated question f2 (the number of main rivals) with question q11b (the types of drugs supplied). The results are disaggregated by ailment and are summarised in Table 7.1 below.

**Table 7.1 Number of Main Rivals by Ailment and Medication Type**

	Number of main rivals									Total
	0	3	4	5	6	7	8	9	28	
<b>Type of drugs supplied</b>										
<i>Arthritis</i>										
- generic only	--	--	--	--	2	1	1	--	1	5
- innovator only	--	--	--	--	--	--	--	1	--	1
- both	1	1	--	1	--	--	--	--	--	3
Total	1	1	--	1	2	1	1	1	1	9
<i>Asthma</i>										
- generic only	--	--	--	--	2	--	--	--	1	3
- innovator only	1	--	--	--	--	--	1			2
- both	1	1	--	1		--		1	1	5
Total	2	1	--	1	2	--	1	1	2	10
<i>High Cholesterol</i>										
- generic only										
- innovator only										
- both	1	1	--	1	1	--	--	1	1	6
Total	1	1	--	1	1	--	--	1	1	6
<i>Diabetes</i>										
- generic only	--	--	--	--	2	--	--	--	--	2
- innovator only	1	--	--	--	--	--	--	1	--	2
- both	1	1	--	1	--	--	--	--	1	4
Total	2	1	--	1	2	--	--	1	1	8
<i>Hypertension</i>										
- generic only	--	--	--	--	2	1	--	1	1	5
- innovator only	1	--	--	--	--	--	--	--	--	1
- both	1	1	--	1	--	--	--	1	1	5
Total	2	1	--	1	2	1	--	2	2	11

The relationship between type of medication and extent of localised competition is more defined for prescription medication used to treat arthritis than those used to treat other ailments. The table above shows that the three firms which carry both types of arthritis medication indicate that they have fewer main rivals than firms which do not carry both types. The same cannot be said for prescription medication used to treat the other four ailments. Chi-square analysis was used to test whether there is a statistically significant relationship between the types of pharmaceuticals carried by distributors and their perceived number of rivals. The analysis was carried out separately for each ailment but a statistically significant relationship was found only in the distributors of arthritis medication.

## **7.4 The Probable Effect of Specified Conduct on Competition**

### **7.4.1 Tied-Selling**

Tied selling is the practice by which a supplier obliges its customers to obtain goods or services from it or its affiliates, as a condition for obtaining another good or service that is, by its nature and according to commercial usage, distinct from and unrelated to the first good or service.

In general, tied-selling does not raise any competition concerns except in instances where the firm is dominant in the market for the tying product; and even then there might be legitimate justification (efficiencies to be gained) from tied-selling. The incidence of tied-selling is explicitly captured by question q18a in the distributor survey. The responses to the question are presented in Table D-48 and show that only one of the twelve respondents indicated that it engages in tied-selling. The response to question q18b indicates that the tying products are pharmaceutical medication used to treat asthma and hypertension; that is, retailers are required to purchase other types of medication in order to acquire asthma and hypertension medication sold by this respondent. This distributor supplies only generic asthma and hypertension medication.

Table 7.1 above indicates that there are seven other distributors who carry generic asthma medication and nine other distributors who carry generic hypertension medication.

**Table 7.2 Number of Distributors by Ailment and Medication Type**

<b>Type of drugs supplied</b>	<b>Number of Distributors</b>
<i>Arthritis</i>	
- generic	8
- innovator	4
<b>Total</b>	<b>12</b>
<i>Asthma</i>	
- generic	8
- innovator	7
<b>Total</b>	<b>15</b>
<i>High Cholesterol</i>	
- generic	6
- innovator	6
<b>Total</b>	<b>12</b>
<i>Diabetes</i>	
- generic	6
- innovator	6
<b>Total</b>	<b>12</b>
<i>Hypertension</i>	
- generic	10
- innovator	6
<b>Total</b>	<b>16</b>

Although there is evidence of tied selling in the distribution sector the fact that there are other suppliers who do not engage in this practice and also that none of the retailers indicated that they have ever been compelled into tied buying by any distributor, there is little reason to suspect that this conduct is lessening competition substantially.

#### 7.4.2 Exclusive Dealing

“Exclusive dealing” generally refers to an agreement between a supplier or manufacturer and its customer, whereby the customer is restrained from dealing with any of the

supplier's competitors. Exclusive deals raise competition concerns as they may foreclose the market to competitors and new entrants. The term "exclusive dealing" includes not only explicit agreements but also arrangements that indirectly lead to the same exclusionary effect on competitors. Under certain circumstances exclusive arrangements may have pro-competitive effects in that they may promote non-price competition and improvement in quality of service.<sup>33</sup>

Eight of the eleven distributors indicated that they are exclusive distributors of pharmaceutical medication in Jamaica. There is nothing inherently problematic with firms distributing medication exclusively. One way of assessing the likely effects of the practice of tied-selling at the distributor level would be to examine the extent to which the distributor has market power in the tying product market. Having exclusive rights to distribute a type of medication that commands a relatively high demand would vest the distributor with market power that is sufficient to undermine the competitive process. A cross-tabulation of questions q16a (exclusive distribution) and q18a (tied-selling) in the distributor survey provides the necessary information. The results are displayed in Table 7.3 below.

**Table 7.3 Exclusivity of Distribution, by Tied-Selling**

	<b>Do you require retailers to purchase drug Y, in order to get another drug X?</b>		<b>Total</b>
	Yes	No	
<b>Are you an exclusive distributor of any product?</b>			
Yes	0	9	9
No	1	2	3
<b>Total</b>	<b>1</b>	<b>11</b>	<b>12</b>
Number of non-responses = 2			

There is no evidence to suggest that any of the nine distributors who responded to both questions q16a and q18a is abusing its dominance to unduly lessen competition in other markets through tied-selling; this as Table 7.3 shows that the distributor who engages in

<sup>33</sup> See FTC (2004) for further details.

the practice of tied-selling is not an exclusive distributor of any pharmaceutical medication.

#### 7.4.3 Resale Price Maintenance (RPM)

Theoretical studies suggest that RPM can be either pro-competitive or anticompetitive. While most competition legislation allows manufactures to suggest the resale price of his products, the enforcement of minimum resale prices (through reward or punishment) is generally prohibited under competition law.

##### Manufacturing Level

The study does not include a survey of manufacturers. The incidence of RPM by manufacturers is discerned only from the survey of distributors. There is some evidence that manufacturers are engaged in RPM as the results show that two of the four respondents who face suggested resale prices from distributors (which is not prohibited under the FCA) think that they would be penalized (which is prohibited) for not following the suggested price. The extent of RPM by manufacturers is summarized in Table D-24 in APPENDIX D.

##### Distribution Level

The instances of RPM by distributors is captured in question q6c in the distributor survey (see Table D-27 in APPENDIX D ) and cross-checked with question q22b in the retailer survey (see Table C-66 in APPENDIX C).

Two distributors indicated that while they recommend resale prices to their customers (retailers), neither of them impose penalties on retailers who do not adopt the recommended prices. This is corroborated by the fact that none of the four retailers who indicated that their suppliers recommend resale prices, believed that they would be penalised for not adhering to the recommendations. There is therefore no evidence that distributors are engaged in RPM.

#### 7.4.4 Horizontal Agreements in the Pharmaceutical Sector

Horizontal agreements can be defined as arrangements among entities in competition with each other. Agreements relating to prices, production levels and market segmentation have been found to pose the greatest threat to competition. In this section, we examine the characteristics of the pharmaceutical sector that could facilitate collusive agreements.

##### 7.4.4.1 Facilitating Factors

Collusive arrangements are inherently unstable in the sense that at least one party to the arrangement will always have an incentive to deviate from the terms ('cheat') as long as the other parties do not cheat. For a collusive arrangement to be successful, the parties must be able to coordinate around an outcome, monitor the behaviour each other and effectively punish cheaters.

The ability to successfully collude is affected by the structure of the market. The economics literature has established that the following factors facilitate collusion<sup>34</sup>: (i) fewer competitors; (ii) entry barriers; (iii) frequent interactions; (iv) market transparency; and (v) demand growth. The following factors have been found to hinder collusion: (i) business cycles and demand fluctuation; (ii) innovative markets; (iii) cost asymmetries; (iv) asymmetries in capacity; and (v) greater differentiation of quality.

The distributor and retailer questionnaires were designed to capture the extent to which the market favours collusion, among other things. The questionnaires were designed to assess only two of the market characteristics outlined above: (i) the 'number of competitors' and (ii) 'market transparency'.<sup>35</sup>

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<sup>34</sup> Results taken from Ivaldi *et al* (2003).

<sup>35</sup> The questionnaires were not designed to capture the likely effectiveness of punishment.

#### 7.4.4.2 Number of Competing Firms

The number of firms competing in a market influences the likelihood of collusion in that market. *Ceteris paribus*, the fewer competitors there are in a market, the easier for the firms to reach a consensus and effectively monitor each other.

The number of competitors at the distribution and retail levels was examined in section 7.3.1. Firms operating at the retail market are observed to have fewer competitors than firms operating at the distribution level. This implies that, all other things being constant, collusive conduct is more likely to be established at the retail level than at the distribution level based on the number of competing firms at each level of the distribution chain.

#### 7.4.4.3 Market Transparency

Market transparency refers to the ease with which the actions taken by a firm can be observed by other firms. The free flow of information is of course a very important aspect of competition as it can have anticompetitive and procompetitive effects, based on the type of information disseminated. Information relating to firm specific price and/or quantity produced will pose a greater threat to competition than will information on other aspects of business strategies.

##### 7.4.4.3.1 Trade Associations

A trade association is one mechanism that could facilitate a greater level of market transparency by providing a channel through which information can be disseminated among rival firms.

#### Distribution Level

Ten of the fourteen distributors surveyed indicated that they are members of at least one of three (3) trade associations, namely the Jamaica Chamber of Commerce (JCC), the Pharmacy Council of Jamaica (PCJ), and the Pharmaceutical Society of Jamaica (PSJ).

It is to be noted that the JCC's membership comprises not only distributors and retailers from the pharmaceutical sector but also stakeholders from most industries in Jamaica, for

example, the banking, agriculture, tourism sectors, etc. The PCJ and PSJ comprise persons and entities from the pharmaceutical sector only. Ten of the sixteen members of the PCJ are appointed by the MoH, while the other six are nominated by the PSJ. On the other hand the PSJ comprises only pharmacists and pharmacy owners. With respect to frequency of meetings, the members of the JCC meets once per year for its Annual General Meeting and at least four other times each year; the PCJ meets ten times per year; and the PSJ meets once per month. The extent to which these Associations may be (ab)used to facilitate collusion is assessed based on the type of information exchanged through the association.

Table D-59 summarises the types of information which are disseminated by the Associations. These include data on newly developed drugs, changes in the regulatory environment and other information that could only serve to improve the efficiency of the distributive sector.

The responses to question q22a, summarised in Table D-54 in APPENDIX D, indicate that ten of the fourteen distributors are members of at least one trade association. Table D-56 indicate that the frequency with which the trade associations meet ranges from once a month to once a year.

Tables D-57 and D-59 of Appendix D indicate that seven distributors receive distributor specific information such as market growth trends, employment data, changes in the laws and Government policies as well as information on newly developed drugs, through trade associations; but only one distributor indicated that he received distributor specific “price/quantity” information.

#### Retail Level

Table C-9 in Appendix C, the summarised results of question q5a, reveals that twenty-eight of the thirty-six retailers who responded to the question are registered members of trade associations. The number of meetings of these trade associations ranges from one meeting per year to eight meetings per year (Table C-11 in Appendix C). The table



reveals that seven (25.0 percent) retailers confirm that retailer-specific information is disseminated through the association. Information on continuing education programmes/seminars/best practices, new drugs, rules and regulations and developments in the industry. Two of the seven retailers state that information on the prices and/or quantities from individual entities is revealed. (Table C-14).

#### 7.4.4.3.2 Public Pre-announcements

The public pre-announcement of changes in business strategy is another means through which firms can implement collusive arrangements and thereby allow conspirators to undermine the competitive process.

#### Distribution Level

The incidence of public pre-announcement is captured in questions q26a through q26e of the distributor questionnaire. Table D-64 in Appendix D reveals that eight of the thirteen distributors who responded indicated that they pre-announce changes in their business strategies. Six of these eight distributors indicated that they pre-announce price changes while all eight said they pre-announce changes in the availability of their drugs. Despite the fact that public pre-announcements of information on quantity have the potential to distort competition in a market, such pre-announcements may convey information to the public and could serve to improve competition. It must be noted that the effect of public pre-announcement of price changes is ambiguous; and that if a consumer welfare enhancing justification is proven, it may not be cause for concern to a competition agency. Indeed there are legitimate reasons why a distributor might want to inform actual or potential customers (retailers) of pending price changes. Table D-66 in Appendix D demonstrates that five of the six distributors communicate price changes to retailers. What initially raises concern in Table D-66 is the fact that one of the six distributors communicates pending price changes to rival distributors. Normally, this would be considered to be highly suspicious behaviour. An examination of the data reveals, however, that the distributor sources drugs from an overseas manufacturer on behalf of other distributor(s). This being the case, the distributors share a horizontal and

vertical relationship which, without more, precludes us from making any definitive statement about the effect of such pre-announcements on the competition in the industry.

#### Retail Level

Table C-56 through Table C-58 in Appendix C of the retailer survey illustrate that three (8.3 percent) retailers pre-announce changes in their business strategy. Although two of these retailers pre-announce changes in their prices, that information is not communicated to competing retailers and therefore, raises no concerns for competition at this level of the supply chain.

### **7.5 Other Conduct**

In this section we look at other conduct which may have competition effects.

#### Distribution Level

The incidence of distributors being adversely affected by actions of other entities is captured in Table D-6 of Appendix D, which shows that six of the distributors who responded to the question are adversely affected by activities of other entities. Table D-7 shows that only one distributor is affected by another distributor which was alleged to be engaged in “parallel importation of drugs”.

#### Retail Level

The incidence of retailers being adversely affected by the actions of stakeholders in the industry which adversely affected the ability of their pharmacies to supply drugs to consumers is captured in Table C-69 in Appendix C. Table C-70 in Appendix C shows that four of the seven retailers who are affected by other entities in the pharmaceutical industry were affected by distributors. It also captures the incidence of retailers being adversely affected by the actions of other retailers. None of the seven retailers which are so affected by other entities in the pharmaceutical sector are affected by another retailer.

An examination of the actions/activities indicates that only one of the four retailers stated an action/activity that could raise anticompetitive concerns; that is “high prices ...” There

are a number of possible interpretations and since the data does not allow for a conclusive assessment to be made, additional information would be required draw any meaningful conclusion.

## **7.6 Summary**

This chapter assesses the possible sources of (active) market power in the pharmaceutical sector. Firstly, the chapter highlights the degree of interconnectedness among the various players at various levels of the supply chain. Approximately seven out of fourteen distributors have business relationships with other distributors; seven out of thirty six pharmacies indicate that they have relationships with other players in the industry and 5 out of 241 physicians indicate that they have relationships with other players. None of the stated relationships suggests that any of these relationships are being used to facilitate anticompetitive practices.

Secondly, we assess the degree to which the pharmaceutical sector is susceptible to collusive conduct. The information extracted from the survey suggests that although Trade Associations provide valuable services to their members, they might be susceptible to facilitating collusive conduct. The FTC should express this concern to Associations and inform them of ways in which they can pre-empt firms from using them to engage in anticompetitive practices.

Lastly, the study finds some evidence of resale price maintenance at the manufacturing level and tied-selling at the distribution level. We find it unlikely that the tied-selling is having an undue influence on competition in the sector and the effect of RPM on competition could not be ascertained from the data collected. The effect of RPM should be examined further by the FTC.

The chapter found no evidence to suggest that firms are engaged in anticompetitive practices.

## 8. AN ASSESSMENT OF THE GOVERNMENT'S STRATEGY

In the mid-1990s, the GOJ embarked on a series of initiatives geared toward increasing the access of consumers to prescription medication. One of the initiatives was the establishment of the HCL, through which the Government distributes and retails prescription medication. The HCL was established in 1994 to streamline the supply of pharmaceutical, whether innovator or generic medication, and medical supplies to public sector hospitals and health departments. In 1996 the HCL was mandated to establish retail pharmacies under the Drug Serv Programme to operate drug windows on a commercial basis by providing competitively priced medication to the Jamaican public.

The GOJ also operates two health insurance programmes, namely the NHF and JADEP. The NHF provides two categories of benefits, (a) individual benefits which directly assist patients in filling prescriptions for any of fifteen chronic diseases; and (b) health promotion and protection support to private and public sector organizations for projects. The NHF takes an active role in educating the population and its beneficiaries on the importance of properly managing and treating their chronic conditions. Various strategies are used to achieve this including informational advertising and literature and seminars and promotions through public events.<sup>36</sup>

JADEP is managed by the NHF and its primary objective is to provide elderly Jamaicans with access to drugs for ten specified chronic ailments. The five (5) ailments which are discussed in this study are provided for under both of these insurance programmes.

In this chapter we assess the impact of the publicly funded health insurance programmes on consumer welfare. That is, we determine whether the above mentioned Government initiatives serve to enhance, hinder or have no effect, on competition in the industry. We define two distinct groups of consumers that stand to benefit from the publicly-funded health insurance programs. The *infra-marginal* group comprises consumers who are able to access prescription drugs without the publicly funded drug subsidization programme; while the *marginal* group is made up of consumers who would not have access to

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<sup>36</sup> The NHF website: <http://www.nhf.org.jm>

prescription medication without these programmes. Without discounting the welfare of infra-marginal consumers, we focus on the group of marginal consumers. We justify the focus on marginal consumers on the basis that this set of consumers is relatively more vulnerable than infra-marginal consumers are to the vagaries of the market process.

### **8.1 Demographic Characteristics of ‘Marginal’ and ‘Infra-Marginal’ Consumers**

Our assessment will be limited to a qualitative examination of the degree to which the publicly funded health insurance programme has been accessed by the marginal consumers only.<sup>37</sup> For purposes of the study, marginal consumers are identified as those who do not have access to health insurance other than one of the Government’s programs.<sup>38</sup>

In Table 8.1 and Table 8.2 below, we compare various demographic characteristics of marginal and infra-marginal consumers.

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<sup>37</sup> At the time when the project proposal was developed, we had hoped to carry out a quantitative assessment of the policy interventions by collecting price/quantity data on specific drugs sold by individual pharmacies and distributors/wholesalers. Despite the fact that a confidentiality agreement was included on the questionnaires most pharmacies expressed a reluctance to provide such information citing confidentiality concerns and the link between the research project and an international agency (the IDRC). Other pharmacies indicated that they did not have enough resources to divert to extracting the relevant information from their records at the time the information was being sought. In the end, the Commission received information from only seven pharmacies; this was not a large enough data set for us to undertake the proposed quantitative analysis.

<sup>38</sup> Thus we identify marginal consumers as those who responded with a “no” to the question q10 in the consumer questionnaire regarding whether respondents use a health insurance provider. This is admittedly a crude measure of marginal consumers, as defined in the study, since question q10 does not make a distinction between publicly and privately offered insurance programs. There is a possibility therefore, that persons who are insured through publicly funded programs only, and answered “yes” to question q10, would have been erroneously excluded from the group of marginal consumers. Further, some consumers without any insurance would nonetheless be able to afford prescription medication.

**Table 8.1 Breakdown of Consumers by Age, Residence and Income**

	<b>Infra-Marginal Consumers</b>	<b>Marginal Consumers</b>	<b>All</b>
By Age			
18-24	7.3	6.2	6.8
25-29	15.3	14.0	14.6
30-34	13.6	13.5	13.5
35-44	23.2	22.8	23.0
45-59	26.0	26.4	26.2
60-74	11.3	13.5	12.4
75 and over	3.4	3.6	3.5
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	177	194	370
Non-responses	0	1	1
Chi-square (6 degrees of freedom)= 0.6525; p-value=0.995			
By Residence			
KMA	35.2	28.4	31.6
Rural Area	47.2	55.2	51.4
Other Towns	17.6	16.5	17.0
<b>Total &gt; 100% due to error in rounding</b>	<b>100.0</b>	<b>100.1</b>	<b>100.0</b>
Number of respondents	176	194	370
Non-responses	1	0	1
Chi-square (2 degrees of freedom)= 2.5967; p-value=0.273			
By Income			
Less than 20,000	31.0	30.4	30.7
20,000-40,000	32.5	32.0	32.3
40,001-60,000	19.8	17.6	18.7
60,001- 80,000	8.7	11.2	10.0
80,001-100,000	5.6	4.0	4.8
More than 100,000	2.4	4.8	3.6
<b>Total &gt; 100% due to error in rounding</b>	<b>100.0</b>	<b>100.0</b>	<b>100.1</b>
Number	126	125	251
Non-responses	51	69	120
Chi-square (5 degrees of freedom)=1.9062; p-value=0.862			

Table 8.1 above shows that there are minor differences in the distributions of age, region of residence and income between marginal and infra-marginal consumers. Further, the chi-square statistics associated with each distribution reveal that the differences are not statistically significant at the 5 percent level.

Table 8.2 below shows that there are no statistically significant differences between the two groups regarding the degrees of access to the Internet and the level of formal education of the heads of household. A significant difference between the groups is observed, however, when one examines the occupation of the heads of household. A closer analysis of the data reveals that the significant difference between the groups emanates from six (6) of the various occupational groups listed in the table. The data show that marginal consumers are over-represented in the occupations of (i) Craft and Related Trades Workers; (ii) Plant and Machine Operators and Assemblers; and (iii) Elementary Occupations. Further, marginal consumers are under-represented in the occupations of (iv) Technicians and Associate Professions; (v) Service Workers and Shop and Market Sales Workers; and Skilled Agricultural and Fishery workers.

**Table 8.2 Breakdown of Consumers by Internet Access, Education and Occupation**

	<b>Infra-marginal consumers</b>	<b>Marginal consumers</b>	<b>All</b>
<i>By access to internet</i>			
With access	43.2	43.2	43.2
Without access	56.8	56.8	56.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	176	190	366
Non-responses	1	4	5
Chi-square (1 degree of freedom)=0.0000; p-value=0.996			
<i>By Education of head of household</i>			
No formal	2.9	1.6	2.2
Primary	20.4	26.5	23.5
Secondary	43.0	29.2	35.9
Vocational	11.1	14.6	13.0
College	12.2	15.7	14.0
University	10.5	12.4	11.5
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>	<b>100.0</b>	<b>100.1</b>
Number of respondents	172	185	357
Non-responses	5	9	14
Chi-square (5 degrees of freedom) =8.7776; p-value=0.118			
<i>By Occupation of head of household</i>			
Legislators, Senior Officials and Managers	1.2	0.5	0.8
Professionals	9.2	11.0	10.1
Technicians and Associate Professionals	2.3	0.5	1.4
Clerks	14.4	17.8	16.2
Service Workers and Shop and Market Sales Workers	24.7	17.3	20.8
Skilled Agricultural and Fishery Workers	5.8	2.6	4.1
Craft and Related Trades Workers	0.0	3.1	1.6
Plant and Machine Operators and Assemblers	1.7	6.3	4.1
Elementary Occupations	1.7	6.3	4.1
Unclassified	39.1	34.6	36.7
<b>Total ≠ 100% due to error in rounding</b>	<b>100.1</b>	<b>100.0</b>	<b>99.9</b>
Number of respondents	174	191	365
Non-responses	3	3	6
Chi-square (9 degrees of freedom)=23.2529; p-value=0.006			

## 8.2 The Policy Shock

The National Health Fund (NHF), the Government's health insurance body, subsidizes a select set of 222 drugs used to treat fifteen chronic ailments. Table 8.3 below shows the



ailments which are covered and the number of drugs available through the NHF to treat each ailment.

**Table 8.3 Number of Drugs Covered through NHF, by Chronic Ailment**

<b>Chronic Ailments Covered</b>	<b>Number of Drugs carried for each ailment</b>
Arthritis	14
Asthma	13
Breast Cancer	8
Benign Prostatic Hyperplasia	4
Prostate Cancer	8
Diabetes	24
Major Depression	10
Epilepsy	7
High Cholesterol	7
Psychosis	12
Glaucoma	11
Hypertension	45
Ischaemic heart disease	45
Rheumatic Fever/ Heart disease	8
Vascular Heart disease	6
<b>Total</b>	<b>222</b>

Source: NHF website: <http://www.nhf.org.jm/nhf.dti?page=benefits>. Last accessed March 2007.

The HCL appears to have a disproportionately greater impact at the distribution level, relative to the retail level, based on responses to question q8a of the distributor questionnaire and to question q26a of the retailer questionnaire. The responses to these questions are summarised in Table D-29 and Table C-76 in APPENDIX D and APPENDIX C, respectively. A comparison of these tables reveals that while all thirteen distributors who responded to the question indicate that the Government enterprise has an impact on their business, only eighteen retailers (51.4 percent) responded in a similar manner to the question.

Through these business enterprises, the Government has forged vertical and horizontal relationships with both distributors and retailers. For instance, Table D-30 reveals that the Government enterprises are “customers” of ten distributors (vertical relationship) whereas two distributors indicated that they consider the HCL to be a rival since it diverts

customers away from them (horizontal relationship). Similarly, Table C-77 reveals that the HCL supplies three retailers (vertical relationship) and eight retailers indicated that Drug Serv pharmacies (operated by the HCL) are diverting business away from them (horizontal relationship). Interestingly enough, seven retailers credit the HCL with generating additional business through the Government's health insurance programs, the NHF and JADEP.

### 8.3 National Health Fund (NHF) Program

In this section, we assess the Government's intervention in the pharmaceutical industry as it relates to the purchase and sale of drugs (through HCL) and the subsidization of drugs through programs such as NHF and JADEP.

Responses to questions q18 through q29 of the consumer questionnaire allow us to assess the effectiveness of the NHF and JADEP programs. The first indictment against the effectiveness of the programs is observed in responses to question q18 which asks respondents if they are "...aware of Government efforts encouraging the use of generic medication". The responses are presented in Table 8.4 below.

**Table 8.4 Consumer Awareness of Govt Effort Regarding Use of Generic Rx**

	<b>Infra-marginal</b>	<b>Marginal</b>	<b>All</b>
Yes	57.5	38.6	47.7
No	42.5	61.4	52.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	174	189	363
Number of non-responses	3	5	8
Chi-square (1 degree of freedom)=12.9003; p-value=0.000			

Table 8.4 shows that after more than a decade since the Government revised legislation to encourage greater substitution of generic medication, less than half of the respondents indicated that they are aware of the Government's efforts promoting generic substitution. Further, the chi-square statistic reveals that there is a statistically significant between the level of awareness within the groups of marginal and infra-marginal consumers. Specifically, the proportion of infra-marginal consumers who are aware of the

Government's effort in encouraging the use of generic medication is greater than the proportion of marginal consumers who are so aware. This is a perverse result because it is the group of marginal consumers who would presumably stand to benefit through greater use of generic medication.

The most direct assessment of the impact/ acceptance of the NHF is gleaned from the responses to questions q19 and q20a. Question q19 asks if they have "... ever heard of the National Health Fund (NHF)." The responses are presented in Table 8.5. The table shows that 76.6 percent of the group of marginal consumers are aware of the Fund. This is significantly below the corresponding proportion in the group of infra-marginal consumers.

**Table 8.5 Consumer Awareness of the NHF**

	<b>Infra-marginal consumers</b>	<b>Marginal consumers</b>	<b>All</b>
Yes	89.4	76.6	82.7
No	10.6	23.4	17.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	170	184	354
Number of non-responses	7	10	17
Chi-square (1 degree of freedom)=10.1210; p-value=0.001			

Question q20a asks if they have "...ever signed up for a NHF card." The responses are presented in the Table 8.6 below.

**Table 8.6 Enrolment in the NHF**

	<b>Infra-marginal consumers</b>	<b>Marginal consumers</b>	<b>All</b>
Yes	28.8	22.8	25.8
No	71.2	77.2	74.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	146	145	291
Number of non-responses	31	49	80
Chi-square (1 degree of freedom) =1.3729; p-value=0.241			

Table 8.6 reveals that only 22.8 percent of marginal consumers have signed up for the card, compared with the 28.8 percent of infra-marginal consumers. The difference in proportions is not statistically significant at the 5 percent level.

The results in Table 8.5 and Table 8.6 imply that only 21.3 percent of the 371 respondents who indicated in question q1a that they have heard of the term ‘generic medication’ actually signed up for the NHF.

### 8.3.1 Evaluation of Consumers who have Never Signed up

Question q20b asks those consumers who have not signed up for the NHF card why they have not done so. The results are presented in Table 8.7 below.

**Table 8.7 Main Reasons Consumers do not enrol in NHF**

	<b>Infra-Marginal consumers</b>	<b>Marginal consumers</b>	<b>All</b>
Not qualified	8.7	6.3	7.4
Already have private insurance	17.5	Not applicable	8.4
Not worth having	1.0	2.7	1.9
Not interested	20.4	18.8	19.5
Uninformed about card/procedure	17.5	15.2	16.3
Thought it was for the elderly only	4.9	0.0	2.3
In the process of applying	3.9	4.5	4.2
Do not have the time	8.7	11.6	10.2
No reason	8.7	25.9	17.7
Do not have ailments covered	1.9	8.9	5.6
Other	6.8	6.3	6.5
<b>Total</b>	<b>100.0</b>	<b>93.9</b>	<b>100.0</b>
Number of respondents	103	112	215
Number of non-responses	74	82	156

A total of 215 persons responded to this question. The table shows that 25.9 percent did not sign up for the card because of inaccurate/incomplete information about the NHF scheme. Specifically, 16.3 percent indicated that they are unsure of the procedure for applying for the NHF card, 7.4 percent expressed the view that they are not qualified for the NHF program whilst another 2.3 percent thought that the program is for the elderly only. It should be noted that there are no eligibility requirements for the NHF program-

other than that the beneficiary must have at least one of the ailments covered by the program.

Another 31.9 percent thinks that the program does not offer them net positive benefits. Specifically, 19.7 percent indicated that they are not interested in having the NHF, 10.3 percent did not have the time to sign up for the program and 1.9 percent stated that the program is not worth having.

Some 17.8 percent of respondents indicated that they have “no reason.” It is unclear, however, whether they meant “no reason for signing up” or “no reason for not signing up.” The latter interpretation tends to put a positive assessment on the NHF program while the former interpretation tends to put a negative assessment. The table also shows that 8.5 percent opted out of signing up for the NHF insurance because they were insured through private companies.<sup>39</sup> Only 5.6 percent of consumers did not sign up for the NHF program because they did not have any of the ailments covered by the Fund.

In summary, only 5.6 percent of those who have never signed up for the NHF are ineligible to receive the benefits. Some 25.9 percent cite inaccurate or incomplete information about eligibility for enrolment in the program as reasons for not signing up with NHF; another 17.8 percent are unable to offer any reason for not signing up.

### 8.3.2 Evaluation of consumers who signed up for the program

We now examine the responses of consumers who signed up for the program. We use the responses to question q21a to establish the extent to which enrolees utilise the NHF card. Question q21a asks enrolees whether they “...used the NHF card on the last prescription filled.” The results are summarised in Table 8.8 below:

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<sup>39</sup> It is unclear whether these respondents thought their private insurance makes them ineligible for the NHF program, which it does not, or because they were satisfied with their benefits from the private insurance and so had no need for the NHF.

**Table 8.8 Use of NHF among Cardholders**

	<b>Infra-Marginal consumers</b>	<b>Marginal consumers</b>	<b>All</b>
Yes	57.5	53.3	55.7
No	42.5	46.7	44.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	40	30	70
Number of non-responses	2	3	5
Chi-square(1 degree of freedom)=0.1206; p=0.728			

A total of 70 persons responded to this question. Table 8.8 shows that only 55.7 percent of the respondents used the NHF card for the last prescription filled. The chi-square statistic demonstrates that the usage of NHF is not related to the group in which the consumer finds himself. The NHF card appears to be less than fully utilised among card holders.

Question q21b explores the possible reasons for the underutilisation of the NHF program among cardholders. Specifically it asks respondents the main reason "...for not using the card [on the last prescription filled]." The responses are summarised in Table 8.9 below.

**Table 8.9 Main Reasons for Non-usage of NHF**

	<b>Infra-marginal consumers</b>	<b>Marginal consumers</b>	<b>All</b>
Private insurance provide better benefits	31.3	Not applicable	16.7
Have not received card as yet	6.3	7.1	6.7
Drugs not covered by NHF	12.5	7.1	10.0
Did not have card at hand	12.5	35.7	23.3
Other <sup>1</sup>	37.5	50.7	43.3
<b>Total</b>	<b>100.1</b>	<b>100.6</b>	<b>100.0</b>
Number of respondents	16	14	30
Number of non-responses	1	0	1

Notes:

1. None of the responses in the "other" category accounted for more than 3.5 percent of the total.

Table 8.9 above shows that 16.7 percent of cardholders did not use their NHF card because they believed that the benefits of health insurance programs offered by private

sector are superior to the benefits offered the NHF. Another 10.0 percent indicated that the drugs they wanted to obtain are not covered by the NHF program.

#### 8.4 Evaluation of the Jamaica Drugs for the Elderly Program (JADEP)

We analyse the Jamaica Drug for the Elderly Program (JADEP) in a manner similar to the way in which we analyse the NHF program. First we examine the level of awareness of the program through question q22 which asks respondents if they “...know of the Jamaica Drugs for the Elderly Programme (JADEP).” The responses are presented in Table 8.10 and Table 8.11 below.

**Table 8.10 Infra-Marginal Consumers’ Awareness of JADEP, by Age**

	<b>&lt; 60 yrs</b>	<b>60 yrs or older</b>	<b>All</b>
Yes	67.4	92.3	71.2
No	32.6	7.7	28.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	144	26	170
Number of non-responses	7	0	7
Chi-square (1 degree of freedom) =6.6808; p-value=0.010			

Table 8.10 above shows that 71.2 percent of the infra-marginal are aware of JADEP. It should also be noted that the proportion of elderly (60 years or older) respondents who are aware of JADEP is significantly higher than the corresponding proportion in the younger age group. This is expected, since only elderly consumers are eligible to receive benefits under the JADEP program and so in a sense would be the group targeted by promotional efforts.

Table 8.11 shows that 61.5 percent of marginal consumers are aware of JADEP. The level of awareness of JADEP does not appear to be related to whether the consumers are elderly.

**Table 8.11 Marginal Consumers' Awareness of JADEP, by Age**

	< 60 yrs	60 yrs or older	All
Yes	59.7	69.7	61.5
No	40.3	30.3	38.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	154	33	187
Non-responses	6	0	6
Chi-square (1 degree of freedom)=1.1378; p-value=0.286			

We now summarise responses to question q23a which asks respondents who are eligible for the program if they had "...ever signed up for JADEP."<sup>40</sup> The responses are summarised in Table 8.12 below.

**Table 8.12 Enrolment in JADEP among Eligible Consumers**

JADEP membership	Infra-marginal consumers	Marginal consumers	All
Yes	54.2	66.7	60.4
No	45.8	33.3	39.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	24	24	48
Number of non-responses	2	9	11
Chi-square (1 degree of freedom) =0.7840; p-value=0.376			

Table 8.12 above shows that 60.4 percent of eligible respondents are enrolled in JADEP. This is more than twice the corresponding proportion of eligible respondents who had signed up for the NHF (*see* Table 8.6).

#### 8.4.1 Evaluation of consumers who have never signed up for JADEP

Examining the reasons why consumers do not sign up for the program could provide a useful assessment of JADEP. This is done in question q23b which asks elderly consumers who are not enrolled in JADEP for their "...main reasons for not signing up for the card." The results are summarised in Table 8.13 below.

<sup>40</sup> Individuals must be at least 60 years old to be eligible for JADEP.



**Table 8.13 Main Reasons for non-enrolment in JADEP**

	<b>Infra-marginal consumers</b>	<b>Marginal consumers</b>	<b>All</b>
Not needed/ have private insurance	4	3	7
Not interested	2	0	2
In the process of applying	2	1	3
Do not know what to do to sign up	2	2	4
No reason	0	1	1
Other	1	1	2
<b>Total</b>	<b>11</b>	<b>8</b>	<b>19</b>
Number of non-responses	15	25	40

Table 8.13 above shows that four of the respondents did not sign up for JADEP because of incomplete information about the program. The table also shows that seven of the respondents did not sign up because either they felt they have no need for it nor had private insurance.

The issue of intensity of utilisation of the program is covered by question q24a. Specifically, question q24a asks respondents if they “...used the JADEP card the last time they filled a prescription.” The results are presented in Table 8.14 below.

**Table 8.14 JADEP Usage among Cardholders**

	<b>Infra-marginal consumers</b>	<b>Marginal consumers</b>	<b>All</b>
Yes	9	7	16
No	5	9	14
<b>Number of respondents</b>	<b>14</b>	<b>16</b>	<b>30</b>
Number of Non-responses	12	17	29
Chi-square (1 degree of freedom)=1.6296; p-value=0.202			

Table 8.14 above shows that only sixteen (54.6 percent) consumers enrolled in the JADEP program used the card the last time they filled a prescription, which is similar to the 55.7 percent of NHF cardholders who used their card the last time they filled a prescription.

#### 8.4.2 Evaluation of consumers who have signed up for JADEP

We can also gain an insight into success of JADEP through the views of enrolees who do not utilise the program. Specifically, question q24b asks JADEP card holders for "...their main reason for not using the JADEP card" on the last occasion that they filled a prescription. The responses are summarised below in Table 8.15.

**Table 8.15 Main Reason for Non-usage of JADEP**

	<b>Infra-marginal consumers</b>	<b>Marginal consumers</b>	<b>All</b>
Card not accepted at pharmacy	1	1	2
Drugs not covered by card	1	2	3
Card not received/issued card as yet	0	4	4
Other <sup>1</sup>	3	2	5
<b>Total</b>	<b>5</b>	<b>9</b>	<b>14</b>
Number of non-responses = 2			

Notes:

1. None of the responses in the "other" category accounted for more than 6.7 percent of the total.

The Government should seek to understand why some pharmacies do not accept the card. A total of fourteen persons responded to question q24b. The most alarming reason cited for not using the JADEP card is the lack of acceptance of the card by pharmacies. Table

8.15 shows that the JADEP card was not accepted by pharmacies visited by two respondents. There is evidence that there is also a need for expanding the number of drugs covered by the program and improving the speed at which cards are dispatched to beneficiaries.

## 8.5 Assessment

The Government of Jamaica has spent a lot of resources on the NHF and JADEP programs to provide consumers with prescription medication. Economists generally advise against Government involvement in commercial enterprises. The main reason for such advice is that there is a real risk that such involvement would unnecessarily duplicate resources and tend only to displace or “crowd-out” private commercial enterprises without providing significant incremental benefits to society. One exception to this general rule, however, is where externalities are present in the market. Externalities result in an inefficient allocation of public resources and occur whenever there is a divergence between the private and social incentives and/or costs of engaging in any given market activity. Externalities are clearly present in the pharmaceutical industry as the public costs of an ill person include explicit private costs and implicit costs such as foregone marginal productivity while the person is away from work. The public costs are greater, therefore, for those (marginal) consumers who are unable to acquire medication than for (infra-marginal) consumers who are able to acquire medication. This defines the basis upon which the Government programs are to be assessed. To minimise the crowding out of private enterprises, a welfare-enhancing Government program should be utilised mainly by marginal consumers and not be utilised by infra-marginal consumers.

This section offers a consumer-centric evaluation of the programs, based on responses to questions on the consumer questionnaire. For ease of exposition we define the following terms: *target rate*, *enrolment rate*, *acceptance rate*, *use-awareness gap* and *intensity of utilisation*. The *target rate* is defined as the proportion of the target population who are aware of the program; the *enrolment rate* is defined as the proportion of target population who are registered in the program; the *acceptance rate* is defined as the proportion of the target population who are registered in the program; the *use-awareness gap* is defined as

one minus the ratio of the number of consumers who are registered for the program, to the number of targeted consumers who are aware of the program; and the *utilisation rate* is defined as the proportion of registered individuals who used the card on the last occasion that they filled a prescription. A welfare-enhancing program should be intensely utilised with a low use-awareness gap but high target, enrolment and acceptance rates.

These measures of effectiveness were calculated for the NHF and JADEP and are summarised in Table 8.16 below.

**Table 8.16 Impact of Government Programs among All Consumers**

Measures of effectiveness	NHF	95% Confidence Interval	JADEP	95% Confidence Interval
<i>Target rate (%)</i>	82.7	[78.8 , 86.6]	65.6	[60.7 , 70.4]
<i>Enrolment rate (%)</i>	26.1	[21.1 , 31.1]	49.3	[37.7 , 60.9]
<i>Acceptance rate (%)</i>	27.0	[21.9 , 32.2]	51.5	[39.5 , 63.6]
<i>Intensity of Utilisation (%)</i>	58.0	[46.3 , 69.6]	54.3	[37.8 , 70.8]
<i>Use-awareness gap (%)</i>	73.9	[68.9 , 78.9]	50.7	[39.1 , 62.3]

Notes:

1. The Jamaica Information Service (JIS) [2006] validates the target rate presented in the table. Specifically it credits then Minister of Information with informing persons attending a post-Cabinet briefing on February 6, 2006, that the NHF was treating about 24 percent of persons suffering from chronic ailments. This ratio corresponds to our definition of *enrolment rate*, which we are 95% confident, lies between 21.1% and 31.1% in the population. JIS quotes the Minister as further stating that "...it has established that over 92 per cent of the population are aware of the fund, but there is a gap between awareness of the Health Fund and actual use of the Fund..." This might be an ambitious estimate of the population's awareness of the Fund as the proportion mentioned in the quote corresponds to our definition of *target rate* which we are 95% confident lies between 78.8% and 86.6% in the population. Further the 'gap between awareness... and actual use of the Fund' corresponds to our *use-awareness gap* which we are 95% confident, lies between 68.9% and 78.9% in the population.

The target rate reflects largely the effectiveness of promotional efforts to alert consumers of the existence of the program. The NHF and JADEP have enrolment rates of 82.7 percent and 65.6 percent respectively.

The government has been relatively more successful in convincing elderly consumers of the potential benefits of registering for the JADEP program than it has been at convincing the general population of the potential benefits of registering for the NHF.

The enrolment rate reflects the effective reach of the program. The NHF has an enrolment rate of 26.1 percent whilst JADEP has an enrolment rate of 49.3 percent. The acceptance rate reflects the effectiveness of selling consumers on the potential net benefits of the program since consumers would register for the program only if they expect to receive positive net benefits. The survey shows that the acceptance rate of 51.5 percent for JADEP is more than twice as high as the 27.0 percent acceptance rate for the NHF.

The use-awareness gap measures the proportion of eligible persons who are aware of the program but do not use it. The gap is 73.9 percent for NHF and 50.7 percent for JADEP. This means that 73.9 percent of persons who are eligible for and aware of the NHF do not use the program, compared to the corresponding 50.7 percent for JADEP.

The intensity of utilisation measures the extent to which consumers realise actual net benefits from the program. Low levels of intensity suggest that relatively few consumers think that the benefits they receive from the program are greater than those provided by alternative programs such as private insurance or those provided with no insurance. The intensities of utilisation for NHF and JADEP are 58.0 percent and 54.3 percent respectively. Less than three-fifths of cardholders in the NHF and JADEP programs believe that the benefits from using these programs exceed the benefits from alternative means of acquiring prescription medication.

The discussions have outlined the impact of the JADEP and NHF programs on consumers. To assess the impact on competition in the pharmaceutical industry, we describe the impact of the programs on marginal consumers. Ideally, a welfare-enhancing publicly funded program should not crowd out (compete with) private enterprises; rather, the public program should be designed to serve only consumers who would be unlikely to acquire medication through private means.

The impact of the programs on marginal consumers is summarised in Table 8.17 below.

**Table 8.17 Impact of JADEP and NHF on ‘Marginal’ Consumers**

Measures of effectiveness	NHF	95% Confidence Interval	JADEP	95% Confidence Interval
<i>Target rate (%)</i>	76.6	[70.5 , 82.7]	61.2	[54.2, 68.1]
<i>Enrolment rate (%)</i>	22.8	[15.9 , 29.6]	52.9	[36.2 , 69.7]
<i>Acceptance rate (%)</i>	24.1	[16.9 , 31.3]	58.1	[40.7 , 75.4]
<i>Intensity of Utilisation (%)</i>	57.1	[38.8 , 75.5]	44.4	[21.5, 67.4]
<i>Use-awareness gap (%)</i>	77.2	[70.4 , 84.1]	47.1	[30.3, 63.8]

The table shows that 76.6 percent of marginal consumers are aware of Fund whilst 61.2 percent of eligible (elderly) marginal consumers are aware of JADEP. This implies that the GOJ has achieved moderate success in informing marginal consumers of the programs. The enrolment and acceptance rates for both programs are less impressive. The table shows that only 22.8 percent of marginal consumers are enrolled in the Fund and only 52.9 percent of elderly marginal consumers are enrolled in JADEP. The acceptance rate indicates that 58.1 percent of elderly consumers who are aware of JADEP are enrolled in the program. It is also observed that with 95% confidence, the true population proportion ranges between 40.7 percent and 75.4 percent. Similarly, 24.1 percent of the marginal consumers who are aware of the Fund opted to enrol in it. We are 95% confident that the corresponding proportion in the population lies between 16.9 percent and 31.3 percent.

The relatively moderate intensities of utilisation are also of concern. The table shows that only 44.4 percent of elderly marginal persons in the sample used the JADEP card on the last occasion that they filled a prescription. It is also noted that with a probability 0.95, the corresponding proportion in the wider population could be as low as 21.5 percent and as high as 67.4 percent. The intensity of utilisation is slightly better for the Fund as the table shows that 57.1 percent of marginal consumers in the sample used the Fund on the last occasion that they filled a prescription. We are 95% confident that the proportion of marginal consumers in the population who utilised the Fund ranges from 38.8 percent to 75.5 percent.

To measure the proportion of the target population that used the respective program on the last occasion that they filled a prescription we need only determine the product of the

utilisation and enrolment rates. Calculations show that only 23.5 percent of elderly marginal consumers in the sample used the JADEP card to fill their prescription and only 13.0 percent of marginal consumers in the sample used the Fund on the last occasion that they filled a prescription. Further, we are 95% confident that the proportion of marginal consumers in the wider population who used the Fund on the last occasion that they filled a prescription ranges between 7.5 percent and 18.5 percent and similarly confident that the proportion of elderly marginal consumers in the wider population who use JADEP lies between 9.2 percent and 37.8 percent. In summary, the JADEP and NHF do not seem to be servicing a substantial number of the consumers who are in greatest need of its benefits.

We now report on the impact of the programs on infra-marginal consumers. The indicators of impact are presented in Table 8.18 below.

**Table 8.18 Impact of JADEP and NHF on ‘Infra-Marginal’ Consumers**

Measures of effectiveness	NHF	95% Confidence Interval		JADEP	95% Confidence Interval
<i>Target rate (%)</i>	89.3	[84.6 , 94.0]		72.0	[65.2 , 78.8]
<i>Enrolment rate (%)</i>	29.2	[21.7 , 36.6]		45.5	[28.5 , 62.4]
<i>Acceptance rate (%)</i>	29.6	[22.1 , 37.1]		45.5	[28.5 , 62.4]
<i>Intensity of Utilisation (%)</i>	59.0	[43.5 , 74.4]		66.7	[42.8 , 90.5]
<i>Use-awareness gap (%)</i>	70.8	[63.4 , 78.3]		54.6	[37.6 , 71.5]

Table 8.18 above shows that 89.3 percent of the infra-marginal consumers are aware of the Fund and 72.0 percent of elderly infra-marginal consumers are aware of JADEP. A cursory comparison of Table 8.17 and Table 8.18 reveals that JADEP and NHF are not having a greater impact on marginal consumers than they are having on marginal consumers. In fact, using the ratios presented in Table 8.18 it can be shown that 17.2 percent of infra-marginal consumers actually use the Fund, compared to the corresponding 13.0 percent of marginal consumers. Further, 30.3 percent of infra-marginal consumers use JADEP compared to the 23.5 percent of marginal consumers who use JADEP.

In section 5.1, we establish that only price, reputation and substitutability between generic and innovator medication appear to have a significant statistical relationship with consumer preference for prescription medication.<sup>41</sup> It is known that drugs available through the NHF and JADEP programs are sold at highly subsidized prices. This means that if consumers shun these programs, it must be because the drugs available through them have either a “bad” reputation or are generally not thought to be readily substitutable for innovator medication. This suggests that if the Government desires to improve acceptance of the programs, the reputation and substitutability of the drugs offered under the programs need to be reviewed.

If the drugs on the program have a bad reputation, and this reputation is based on inaccurate information, then the information structure of the industry must be exploited to (i) determine the information that consumers have about the programs and (ii) disseminate the information necessary to discredit the inaccurate information. If the “bad” reputation is based on legitimate reasons, then these reasons must be canvassed and addressed by policy makers. Similarly, if the reluctance of consumers is based on poor substitutability of drugs covered by the programs, then steps must be taken to ensure that the drugs on the programs have “minimum quality” standards which are acceptable to consumers.

## 8.6 Summary

Five separate but related performance ratios were defined, calculated and interpreted for NHF and JADEP, to assess the effectiveness of the Government’s latest foray into the pharmaceutical industry. The results indicate that reasonable success was achieved by the Government in promoting awareness, as approximately eight out of every ten eligible respondents are aware of each program.

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<sup>41</sup> In section 5.1 we established that there are significant statistical associations between consumer preferences and (i) reputation, (ii) price and (iii) substitutability. No causal relationship between the three variables and consumer preference were established, however.



On a positive note, individuals who are most in need of assistance (marginal consumers) are being served by the NHF and JADEP. There is a danger, however, that the benefits from serving the neediest Jamaicans (marginal consumers) could be offset by the loss in the revenue of private business as some of their customers (infra-marginal consumers) are diverted to the Government's programs.

The ratios point to a low usage of NHF and JADEP among eligible consumers. Since everyone needs therapeutic relief at some point in time, a low usage of the programs suggests that consumers are accessing alternative means of acquiring relief. Further, these alternative means must offer consumers greater net benefits than NHF and JADEP do. The GOJ must review the NHF and JADEP programs if it is to engender greater acceptance and usage among marginal consumers. The analyses above suggest two areas which are ripe for scrutiny: (i) the level of acceptance of JADEP cards at pharmacies and (ii) the set of drugs covered by the NHF and JADEP programs.

## 9. CONCLUSION AND RECOMMENDATIONS

The study is an exploratory research endeavour into competition issues of the pharmaceutical sector in Jamaica and follows two discrete lines of enquiry: Impediments to competition based on anticompetitive practices by players in the sector (the exercise of active market power) and impediments based on inaction of players (the exercise of passive market power). We find that the impediments to greater levels of competition in the sector are more likely the result of passive rather than active market power. This is to say that addressing the high degree of information asymmetries in the pharmaceutical sector would prove to be a more fruitful attempt at resolving inefficiencies in the sector.

The primary concern of policy-makers at this time should be the lack of confidence that non-negligible proportion of major stakeholders have in the efficacy of generic drugs distributed in Jamaica. The evidence presented in the study can not refute the claim that the lack of confidence in generic drugs is due partly to (i) incomplete or inaccurate information and (ii) therapeutic inequivalence of some generic drugs.

In order to rehabilitate the information structure of the sector to ensure the free flow of accurate information, policy makers must access the mechanisms for information dissemination and acquisition to and from the major stakeholders.

The consumers evince a lack of knowledge in key areas: some 39.1 percent of consumers indicate that they have never heard of the term ‘generic medication’; as many as 12.7 percent of consumers believe that generic medication is more expensive than branded medication; only 52.0 percent of consumers follow the physician’s instruction for taking medication ‘all the time’; and 40.4 percent of consumers could not state any place they could go to get redress for any problems they might encounter in the pharmaceutical sector. The study provides evidence which strongly suggests that physicians are the most effective means of disseminating information to final consumers of pharmaceutical products in Jamaica in terms of both the amount of information they provide and the degree to which the information which they provide is deemed to be credible. The influence of physicians on a consumer’s decision making process is further highlighted

by the fact that more than half of the consumers indicate a willingness to switch the type of medication that they consume, at the suggestion of their most credible source of medical advice.

There is also evidence that the information flow to and from health care professionals (i.e., physicians and pharmacists) should be reviewed. Specifically, drug manufacturers appear to be an important source of information for health care professionals and the MoH. The study shows that seminars held by drug manufacturers are the preferred source of information for 66.9 percent of physicians (compared to the 0.8 percent who indicate that they prefer seminars by GOJ officials). Similarly, drug manufacturers and their representatives are the top source of information for 52.8 percent of pharmacists and drug representatives are second only to medical journals as the source deemed by pharmacists to be most credible. To the extent that these drug manufacturers tend to be producers of innovator medication, the existing structure of information flow to the professionals would bias opinion in favour of innovator drugs. Policy-makers should, therefore, supplement the information flow to health care professionals to elicit a more balanced attitude towards innovator and generic medication. In fact 71.4 percent of physicians express an interest in attending a Government-sponsored seminar on generic medication and 71.9 percent express an interest in attending a seminar on innovator drugs. Policy makers should be aware that attendance at the seminars will be influenced by the persons participating in these seminars as approximately 56.6 percent of physicians are interested in hearing from speakers from the community of researchers with specialised knowledge in the field of pharmacology; 38.5 percent are interested in hearing from drug manufacturers or their representatives; and 25.2 percent are interested in hearing from other physicians. Only 0.7 percent express an interest in hearing from MoH officials.

Further, the FTC was informed that most of the reports to the MoH on incidents of adverse drug effects are made by the manufacturers of the drugs in question. Without casting aspersion on the ethics or character of drug manufacturers, it is undeniable that the information used by the MoH to monitor drugs being distributed in Jamaica would be

more complete if reports of adverse drug effects were received also from sources which are independent of the manufacturers.

### Recommendations

Based on the above, it is evident that policy makers need to reduce the degree of information asymmetries to mitigate the inefficiencies in the pharmaceutical sector.

The FTC submits the following proposals as a means of addressing the information asymmetries.

1. Policy-makers should establish or rehabilitate mechanisms for disseminating information to consumers. The study indicates that physicians should be a crucial part of this mechanism and information should be disseminated on, among other things: generic medication and the importance of following the physician's instruction; and basic rights and obligations of consumers in a market economy. The main purpose of this proposal is to equip consumers with the relevant information required for performing their role in promoting greater levels of competition in the sector.
2. The FTC should develop and promote guidelines outlining best practices for Trade Associations as they relate to the sharing of information among members through those Associations. The main purpose of this proposal is to reduce the likelihood that Trade Associations might be used to facilitate anticompetitive practices.
3. Policy-makers should establish or rehabilitate mechanisms designed to disseminate information to, and acquire information from healthcare professionals. The study reveals that physicians are interested in attending seminars with speakers drawn from the community of researchers with specialised knowledge of pharmacology. The main purpose of this proposal is that this two-way flow of information should provide health care professionals with a more balanced (less asymmetric) view of innovator and generic medication and allow policy makers to implement policies based on more complete information. Given the influence of health care professionals on the

decisions of final consumers, a balanced view by these professionals will ultimately lead to a more balanced view by consumers.

4. The MoH should establish a drug certification program aimed at compiling a list of drugs which meet minimum standards along pre-specified dimensions. The study suggests that affordability and effectiveness of prescription medication should be among the criteria for certification as they are the most important factors influencing the types of medication prescribed by physicians and dispensed by pharmacists. Incorporating these criteria will improve the likelihood that healthcare professionals will endorse the program, which will ultimately improve the chances of the program being effective. The main purpose of the certification program is to establish a relatively cheap means for physicians, pharmacists and consumers to assess the suitability of a particular drug.

This certification program could draw on extant sources of information and programs. For instance, since most drugs distributed in Jamaica are imported, the information used to certify or de-certify drugs could be obtained from international sources; but the list should be updated using information from local sources in order to control for country-specific influences on drugs distributed in Jamaica. For instance, the Ministry of Health, in collaboration with the University of the West Indies (UWI) currently operates *PharmWatch*, a drug monitoring program which encourages reporting of drug failure and/or adverse reactions to drugs from health care professionals and patients who have experienced adverse drug reactions. Once healthcare professionals utilise this reporting mechanism, the information could be used to update the list of certified drugs.

The following proposals are advanced by wholesalers (distributors):

5. Policy-makers should take steps to reduce the lengthy registration process at the MoH. This could be achieved by hiring additional staff and/or implementing automated registration systems.

6. Policy-makers should harmonise duty laws and publicise classification of intravenous fluids to ensure that duty is levied uniformly across importers of intravenous fluids.

The following proposals are advanced by retailers (pharmacies):

7. Policy-makers should review policy on the treatment of drugs classified as over the counter (OTC). Specifically, some OTC may be displayed while others may not.
8. Policy-makers should review the classification of drugs distributed in Jamaica. Retailers are of the view that some drugs which are listed as being prescription can be reclassified to OTC.
9. Policy-makers need to administer the JADEP and NHF programs more efficiently. Retailers require speedier reimbursement on sales of drugs sold through these programs.
10. Policy-makers need to improve their monitoring of drugs being distributed in Jamaica as generic drugs are being distributed while the counterpart innovator drugs is still on-patent.
11. The MoH needs to provide more information generally.

## REFERENCES

- Caves, Richard E., Michael Whinston and Mark Hurwitz (1991), "Patent Expiration, Entry and Competition in the U.S. Pharmaceutical Industry," *Brookings Papers on Economic Activity: Microeconomics*, 1-66.
- Clarke, Julian L., Simon J. Evenette and Krista Lucenti (2005), "Anticompetitive Practices and Liberalising Markets in Latin America and the Caribbean," *The World Economy*, Vol. 28 (7), p. 1029.
- Ellison, Sarah (1998), "What Prices Can Tell Us about the Market for Anti-biotics," Mimeo, Massachusetts Institute of Technology.
- FTC (2004), The Fair Competition Act: A Guide to Anticompetitive Practices, Kingston Jamaica. Available at <http://www.jftc.com/news&publications/Publications/PDF%20DOCUMENTS/FC%20Guide%20to%20Anti-competitive%20Practices.pdf>. Last accessed March 2007.
- Frank, Richard G and David S. Salkever (1992), "Pricing, Patent Loss and the Market for Pharmaceuticals" *Southern Economic Journal*, p. 165-179.
- Frank, Richard G. and David S. Salkever (1997), "Generic Entry and the Pricing of Pharmaceuticals," *Journal of Economics & Management Strategy*, Volume 6 (1), p. 75-90.
- Grabrowski, Henry G., and John M. Vernon (1992), "Brand Loyalty, Entry and Price Competition in Pharmaceuticals after 1984 Drug Act," *Journal of Law and Economics*, Vol. 35 (2), p. 331-350.
- Grabrowski, Henry G., and John M. Vernon (1996), "Longer Patents for Increased Generic Competition: The Waxman-Hatch Act after One Decade," *PharmacoEconomics*, Vol. 10, 110-123.
- Gossell-Williams, Maxine (2005), "A 2005 Survey of the Acceptance and Perceptions of Physicians in Jamaica," Mimeo, University of the West Indies.
- Harriott, Kevin K. (2005), "Advertising and Consumer Search in Differentiated Markets," *PhD Dissertation*, Texas A&M University.
- Hart, Oliver D. (1985), "Monopolistic Competition in the Spirit of Chamberlin: A General Model," *Review of Economic Studies*, Vol. 52 (4), p. 529-546.

- Industry Canada (2004), "International Market Research Reports: Drugs and Pharmaceuticals," <http://strategis.ic.gc.ca/epic/site/imr-ri.nsf/en/gr121181e.html>. Last accessed March 2007.
- Ivaldi, Marc, Bruno Jullien, Patrick Rey, Paul Seabright and Jean Tirole (2003), "The Economics of Tacit Collusion," *Final Report for DG Competition, European Commission*,  
[http://ec.europa.eu/comm/competition/mergers/studies\\_reports/the\\_economics\\_of\\_tacit\\_collusion\\_en.pdf](http://ec.europa.eu/comm/competition/mergers/studies_reports/the_economics_of_tacit_collusion_en.pdf). Last accessed March 2007.
- JIS (2006), "Jamaicans Urged to Take Advantage of NHF,"  
[http://www.jis.gov.jm/information/html/20060207t090000-0500\\_7985\\_jis\\_jamaicans\\_urged\\_to\\_take\\_advantage\\_of\\_nhf.asp](http://www.jis.gov.jm/information/html/20060207t090000-0500_7985_jis_jamaicans_urged_to_take_advantage_of_nhf.asp). Last accessed March 2007.
- Kaplow, Louis and Carl Shapiro (2007), "Antitrust," *NBER Working Paper Series*, No. 12867.
- Lande, Robert H. and Howard P. Marvel (2000), "The Three Types of Collusion: Fixing Prices, Rivals and Rules," *Wisconsin Law Review*, p. 941.
- PIOJ and STATIN (2002), Survey of Living Conditions.
- RAND Europe (2005), "Departure-Time and Mode Choice: An Analysis of Three Stated Preference Data Sets,"  
<http://www.dft.gov.uk/pgr/economics/rdg/dtc/phase4/phase4statedpreferenceanalysis3064>. Last accessed March 2007.
- Registrar General (2004), Jamaica Gazette Extraordinary: Register of Persons Qualified to Practice Medicine and Surgery, Vol. CXXVII (45E).
- Shapiro, Carl (2005), Exclusionary Conduct: Testimony before the Antitrust Modernisation Committee,  
<http://faculty.haas.berkeley.edu/shapiro/amcexclusion.pdf>. Last Accessed March 2007.
- STATIN (1995), Jamaica Standard Occupational Classification 1991, Printing Unit of STATIN, Kingston.
- Stigler, George (1961), "The Economics of Information," *Journal of Political Economy*, Vol. 69, p. 213-225.



UTECH (2007), Comparative In Vitro Dissolution and Biopharmaceutical Properties of some multi-source antihypertensive drug Products Marketed in Jamaica.

Wiggins, Steven and Robert Manness (2004), "Price Competition in Pharmaceuticals: The Case of Anti-infectives," *Economics Inquiry*, Vol. 42 (2), p. 247-263.

Wolinsky, Asher (1986) "True Monopolistic Competition as a Result of Imperfect Information," *Quarterly Journal of Economics*, Vol 101, 493-512.

## APPENDIX A. RESULTS OF CONSUMER SURVEY

D1. Base: All respondents were eligible to respond to the following question:

“To which of the following age groups do you belong?”

The results are summarised below in Table A-1.

**Table A-1 Age Distribution**

	<b>Survey % of respondents</b>	<b>Census</b>	<b>Difference</b>
18 to 24 years	10.5		
25 to 29	12.4		
30 to 34	10.8		
35 to 44	20.9		
45 to 59	25.4		
60 to 74	15.4		
75 and over	4.6		
<b>Total</b>	<b>100.0</b>		
Number of Respondents = 1,030			
Number of Non-responses = 0			

Q1a. Base: All respondents were eligible to respond to the following question:

“Are you familiar with the term ‘generic medication’?”

The results are summarised below in Table A-2.

**Table A-2 Level of Awareness of the Term ‘Generic Medication’**

<b>Familiarity with the term ‘generic medication’</b>	<b>% of respondents</b>
Never heard of the term	39.0
Familiar with the term but not sure what they are	24.6
Familiar with the term, but never used them	12.2
Familiar with the term and have used them before	20.6
Familiar with the term and currently use them	3.6
<b>Total</b>	<b>100.0</b>
Number of Respondents = 1,020	
Number of Non-responses = 10	

When asked if they were familiar with the term ‘generic medication’, 39.0 percent of the respondents indicate that they have never heard the term. The other 61.0 percent comprise 24.6 percent who were not sure what the term referred to, 12.2 percent who point out that they have never used generics, 20.6 percent who had used generics before whilst the remaining 3.6 percent who indicate that were using generics at the time the survey was conducted.

Q1b. Base: Respondents who indicated in question q1a that they were not sure of what ‘generics’ were or indicated that they had either never heard of the term ‘generic’ were excluded from responding to questions q1b through q29. The eligible respondents were asked the following question:

“What does the term ‘generic medication’ mean to you?”

The responses were then coded into twelve categories and are summarised in the table below.

**Table A-3 Consumers’ Conception of Generics**

<b>Definition of term ‘generic medication’</b>	<b>% of respondents</b>
Cheaper, equally effective	8.8
Equally effective	2.8
Cheaper	48.8
Cheaper, less effective	5.2
Less effective	8.3
Made from natural ingredients	1.7
Made from man made ingredients	0.6
Substitute for branded medication	3.9
Imitation/copy drug; not original	8.8
Alternative to brand	2.5
Can’t explain	2.2
Other	6.6
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.2</b>
Number of Respondents = 363	
Number of non-responses = 8	

When asked to comment on what the term ‘generic medication’ meant to them, 73.9 percent of these 363 respondents defined generics in terms of its price and/or effectiveness relative to established medications with widespread name recognition. Of this amount, 8.8 percent expressed the opinion that generics are cheaper and equally effective whereas 5.2 percent expressed the view that generics are cheaper but less effective than established brands. Approximately 2.8 percent think that generics are equally effective- without any mention of the relative prices, 48.8 percent of the respondents indicate that generics were synonymous with being “cheaper” than established brands without mention of their relative effectiveness. The other 8.3 percent think that generics were drugs which were less effective without expressing a view on the relative prices. A fundamental problem which arises in interpreting responses to this and related questions is that some established (branded) medication is in fact generics.

Q2. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were asked the following question:

“Do you think there is a need to increase the public’s awareness of generic medication?”

The results are summarised below in Table A-4.

**Table A-4 Is There A Need to Increase Public Awareness of Generics?**

<b>Need for greater public awareness of generic medication</b>	<b>% of respondents</b>
Yes	85.8
No	2.2
Maybe	12.0
<b>Total</b>	<b>100.0</b>
Number of respondents	367
Number of non-responses	4

The majority of respondents believe there is need for greater public awareness of generic medication. When asked whether they thought there was a need for greater public awareness of generic medication, 85.8 percent answered in the affirmative, 2.2 percent said did not think so whilst 12.0 percent were less conclusive in their response.

Q3a. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were asked the following question:

“Please rank the following sources of medical advice in order of credibility where 1 is most believable, 2 is second most believable, 3 is third most believable and so on.”

The results are summarised below in Table A-5 through Table A-7.

**Table A-5 Top ranking Sources of Credible Medical Advice**

Source of medical advice	% of respondents ranking source as most believable	Number of respondents	Number of non-responses
Doctor	79.1	364	7
Pharmacist	10.1	347	24
Family/ friends	5.3	304	67
Drug manufacturers/ importers	5.2	230	141
Ministry of Health (MoH)	4.7	276	95
Internet	3.0	167	204
Testimonials (word-of-mouth from strangers who have used the medication)	1.4	214	157

**Table A-6 Sources of Medical Advice Ranking in the Top Two**

Source of medical advice	% of respondents ranking source in top two (i.e., #1 or #2)	Number of respondents	Number of non-responses
Doctor	93.7	364	7
Pharmacist	70.0	347	24
Ministry of Health (MoH)	22.1	276	95
Family/ friends	14.5	304	67
Drug manufacturers/ importers	12.6	230	141
Internet	9.6	167	204
Testimonials (word-of-mouth from strangers who have used the medication)	5.6	214	157

**Table A-7 Sources of Medical Advice Ranking in the Top Three**

Source of medical advice	% of respondents ranking source in top three (i.e., #1, #2 or #3)	Number of respondents	Number of non-responses
Doctor	98.6	364	7
Pharmacist	91.6	347	24
Ministry of Health (MoH)	60.5	276	95
Family/ friends	41.1	304	67
Drug manufacturers/ importers	38.3	230	41
Internet	15.6	167	204
Testimonials (word-of-mouth from strangers who have used the medication)	14.0	214	157

Table A-5 through Table A-7 above indicate the relative rankings of various sources of medical information. Table A-5 indicates the proportion of respondents which rank the various sources as the most credible source of medical advice. Table A-6 indicates the proportion of respondents which ranked the various sources as either the most credible or the second most credible source of medical advice. Similarly, Table A-7 indicates the proportion of respondents which rank the various sources in the top three most credible sources for medical advice. The tables, for the most part present consistent relative rankings of the various sources. Table A-5 shows that 79.1 percent of the 364 respondents who ranked physicians indicated that physicians were the most credible source of medical advice. Whereas only 10.1 percent of the 347 respondents who ranked pharmacists indicated that they are the most credible source, Table A-6 indicates that 70.0 percent of these respondents place pharmacists in the top two rankings and 91.6 percent ranks pharmacists in the top three, as indicated in Table A-7. The tables indicate also that testimonials from strangers and the Internet are considered among the most credible sources of medical advice by very few consumers.

Q3b. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Now consider the top two sources in terms of credibility: \_\_\_\_\_ and \_\_\_\_\_. How would you describe the information you receive from both sources?”

The respondents were instructed to select only one of four options provided.

The results are summarised below in Table A-8.

**Table A-8 Similarity of Information from Top Two Credible Sources**

<b>Information from #1 and #2 ranked sources</b>	<b>% of respondents</b>
Identical/ very similar	40.1
Somewhat similar	53.0
Somewhat different	6.4
Very/completely different	0.6
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.1</b>
Number of respondents = 362	
Number of non-responses = 9	

Of the 362 persons who responded to this question, 93.1 percent point out that the information provided by their top two sources is similar, with 40.1 indicating that the information was either identical or very similar.

Q3c. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Now consider the second and third sources in terms of credibility: \_\_\_\_\_ and \_\_\_\_\_. How would you describe the information you receive from both?”

The respondents were instructed to select only one of four options provided.

The results are summarised below in Table A-9.

**Table A-9 Similarity of Information from Second and Third Ranked Sources**

<b>Information from #2 and #3 ranked sources</b>	<b>% of respondents</b>
Identical/ very similar	13.5
Somewhat similar	59.4
Somewhat different	20.9
Very/completely different	6.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 355	
Number of non-responses = 16	

Of the 355 persons who responded to this question, 27.1 percent points out that dissimilar information is provided by the sources ranked at number two and three; with 6.2 percent indicating that the information is either completely or very different. Only 13.5 percent of the 355 persons indicate that the information provided by the second and third most credible sources of medical advice is very similar.

Q4. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Rank the following sources of information in order of your exposure to information on prescription medication using 1 to indicate the source that provides you with the greatest amount of information.”

The results are summarised below in Table A-10 through Table A-12.

**Table A-10 Top Ranking for exposure to information**

<b>Greatest source of medical information</b>	<b>% of respondents</b>	<b>Number of respondents</b>	<b>Number of non-responses</b>
During visit to Doctor	62.3	318	53
Television	26.6	335	36
Internet	9.4	191	180
Radio	9.1	287	84
Newspaper	5.3	266	165
Flyers/ Brochures/ Magazines	4.0	273	98
Other			



**Table A-11 Top Two Source based on Exposure to Information**

	<b>% of respondents</b>	<b>Number of respondents</b>	<b>Number of non-responses</b>
During visit to Doctor	70.4	318	53
Television	51.6	335	36
Radio	32.4	287	84
Flyers/ Brochures/ Magazines	30.4	273	98
Internet	25.1	191	180
Newspaper	21.1	266	105
Other			

**Table A-12 Top Three Source based on Exposure to Information**

	<b>% of respondents</b>	<b>Number of respondents</b>	<b>Number of non-responses</b>
During visit to Doctor	81.4	318	53
Television	72.2	335	36
Radio	62.4	287	84
Flyers/ Brochures/ Magazines	49.5	273	98
Newspaper	44.4	266	105
Internet	31.9	191	180
Other			

Table A-10 indicates that the percentage of respondents who list the respective sources as providers of the greatest amount of information on prescription medication. Table A-11 indicates the percentage of respondents who list the respective sources as one of the top two providers of medical information. Similarly, Table A-12 indicates the percentage of respondents who lists the respective sources as one of the top three providers of medical information. All three tables indicate that the majority of individuals receive the greatest amount of information during visits to a physician and television provided the next important source of medical information.

Q5a. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Which one of the following best describes your preference regarding generic and branded medication?”

The respondents were instructed to select only one of four options provided.

The results are summarised below in Table A-13.

**Table A-13 Consumer Relative Preferences for Generic and Branded**

<b>Relative preference for generic and branded</b>	<b>% of respondents</b>
I would choose a generic medication once it is available	30.7
I would choose a branded medication, even if a generic medication is available	21.1
The type of medication I choose will depend on various factors.	32.1
I do not have a preference	16.2
<b>Total</b>	<b>100.1</b>
Number of respondents = 365	
Number of non-responses = 6	

Of the 365 persons who responded to this question, 30.7 percent indicated that they would choose generic medication once it is available, whereas 21.1 percent stated they would select branded medication even if generic medication was available. Another 16.2 percent of the respondents indicate that they do not have a preference for either type of medication.

Q5b. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“If the branded and generic medication were available to you at the same price, which would you choose?”

The respondents were instructed to select only one of four options provided.

The results are summarised below in Table A-14.

**Table A-14 Consumer Relative Preferences, Holding Prices Constant**

<b>Relative preference for generic and branded at identical price</b>	<b>% of respondents</b>
I would probably choose a generic medication	15.6
Either medication would do just fine	16.7
I would probably choose the branded medication	60.9
I do not know which I would choose	6.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 366	
Number of non-responses = 5	

Of the 366 persons who responded to this question, 60.9 percent indicated that they would choose branded medication once it is available, whereas 15.6 percent expressed a preference for generics. Approximately 16.7 percent indicated being indifference between the two types of medication.

Q6. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Generally speaking, compared to the price of a branded medication, a generic medication is ...”

The respondents were instructed to select only one of four options provided.

The results are presented below in Table A-15.

**Table A-15 Consumer Perception of Relative Prices of Generics and Branded  $\mathcal{R}$** 

<b>Relative price of generics and branded medication</b>	<b>% of respondents</b>
A lot more expensive	6.9
A little more expensive	5.8
About the same	6.1
A little less expensive	31.2
A lot less expensive	44.2
I do not know	5.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 362	
Number of non-responses = 9	

A total of 362 persons responded to this question. Table A-15 above indicates that 75.4 percent hold the opinion that generics are relatively less expensive than branded medication whilst 12.7 percent think that generics are relatively more expensive.

Q7. Base: Only persons who indicated in question q5a that they would choose branded medication were asked the following question.

“You mentioned that <#1> was your most credible source of information. If this source were to inform you that a generic medication is just as good as its branded counterpart, how likely would you be to switch from a branded medication to the generic medication?”

**Table A-16 Influence of Top Ranked Credible Source on Consumer Behaviour**

	<b>% of respondents</b>
Definitely would switch	29.6
Probably would switch	27.2
Might or might not switch	16.0
Probably would not switch	9.6
Definitely would not switch	17.6
<b>Total</b>	<b>100.0</b>
Number of respondents = 125	
Number of non-responses = 246	

Of the 125 persons who responded to this question, 56.8 percent indicated that there is a strong likelihood that their most credible source for medical advice could convince them to switch to branded medication whilst 27.2 percent think it unlikely for them to be induced by their most credible source to switch to generic medication.

Q8a. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Indicate whether or not you have ever been treated with prescription medication for the following ailments.”

The respondents were instructed to select all that applied. The results are tabulated below in Table A-17.

**Table A-17 Incidence of Selected Chronic Ailments**

<b>Incidence of chronic ailments</b>	<b>% of respondents treated for ailment</b>	<b>Number of respondents</b>	<b>Number of non-responses</b>
Arthritis	17.6	353	18
Asthma	12.5	351	20
Diabetes (Sugar)	15.1	350	21
Hypertension (Pressure)	34.6	353	18
High Cholesterol	10.3	348	23
None of the ailments listed above	54.4	340	31

The table indicates that among the five chronic ailments listed, there is a relatively greater incidence of hypertension which affected 34.6 percent of the persons responding to the question. Arthritis is the next most prevalent ailment with 17.6 percent reported to being treated for it. The lowest incidence rate was reported among the 10.3 percent of individuals who are being treated for high cholesterol.

Q8b. Base: Only respondents who had indicated in q8a that they were being treated for at least one of the listed chronic ailments were asked the following question.

“Which type of medication, generic or branded have you ever used to treat the ailment(s)?”

The results are summarised below in Table A-18.

**Table A-18 Type Of Rx Being Used to Treat Chronic Ailments, by Ailment**

Medication used to treat Individuals with chronic ailments	% of respondents				
	Arthritis	Asthma	Diabetes	Hypertension	High Cholesterol
Generic only	11.5	5.6	15.4	11.9	14.7
Branded only	36.1	30.6	21.2	28.8	32.4
Both generic and branded	31.2	33.3	38.5	40.7	29.4
Do not know	21.3	30.6	25.0	18.6	23.5
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.1</b>	<b>100.1</b>	<b>100.1</b>	<b>100.0</b>	<b>100.0</b>
Number of respondents	61	36	52	118	34
Number of non-responses	1	8	1	4	2

A total of 61 persons indicated that they are being treated for arthritis. Approximately 11.5 percent reported that they use generics exclusively while 36.1 percent indicate that they use branded medication exclusively. Another 31.2 percent indicated that they use both types of medication to treat arthritis while the remaining 21.3 percent do not know which type of medication they are being treated with.

A total of 36 persons indicated that they were treated for asthma. Only 5.6 percent indicated that they used generic medication exclusively to treat asthma whilst 30.6 percent indicated that they exclusively use branded medication. Some 30.6 percent were unaware of which type of medication with which they are being treated.

A total of 52 individuals indicated that they were being treated for diabetes. 25.0 percent were unaware of which type of medication they were being treated with. Approximately 21.2 percent indicated that they were being treated with branded medication only.

Approximately 40.7 percent of the 118 persons who were being treated for hypertension indicated that they use both branded and generic medication. Some 28.9 percent indicated they had never used generic medication to treat hypertension while 12.4 percent report that they have never used branded medication. It is also noted that 18.2 percent do not know which type of medication is being used to treat them for hypertension.

A total of 34 persons reported to being treated for high cholesterol. Of this amount, 23.5 percent do not know whether they are being treated with branded or generic medication with 29.4 percent report that they have used both types of medication to treat high cholesterol. They are approximately who have been treated with only one type of medication; some 32.4 percent use branded medication exclusively for treatment of high cholesterol compared to the 14.7 percent who indicated that they use of generic medication exclusively.

Q8c. Base: Only respondents who indicated on question q8b that they had used both generic and branded medication to treat an ailment were asked the following question.

“For those ailments for which you have been treated with both branded and generic medication , when comparing generic medication to branded medication, in terms of their ability to work would you say the generic medication is....?”

The results are summarised in Table A-19 below.

**Table A-19 Consumer Perceptions of Relative effectiveness of generic R**

Relative effectiveness of generic and branded medication	% of respondents				
	Arthritis	Asthma	Diabetes	Hypertension	High Cholesterol
Generic are a lot more effective	5.9	8.3	5.3	4.4	11.1
Generic are a little more effective	11.8	0.0	5.3	0.0	0.0
Generics are just as effective	52.9	66.7	57.9	62.2	66.7
Generics are a little less effective	17.7	8.3	21.1	22.2	22.2
Generics are a lot less effective	5.9	16.7	0.0	2.2	0.0
Do not know/ Can't really tell	5.9	0.0	10.5	8.9	0.0
<b>Total</b>	<b>100.1</b>	<b>100.0</b>	<b>100.1</b>	<b>99.9</b>	<b>100.0</b>
Number of respondents	17	12	19	45	9
Number of non-responses	2	0	1	3	1

The table above summarises the opinion of individuals who indicated they were treated with both types of medication for at least one of the listed chronic ailments. Approximately 57.9 percent of the 20 individuals who were being treated for diabetes indicated that generics are as effective as branded medication; compared to 52.9 percent

of the 19 persons being treated for asthma who hold a similar opinion for asthma medication. It should also be noted that a non-negligible portion of respondents believe that generics are more effective than branded medication in treating the listed chronic ailments. This proportion of respondents who held this opinion ranged from a low of 11.1 percent among person being treated for hypertension to a high of 16.7 percent among those being treated for arthritis.

Q8d. Base: Only respondents who indicated on question q8b that they use only branded medication to treat an ailment were asked the following question:

“Are generic medication available for the ailment(s) for which you have been treated with only branded medication?”

The results are summarised in the Table A-20 below.

**Table A-20 Awareness of Availability of Generic among Exclusive ‘Brand Users’**

Awareness of availability of generic medication	% of respondents				
	Arthritis	Asthma	Diabetes	Hypertension	High Cholesterol
Yes	35.0	55.6	40.0	56.3	30.0
No	0.0	11.1	10.0	0.0	10.0
Do not know	65.0	33.3	50.0	43.8	60.0
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.1</b>	<b>100.0</b>
Number of respondents	20	9	10	32	10
Number of non-responses	2	11	1	2	1

The table above summarises the responses of individuals who indicate that they are treated with branded medication only for at least one of the listed chronic ailments. In general, a sizeable proportion of respondents indicate that they do not know whether a generic alternative is available to treat their ailment(s). This proportion ranges from a high of 65.0 percent among the 20 persons reporting to being treated for arthritis to a low of 33.3 percent among the 9 persons being treated for asthma. Similarly, a large proportion of individuals were aware of the availability of generic alternatives to treat their ailments. Some 35.0 percent of persons being treated with arthritis are aware of



generic treatments compared to the 56.3 percent of the 32 persons being treated for hypertension.

Q9a. Base: Only respondents who indicated that they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“When filling your prescription do you fill the prescribed amount all at once?”

The respondents were instructed to select only one of five options provided.

The results are summarised in Table A-21 below.

**Table A-21 Frequency with which Rx is filled all at Once**

	<b>% of respondents</b>
<i>All the time</i>	38.9
<i>On most occasions</i>	32.6
<i>Sometimes</i>	23.8
<i>On a few occasions</i>	2.5
<i>Never all at once</i>	2.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 365	
Number of non-responses = 6	

A total of 365 persons responded to this question, only 38.9 percent of which indicated that they fill the prescribed amount all at once ‘all the time.’ Another 32.6 percent reported filling the prescribed amount ‘on most occasions’ and 23.8 percent fills the prescribed amount ‘sometimes.’

Q9b. Base: Only respondents who indicated that they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Do you take your medication as prescribed?”

The respondents were instructed to select only one of five options provided.

The responses are summarised below in Table A-22.

**Table A-22 Do Consumers take Rx in the Manner Indicated by Physicians?**

	<b>% of respondents</b>
<i>All the time</i>	52.0
<i>On most occasions</i>	29.4
<i>Sometimes</i>	15.8
<i>On a few occasions</i>	2.2
<i>Never all at once</i>	0.5
<b>Total &lt; 100% due to error in rounding</b>	<b>99.9</b>
Number of respondents = 367	
Number of non-responses = 4	

A total of 367 persons responded to this question. The table shows that 52.0 percent of these individuals reported following the physician's instruction for taking the medication 'all the time' with another 29.4 percent indicating they followed the physician's instruction for taking the medication 'on most occasions.'

Q10. Base: Only respondents who indicated they were familiar with the term 'generic medication' and were sure of what it referred to were eligible to respond to the following question:

"Do you currently use a health insurance provider?"

The results are summarised in Table A-23 below.

**Table A-23 Usage of Health Insurance**

	<b>% of respondents</b>
Yes	46.7
No	53.3
<b>Total</b>	<b>100.0</b>
Number of respondents = 366	
Number of non-responses = 3	

A total of 366 persons responded to this question. The table shows that 46.7 percent of these individuals had health insurance at the time of the survey.

Q11b Base Only respondents who currently use health insurance were asked the following question:

“Does this insurance policy provide you with a limited or unlimited amount for purchasing prescription medication?”

The responses are summarised below in Table A-24.

**Table A-24 Spending Caps on Health Insurance**

	<b>% of respondents</b>
Limited	87.1
Unlimited	12.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 170	
Number of non-responses = 1	

A total of 170 persons responded to this question. The table shows that 87.1 percent of these individuals with health insurance had an unlimited amount for purchasing medication.

Q12. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Generally speaking, how frequently do you visit your physician?”

The responses are summarised below in Table A-25.

**Table A-25 Frequency of Visits to Physicians**

	<b>% of respondents</b>
Once per week or more often	0.8
Once every two weeks	0.0
Once every three to four weeks	6.0
Once every 2 to 3 months/ 4 to 6 times per year	35.1
Once every 4 or 5 months	18.6
Once every 6 months/ twice per year	22.5
Less than twice per year	17.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 365	
Number of non-responses = 6	

A total of 365 persons responded to this question. The table shows that 35.1 percent of the respondents visit their physician approximately once every two to three months with another 18.6 percent visiting their physicians once every four or five months. The table shows also that 17.0 percent visit their physician less than twice per year.

Q13a. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“When you visit this physician do you ask him/her for a specific type of medication, branded or generic?”

The results are presented in Table A-26 below.

**Table A-26 Do Consumers Request Specific Types of Rx?**

	<b>% of respondents</b>
Yes	9.4
No	90.6
<b>Total</b>	<b>100.0</b>
Number of respondents = 362	
Number of non-responses = 7	

A total of 362 persons responded to this question. The table shows that only 9.4 percent of these individuals asked specifically for either the branded or generic type of medication.

Q13b. Base: Only respondents who indicated in question q13a that they asked for a specific type of medication was asked the following question:

“And on average, say for every ten visits you make to your physician on how many occasions would you say you ask for a specific medication?”

The results are presented below in Table A-27.

**Table A-27 Extent to which Consumers Request Specific Types of Rx**

Number of requests	% of respondents
One	16.1
Two	16.1
Three	9.7
Four	12.9
Five	3.2
Six	9.7
Seven	6.5
Eight	9.7
None	3.2
Ten	12.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 31	
Number of non-responses = 3	

A total of 31 persons responded to this question. The table shows that 58.1 percent of these individuals asked specifically for either the branded or generic type of medication on at least four out of every ten visits to their physicians.

Q13c. Base: Only respondents who indicated in question q13a that they made at least one request for specific type of medication were asked the following question:

“On how many occasions have the physician said no to your request for either a branded or generic medication?”

The responses are summarised in Table A-28 below.

**Table A-28 Extent to which Consumer Requests for Rx are Facilitated**

Number of rejections	% of respondents
None	77.4
One	6.5
Two	9.7
Three	6.5
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.1</b>
Number of respondents = 31	
Number of non-responses = 3	

A total of 31 persons responded to this question. The table shows that physicians do not reject any request from 77.4 percent of these individuals.

Q13d. Base: Only respondents who indicated in question q13a that they made at least one request for specific type of medication were asked the following question:

“Have you ever visited another physician because your usual physician said no to your request?”

The results are summarised in Table A-29 below.

**Table A-29 Do Consumers Shop around for Specific Types of Rx?**

	% of respondents
Yes	3.5
No	96.6
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.1</b>
Number of respondents = 29	
Number of non-responses = 5	

A total of 29 persons responded to this question. The table shows that only 3.5 percent of the respondents have ever visited other physicians when their requests were not granted.

Q14a. Base: Only respondents who indicated in question q13a that they made at least one request for specific type of medication were asked the following question:

“Which type of medication do you ask for more often?”

The responses are presented below in Table A-30.

**Table A-30 Which type of Rx is requested more often?**

	<b>% of respondents</b>
Branded	45.5
Generic	42.4
I do not ask for either more often than the other	12.1
<b>Total</b>	<b>100.0</b>
Number of respondents = 33	
Number of non-responses = 1	

A total of 33 persons responded to this question. The table shows that 45.5 percent indicated they ask for branded medication more often than they ask for generic medication whilst 42.4 percent indicated that they ask for generic medication more often than they ask for branded medication.

Q14b. Base: Only respondents who indicated in question q13a that they made at least one request for specific type of medication were asked the following question:

“What factors influence the type of medication that you request?”

The responses are summarised in Table A-31 below.

**Table A-31 Main Influence on Consumer Request for Specific Type of Rx**

<b>Influences (determinants) of consumer request</b>	<b>% of respondents</b>
Advertisement	6.7
physical appearance of medication	6.7
Availability of the medication	23.3
Doctor/ Nurse Recommended	41.9
Family/ Friend Recommended	6.7
Pharmacist Recommended	10.0
Price of the medication	33.3
Side effects	30.0
Tradition (it's what I have always used)	16.7
Value for money	26.7
<b>Total &gt; 100% since respondents selected multiple influences</b>	
Number of respondents = 30	
Number of non-responses = 4	

A total of 30 persons responded to this question. The table shows that the recommendation of the doctor or nurse (41.9 percent), the price of the medication (33.3 percent) and side effects (30.0 percent) are among the most prevalent factors which influence the type of medication requested by consumers.

Q15. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“How frequently would you say you purchase a prescription medication?”

The results are presented below in Table A-32.

**Table A-32 Frequency of Consumer Purchase of Rx**

<b>Frequency of purchasing prescription medication</b>	<b>% of respondents</b>
More often than once per week	0.3
Once per week	1.1
Once every two weeks	1.9
Once every three weeks	1.7
Once per month	18.2
Once every 2 months	12.2
Once every 3 months/ four times per year	22.1
Once every 4 or 5 months	13.8
Once every six months/ twice per year	17.1
Less frequently than twice per year	11.6
<b>Total</b>	<b>100.0</b>
Number of respondents = 362	
Number of non-responses = 9	

A total of 362 persons responded to this question. The table shows that 48.1 percent of the respondents purchase prescription medication once approximately every two to five months while approximately 23.2 percent purchased prescription medication at least once every month.



Q16a. Base: Only respondents who indicated they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Would you request the branded medication at the pharmacy even though your Doctor prescribed a generic medication?”

The results are presented in Table A-33 below.

**Table A-33 Incidence of Consumer Substitution of Generic R**

	<b>% of respondents</b>
Yes	14.4
No	73.4
Depends	12.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 361	
Number of non-responses = 10	

A total of 361 persons responded to this question. The majority of respondents (73.4 percent) indicated that they would not request a branded drug from the pharmacist if generic medication was prescribed while 14.4 percent indicated they would request the branded medication.

Q16b. Base: Only respondents who indicated in question q16a that they would not ask for a branded medication were asked the following question:

“Why wouldn’t you request the branded medication?”

The responses are summarised below in Table A-34.

**Table A-34 Main Reasons for not Substituting Generic Rx**

<b>Reasons</b>	<b>% of respondents</b>
It would not be safe to do so.	4.3
My Doctor knows best.	81.9
Other	13.3
<b>Total &gt; 100% because respondents selected multiple options</b>	
Number of respondents = 262	
Number of non-responses = 2	

A total of 262 responded to this question. Approximately 81.9 percent of the respondents indicated that they would not ask for branded medication because the doctor knows what is best for them.

Q16c. Base: Only respondents who indicated in question q16a that whether they requested branded medication would depend on other factors were asked the following question:

“What factors would the decision depend on?”

The results are summarised in Table A-35 below.

**Table A-35 Other Reasons for not Substituting Generic Rx**

	<b>% of respondents</b>
The type of ailment I am being treated for	38.1
Whether I can afford the branded medication	26.2
My trust in the Doctor	14.3
Other	21.4
<b>Total</b>	<b>100.0</b>
Number of respondents = 42	
Number of non-responses = 2	

A total of 42 persons responded to this question. Approximately 38.1 percent of the respondents indicated that their decision would depend on the type of ailment that they are being treated for, 26.2 percent indicate that their decision would depend on the affordability of the branded medication, 14.3 percent indicated that their trust in the

doctor is an important factor in the decision and 21.4 percent indicated that their decision would depend on factors not listed in the table.

Q17a. Base: Only respondents who indicated that they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Would you request a generic medication at the pharmacy even though your Doctor prescribed a branded medication?”

The results are presented in Table A-36 below.

**Table A-36 Incidence of Consumer Substitution of Branded  $R_x$**

	<b>% of respondents</b>
Yes	19.7
No	65.4
Depends	14.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 355	
Number of non-responses = 16	

A total of 355 persons responded to this question. The table shows that 65.4 percent would not request a generic medication if a branded medication is prescribed.

Q17b. Base: Only respondents who indicated in question Q17a that they would not request the generic medication were asked the following question:

“Why wouldn’t you request the generic medication?”

The responses are summarised in Table A-37 below.

**Table A-37 Main Reasons for not substituting Branded Rx**

	<b>% of respondents</b>
It would not be safe to do so.	7.9
My Doctor knows best.	79.4
Other	14.6
Total > 100% because respondents selected multiple options.	101.9
Number of respondents = 228	
Number of non-response = 4	

A total of 228 persons responded to this question. The table shows that 79.4 percent would not request a generic medication because they hold the view that the ‘doctor know best.’

Q17c. Base: Only respondents who indicated in question q17a that their decision to request the generic medication was dependent on other factors were asked the following question:

“What factors would the decision depend on?”

The results are presented in Table A-38 below.

**Table A-38 Other Reasons for not substituting Branded Rx**

	<b>% of respondents</b>
The type of ailment I am being treated for	28.0
Whether I can afford the generic medication	30.0
My trust in the doctor	14.0
Other	34.0
<b>Total &gt; 100% because respondents selected multiple options.</b>	
Number of respondents = 50	
Number of non-responses = 3	

A total of 50 persons responded to this question. The table shows that the type of ailment is a key factor for 28.0 percent of the respondents and the ‘trust placed in the doctor’ is important for 14.0 percent. It is unclear why 30.0 percent selected affordability of the generic medication since generics are cheaper than branded medication. Other factors are important for 34.0 percent of the respondents.

Q18. Base: Only respondents who indicated that they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Are you aware of Government efforts encouraging the use of generic medication?”

The results are presented below in Table A-39.

**Table A-39 Consumer Awareness of Govt efforts regarding use of Generic Rx**

	<b>% of respondents</b>
Yes	47.7
No	52.3
<b>Total (n=361)</b>	<b>100.0</b>
Number of respondents = 363	
Number of non-respondents = 8	

A total of 363 persons responded to this question. Approximately 52.3 percent were not aware of the Government’s efforts encouraging the use of generic medication.

Q19. Base: Only respondents who indicated that they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Do you know of the National Health Fund (NHF)?”

The results are presented below in Table A-40.

**Table A-40 Consumer Awareness of NHF**

	<b>% of respondents</b>
Yes	82.8
No	17.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 354	
Number of non-responses = 17	

A total of 354 persons responded to this question. Approximately 17.2 percent are not aware of the National Health Fund.

Q20a. Base: Only respondents who indicated they were aware of the NHF were asked the following question:

“Have you ever signed up for a NHF card?”

The responses are presented in Table A-41 below.

**Table A-41 Enrolment in the NHF**

	<b>% of respondents</b>
Yes	26.7
No	73.3
<b>Total</b>	<b>100.0</b>
Number of respondents = 281	
Number of non-respondents = 12	

Approximately 26.7 percent of the 281 respondents are signed up with the NHF.

Q20b. Base: Only respondents who indicated in q20a that they had never signed up for the NHF card were asked the following question:

“What is your main reason for not signing up for the card?”

The responses are summarised and presented in Table A-42 below.

**Table A-42 Main Reasons Consumers do not Enrol in NHF**

	<b>% of respondents</b>
Not qualified	7.9
Already have private insurance	8.9
Not worth having	1.5
Not interested	19.2
Uninformed about procedure	16.3
Thought it was for the elderly only	2.5
In the process of applying	4.4
Do not have the time	10.8
No reason	15.8
Do not have ailments covered	5.9
Other	6.9
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>
Number of respondents = 203	
Number of non-responses = 3	

A total of 203 persons responded to this question. The table shows that 5.9 percent indicated that they have not enrolled because they do not have any of the ailments covered by NHF. It also shows that 20.7 percent is not enrolled because they are either not interested or do not think the NHF is worth being enrolled in. There is evidence that at least 2.5 percent of the respondents are mis-informed about the NHF as they think that the NHF is for the elderly only while another 16.3 percent indicated that they are uninformed about the procedure for enrolment.

Q21a. Base: Only respondents who indicated in question q20a that they signed up for the NHF card were asked the following question:

“Did you use the NHF card on the last prescription that you filled?”

The results are summarised in Table A-43 below.

**Table A-43 Use of NHF among Cardholders**

	<b>% of respondents</b>
Yes	58.2
No	41.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 67	
Number of non-responses = 8	

A total of 67 persons responded to this question. It shows that 58.2 percent of the respondents used the NHF card for the last prescription that they filled.

Q21b. Base: Only respondents who indicated in q21a that they did not use the card were asked the following question:

“What is the reason for not using the card?”

The results are presented in Table A-44 below.

**Table A-44 Main Reasons for Not Using the NHF Card**

<b>Main Reasons</b>	<b>% of respondents</b>
Private insurance provide better benefits	20.7
Card not yet issued/ received	6.9
Drugs not covered by NHF	10.3
Did not have card on hand	24.1
Other	37.9
<b>Total &lt; 100% due to error in rounding</b>	<b>99.9</b>
Number of respondents = 29	
Number of non-responses = 10	

A total of 29 persons responded to this question. The table shows that 20.7 percent of respondents did not use the NHF because they think that insurance offered from private enterprises provided better benefits while another 10.3 percent indicated that the drugs they wanted were not covered by the NHF. It is also seen that 24.1 percent did not use the card because they did not have the card on hand.

Q21c. Base: Only respondents who indicated in q20a that they used the NHF card on the last prescription filled were asked the following question:

“How long have you been a member?”

The results are summarised in Table A-45 below.

**Table A-45 Membership duration in the NHF**

	<b>% of respondents</b>
Less than 6 months	15.4
6 – 11 months	15.4
1 year or more but less than 3 years	35.9
3 years or more but less than 5 years	20.5
5 years or more	12.8
<b>Total (n=539)</b>	<b>100.0</b>
Number of respondents = 39	
Number of non-responses = 0	

A total of 39 persons responded to this question. The table shows that more than three-tenths of the respondents (30.8 percent) have been enrolled in the NHF for a period less



than one year with another 56.4 percent holding membership for between one to five years. The remaining 12.8 percent held membership for a period in excess of five years.

Q22. Base: Only respondents who indicated that they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Do you know of the Jamaica Drugs for the Elderly Programme (JADEP)?”

The results are presented below in Table A-46.

**Table A-46 Consumer Awareness of JADEP**

	<b>% of respondents</b>
Yes	66.1
No	33.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 357	
Number of non-responses = 14	

A total of 357 persons responded to this question. It shows that 66.1 percent of the respondents have heard of the JADEP.

Q23a. Base: Only respondents who had indicated in question q22 that they were aware of JADEP and 60 years or older, and hence eligible for JADEP, were asked the following question.

“Have you ever signed up for a JADEP card?”

The results are presented below in Table A-47.

**Table A-47 Enrolment in JADEP among Eligible Consumers**

<b>JADEP membership</b>	<b>% of respondents</b>
Yes	60.0
No	40.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 50	
Number of non-responses = 9	

A total of 47 persons responded to this question. It shows that 61.7 percent have signed up for the program.

Q23b. Base: Only respondents who indicated in q23a that they had never signed up for the JADEP card were asked the following question:

“What is your main reason for not signing up for the card?”

The results are presented below in Table A-48.

**Table A-48 Main Reasons for non-enrolment in JADEP**

	<b>% of respondents</b>
Not needed/ have private insurance	38.9
Not interested	11.1
In the process of applying	16.7
No reason	5.6
Do not know what to do to sign up	16.7
Other	11.1
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>
Number of respondents = 18	
Number on non-responses = 0	

A total of 18 persons responded to this question. The table shows that 38.9 percent did not enrol in JADEP because they do not need it or they have insurance from private enterprises. It is also seen that 11.1 percent were not interested in the being enrolled.

Q24a. Base: Only respondents who indicated in question q23a that they signed up for the JADEP card were asked the following question:

“Did you use the JADEP card the last time you filled a prescription?”

The results are presented below in Table A-49.

**Table A-49 JADEP Usage of JADEP Card among Cardholders**

	<b>% of respondents</b>
Yes	55.2
No	44.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 29	
Number of non-responses = 0	

A total of 29 persons responded to this question. It shows that 55.2 percent of the respondents used the JADEP card the last time they filled a prescription.

Q24b. Base: Only respondents who indicated in Q24a that they did not use the JADEP card the last time they filled a prescription were asked the following question:

“What is your main reason for not using the card?”

The results are presented below in **Table A-50**.

**Table A-50 Main Reason for Non-usage of JADEP Cards**

	<b>% of respondents</b>
Card not accepted at pharmacy	14.3
Drugs not covered by card	21.4
Have not received card as yet	28.6
Other	35.7
<b>Total</b>	<b>100.0</b>
Number of respondents = 14	
Number of non-responses = 2	

A total of 14 persons responded to this question. The table shows that two respondents (14.3 percent) did not use the JADEP card because the card was not accepted at the pharmacy which they went to fill the prescription. Another three respondents (21.4 percent) indicated that the medication they wanted was not covered by the card.

Q24c. Base: Only respondents who indicated in q23a that they signed up for the JADEP card were asked the following question:

“How long have you been a member?”

The responses are summarised below in Table A-51.

**Table A-51 Membership Duration in JADEP**

	<b>% of respondents</b>
Less than 6 months	12.5
6 – 11 months	12.5
1 year or more but less than 3 years	68.8
3 years or more	6.3
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>
Number of respondents = 16	
Number of non-responses = 0	

A total of 16 persons responded to this question. The table shows that four respondents (25.0 percent) of the respondents have been members of the program for less than one year with another eleven respondents (68.8 percent) being members for between one and three years.

Q25a. Base: Only respondents who indicated that they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Have you ever heard of the Health Corporation Limited (HCL)?”

The results are presented below in Table A-52.

**Table A-52 Awareness of the HCL**

	<b>% of respondents</b>
Yes	9.1
No	90.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 351	
Number of non-responses = 20	

A total of 351 persons responded to this question. It shows that 90.9 percent of the respondents have never heard of the Health Corporation Limited.

Q25b. Base: Only respondents who indicated in question q25a that they had heard of the HCL were asked the following question:

“Who established the Health Corporation Limited (HCL)?”

The results are presented below in Table A-53.

**Table A-53 Awareness of Government link to HCL**

	<b>% of respondents</b>
Government	25.9
Do not know	74.1
Total	100.0
Number of respondents = 27	
Number of non-responses = 5	

A total of 27 persons responded to this question. The table shows that 25.9 percent of respondents were aware of the government's association with the HCL.

Q26. Base: Only respondents who indicated that they were familiar with the term 'generic medication' and were sure of what it referred to were eligible to respond to the following question:

"For how long have you been purchasing prescription medication in Jamaica?"

The results are presented below in Table A-54.

**Table A-54 Duration of Purchasing Rx**

	<b>% of respondents</b>
less than one year	1.1
1 year or more but less than 3 years	8.6
3 years or more but less than 5 years	9.1
5 years or more but less than 7 years	11.1
7 years or more but less than 9 years	8.0
9 years or more	62.1
<b>Total</b>	<b>100.0</b>
Number of respondents = 351	
Number of non-responses 20	

A total of 351 persons responded to this question. The table shows that 81.2 percent of respondents have been purchasing prescription drugs for at least five years with some 62.1 percent doing so for nine years or more. In contrast, approximately 1.1 percent was purchasing drugs for a period less than one year.

Q27. Base: Only respondents who indicated in question q8b that they have used generic medication were asked the following question:

“Which of the following statements BEST describes your trend in purchasing prescription medication? Over the period in which I have been purchasing generic prescription medication, I have noticed...?”

The results are presented in Table A-55 below.

**Table A-55 Consumer Opinion on Trends in Purchases of Rx**

	<b>% of respondents</b>
... a significant increase in my tendency to purchase a generic version of a medication	27.6
... a slight increase in my tendency to purchase generic version of a medication	24.1
... no change in my tendency to purchase a generic version of a medication	37.9
... a slight decline in my tendency to purchase a generic version of a medication	6.9
... a significant decline in my tendency to purchase a generic version of a medication	3.5
<b>Total</b>	<b>100.0</b>
Number of respondents = 29	
Number of non-responses = 0	

A total of 29 persons responded to this question. A total of 51.7 percent of the respondents reported that there is an increase in their tendency to purchase generic drugs. This proportion comprises 24.1 percent of respondents who indicated a slight increase and 27.6 who reported that the increase is significant. Contrastingly, 10.4 percent reported a fall off in their tendency to purchase generics and another 37.9 percent indicated that there is no change in their tendency to purchase generic drugs.

Q28. Base: Only respondents who indicated that they were familiar with the term ‘generic medication’ and were sure of what it referred to were eligible to respond to the following question:

“Considering the effectiveness of prescription medication over the period in which you have been purchasing prescription medication, what trends have you observed in relation to the price of prescription medication?”

The results are summarised below in Table A-56.

**Table A-56 Consumer Opinion on Trends in Price of Rx, considering effectiveness**

	<b>% of respondents</b>
Price of prescription medication has been more reasonable	18.3
Price of prescription medication has been less reasonable	50.8
I have not noticed any trend in the price of prescription medication	31.0
Total > 100% due to errors in rounding	100.1
Number of respondents = 323	
Number of non-responses = 48	

A total of 323 individuals responded to this question. As much as 18.3 percent think that the trend in the price of the prescription medication is more reasonable whereas 50.8 percent disagrees and believes instead that the price is less reasonable. Another 31.0 percent has not noticed any trend in the price of prescription medication.

Q29. Base: All respondents were eligible to respond to the following:

“Please select one of the following: ‘Over the period in which I have been purchasing prescription medication, I’ve noticed....’ ”

The results are presented below in Table A-57.

**Table A-57 Consumer Perceptions of effectiveness of Rx**

	<b>% of respondents</b>
a considerable improvement in the effectiveness of prescription medication I use.	24.8
a slight improvement in the effectiveness of prescription medication I use.	26.1
no difference in the effectiveness of prescription medication I use.	44.4
a slight decline in the effectiveness of prescription medication I use.	4.0
a significant decline in the effectiveness of prescription medication I use.	0.6
<b>Total &lt; 100% due to errors in rounding</b>	<b>99.9</b>
Number of respondents = 322	
Number of non-responses = 49	

A total of 322 individuals responded to this question. Some 50.9 percent have noticed improvement in the effectiveness of prescription medication that they use with 24.8 percent stating that the improvement is considerable. In contrast, only 4.6 percent notice a decline in the effectiveness. Approximately 44.4 percent have not observed and change in the effectiveness of prescription medication.

Q30a. Base: All respondents were eligible to respond to the following question.

“Do you think you were ever ‘unfairly’ treated by anyone while acquiring health care services?”

The results are presented below in Table A-58.

**Table A-58 Incidence of alleged ‘unfair’ treatment against Consumers**

	<b>% of respondents</b>
Yes	9.7
No	90.3
<b>Total</b>	<b>100.0</b>
Number of respondents = 992	
Number of non-responses = 38	

A total of 992 individuals responded to this question. The table shows that 9.7 percent think that they were ever treated ‘unfairly’ while acquiring health services.



Q30b. Base: Only respondents who indicated in Q30a that they were treated unfairly were asked the following question.

“For the most recent incident, who treated you unfairly?”

The results are summarised in Table A-59 and Table A-60.

**Table A-59 Persons Alleged to have Treated Consumers ‘Unfairly’**

	<b>% of respondents</b>
Doctor	37.0
Pharmacist/ pharmacy	37.0
Health insurer	6.5
Other	30.4
<b>Total &gt; 100% since respondents selected more than one option</b>	
Number of respondents = 92	
Number of non-responses = 4	

A total of 92 individuals responded to this question. The table above shows that 37.0 percent alleges to have been unfairly treated by doctors; 37.0 percent by a pharmacist/ at a pharmacy; 6.5 percent by their health insurers; and 30.4 percent by other institutions.

The responses in the “other” category for question q30b are summarised in Table A-60 below.

**Table A-60 Other Persons Alleged to have Treated Consumers ‘Unfairly’**

	<b>% of respondents</b>
Hospital Staff	79.3
Nurse/ Doctor	13.8
Other	6.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 29	
Number of non-responses = 0	

A total of 29 individuals allege to have been treated unfairly by persons other than those listed in question q30b. Of this number, twenty three respondents (79.3 percent) claims to have been treated unfairly by hospital staff other than the nurse and doctors. Another

four respondents (13.8 percent) reported that they were treated unfairly by doctors and nurses.

Q30c. Base: Only respondents who indicated in question q30a that they were treated unfairly were asked the following question.

“Briefly describe the most recent incident”

The results are presented below in Table A-61.

**Table A-61 Description of Alleged ‘Unfair’ Treatment**

	<b>% of respondents</b>
Doctor prescribed bad/wrong/ ineffective medication	20.2
Poor customer service	51.7
Medication was expensive	15.7
Other	12.4
<b>Total</b>	<b>100.0</b>
Number of respondents = 89	
Number of non-responses = 7	

A total of 89 persons responded to this question. It shows that a majority of the respondents (51.7 percent) complained of poor customer service whereas as 20.2 percent claims that the doctor prescribed either bad/wrong or ineffective medication. Another 15.7 percent complain that the medication prescribed was expensive.

Q30d. Base: Only respondents who indicated in question q30a that they were treated unfairly were asked the following question.

“Did you try to get the matter resolved?”

The results are presented below in Table A-62.

**Table A-62 Do Consumers Seek Resolution?**

	<b>% of respondents</b>
Yes	31.5
No	68.5
<b>Total</b>	<b>100.0</b>
Number of respondents = 89	
Number of non-responses = 7	

A total of 89 persons responded to this question. The table above shows that 31.5 percent of the respondents attempted to get their matters resolved.

Q30e. Base: Only respondents who indicated in question q30d that they tried to get the matter resolved were asked the following question.

“Where did you go to get the matter resolved?”

The results are presented in Table A-63 below.

**Table A-63 Where do Consumers Seek Resolution?**

	<b>% of respondents</b>
Directly approached the person	66.7
Health insurer	12.5
Other	20.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 24	
Number of non-responses = 4	

A total of 24 persons responded to the question. The table shows that two-thirds (66.7 percent) of the respondent attempted to resolved the matter with the person they think had treated them unfairly.

Q30f. Base: Only respondents who indicated in question q30a that they were treated unfairly were asked the following question.

“Was the matter satisfactorily resolved?”

The results are presented below in Table A-64.

**Table A-64 Are Consumers Satisfied with how Matters are Resolved?**

	<b>% of respondents</b>
Yes	64.0
No	36.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 24	
Number of non-responses = 4	

A total of 24 individuals responded to this question. It shows that just under two- thirds (64.0 percent) of the respondents are satisfied with the way in which the matter was resolved while the remaining 36.0 percent are not satisfied.

Q31. Base: All respondents were eligible to respond to the following statement:

“Name all the places you think you could get assistance with any problem encountered in the health care industry”

The results are presented below in Table A-65.

**Table A-65 Consumer Awareness of Places to seek Redress**

<b>Institutions to get help</b>	<b>% of respondents</b>
MoH	22.6
Health care facility	21.7
Physician	13.9
CAC	6.4
Mass Media	3.8
Pharmacist	3.8
Lawyer	1.9
Police	1.9
Jamaicans for Justice	1.0
MAJ	1.0
FTC	0.6
NHF	0.6
Health Insurer	0.5
Head of own work place	0.5
Ombudsman	0.2
Church	0.2
Bureau of Standards Jamaica	0.2
Parliament	0.1
Medical Council of Jamaica	0.1
Family/ friends	0.5
Council for the Elderly	0.1
Other	0.3
Do not know	40.4
<b>Total &gt; 100% because respondents were allowed to provide multiple options</b>	
Number of respondents = 873	
Number of non-responses = 157	

A total of 873 persons responded to the question. Table A-65 above shows that 40.4 percent of the respondents do not know where they could go to get redress for problems encountered in the health care industry. It is also seen that 22.6 percent identify the

Ministry of Health as a place to get redress. Less than one percent of the respondents identify the FTC as a place they could get redress.

D3. Base: All respondents were eligible to respond to the following question:

“What is your occupation?”

The responses are summarised below in Table A-66.

**Table A-66 Occupation of Respondents**

<b>Occupation<sup>1</sup></b>	<b>% of respondents</b>
Legislators, senior officials & Managers	0.3
Professionals	6.7
Technicians and Associate Professions	1.1
Clerks	12.4
Service workers and shop and market sales workers	23.5
Skilled agricultural and fishery workers	4.8
Craft and related trades workers	3.5
Plant and machine operators and assemblers	4.0
Elementary occupations	6.3
Armed forces	0.2
Unclassified <sup>2</sup>	37.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 1,018	
Number of non-responses = 12	

Notes:

1. Classification of occupations is based on STATIN (1995).

2. This category captures individuals whose response was too ambiguous to classify their occupation in any of the categories listed above. For instance individuals who responded “unemployed”, “retired”, “pensioner”, etc. are counted in this group.

D4. Base: All respondents were eligible to respond to the following question:

“What is the occupation of the head of the household?”

The responses are summarised below in Table A-67.

**Table A-67 Occupation of Household Head**

<b>Occupation<sup>1</sup></b>	<b>% of respondents</b>
Legislators, senior officials & managers	0.3
Professionals	6.7
Technicians and Associate Professions	1.1
Clerks	12.4
Service Workers and shop and market sales workers	23.5
Skilled agricultural and fishery workers	4.8
Craft and related trades workers	3.5
Plant and machine operators and assemblers	4.0
Elementary occupations	6.3
Armed forces	0.2
Unclassified <sup>2</sup>	37.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 1,018	
Number of non-responses = 12	

Notes:

1. Classification of occupations is based on STATIN (1995).

2. This category captures individuals whose response was too ambiguous to classify their occupation in any of the categories listed above. For instance individuals who responded “unemployed”, “retired”, “pensioner”, etc. are counted in this group.

D5. Base: All respondents were eligible to respond to the following question:

“What is the highest level of education you achieved?”

The responses are summarised below in

Table A-68.

**Table A-68 Education Status of Respondent**

<b>Highest level of education</b>	<b>% of respondents</b>
No formal education	1.9
Primary/ Preparatory	28.3
Secondary/ High	43.0
Vocational/ Technical	10.0
College	10.0
University	7.0
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.2</b>
Number of respondents = 992	
Number of non-responses = 38	

A total of 992 responded to this question. The table shows that 30.2 percent have not achieved an education higher than the primary level. Of the other 69.8 percent, 43.3 percent have not advanced beyond the secondary level. Approximately 17.0 percent have achieved a tertiary level (i.e., college and university) education.



D6. Base: All respondents were eligible to respond to the following question:

“What is the highest level of education achieved by the head of the household?”

The responses are summarised below in Table A-69.

**Table A-69 Education Status of Household Head**

<b>Highest level of education</b>	<b>% of respondents</b>	<b>% Census</b>
No formal education	1.7	
Primary/ Preparatory	30.2	
Secondary/ High	40.4	
Vocational/ Technical	10.6	
College	10.1	
University	7.0	
<b>Total</b>	<b>100.0</b>	
Number of respondents = 1,017		
Number of non-responses = 13		

A total of 992 responded to this question. The table shows that 31.9 percent of household heads have not achieved an education higher than the primary level. Approximately 7.1 percent have tertiary level (college and university) education.

D7. Base: All respondents were eligible to respond to the following question:

“What is the approximate combined monthly take-home salary for the household?”

The responses are summarised below in Table A-70

**Table A-70 Household Monthly Take-home Salary**

<b>Combined monthly take-home salary (JMD)</b>	<b>% of respondents</b>
less than 10, 000	13.6
10,001 - 20,000	16.0
20,001 - 30,000	13.1
30,001 - 40,000	8.6
40,001 - 50,000	5.6
50,001 - 60,000	3.4
60,001 - 70,000	2.4
70,001 - 80,000	2.3
80,001 - 100,000	1.7
more than 100,000	1.6
Refused	17.4
Do not Know/ Can't Recall	14.2
<b>Total &lt; 100% due to errors in rounding</b>	<b>99.9</b>
Number of respondents = 1,016	
Number of non-responses = 14	

A total of 1,016 responded to this question. It shows that the combined monthly income is less than JMD 40,000 for 51.3 percent of the respondents.

D8. Base: All respondents were eligible to respond to the following question:

“Do you have access to the Internet?”

The results are presented below in Table A-71.

**Table A-71 Do Consumers have access to the Internet?**

	<b>% of respondents</b>
Yes	30.1
No	69.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 1,023	
Number of non-responses = 7	

A total of 1,023 persons responded to the question. The table shows that 30.1 percent have access to the internet.

Base: All respondents were eligible to respond to the following:

“Parish of Residence: \_\_\_\_\_”

The results are summarised below in Table A-72.

**Table A-72 Distribution of Residence, by Parish**

	<b>% of respondents</b>
Clarendon	7.9
Hanover	4.7
Kingston	7.5
Manchester	8.1
Portland	4.9
St. Andrew	10.3
St. Ann	7.6
St. Catherine	16.4
St. Elizabeth	7.1
St. James	1.5
St. Mary	5.6
St. Thomas	4.5
Trelawny	3.8
Westmoreland	10.2
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>
Number of respondents = 1,026	
Number of non-responses = 4	

## APPENDIX B. RESULTS OF PHYSICIAN SURVEY

D1 Sample: All respondents (242 of them) were asked the following question:

“To which age group do you belong?”

The responses are summarised below in Table B-1.

**Table B-1 Age Distribution of Physicians**

Age group	% of respondents
<25	1.3
25-29	15.1
30-34	12.2
35-44	31.5
45-54	25.6
55-64	11.3
65-74	2.1
>74	0.8
<b>Total &lt; 100% due to errors in rounding</b>	<b>99.9</b>
Number of respondents = 242	
Number of non-responses = 0	

The table above shows that 57.1 percent of the respondents are between the ages of 35 and 54 years with as many as 31.5 percent in the 35-44 age group.

D2 Sample: All respondents (242 of them) were asked to indicate their gender.

The responses are summarised below in Table B-2.

**Table B-2 Gender Distribution**

Gender	% of respondents
Male	66.8
Female	33.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 226	
Number of non-responses = 16	

The table shows that approximately 66.8 percent of the respondents are male physicians.

D3 Sample: All respondents (242 of them) were asked the following question:

“Do you have access to the Internet?”

The responses are summarised below in Table B-3.

**Table B-3 Access to Internet**

<b>Internet access</b>	<b>% of respondents</b>
Yes	95.3
No	4.7
<b>Total</b>	<b>100.0</b>
Number of respondents = 236	
Number of non-responses = 6	

The table shows that 95.3 percent of physicians responding to this question indicate that they have access to the Internet.

F1a Sample: All respondents (242 of them) were asked the following question.

“Are you a member of any Preferred Provider Organization (PPO)/ Physician list (similar to an HMO)?”

The responses are summarised below in Table B-4.

**Table B-4 Membership in PPOs**

<b>PPO membership?</b>	<b>% of respondents</b>
Yes	46.2
No	53.9
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.1</b>
Number of respondents = 221	
Number of non-responses = 21	

The table shows that approximately 46.2 percent of respondents are members of a PPO.

F1b Sample: Only respondents who indicated in question F1a that they were members of a PPO (102 of them) were asked the following question:

“Which one(s) [are you a member of]?”

The responses are summarised below in Table B-5.

**Table B-5 Membership by PPO**

<b>PPO</b>	<b>% of respondents</b>
AGGP	0.9
Alcan	0.9
ATL	2.0
Blue Cross	57.8
First Life	14.7
HMO	4.9
Jamaica Medical Association of Jamaica	1.0
Junior Doctors Association	2.9
Life of Jamaica	21.6
Medecus	18.6
Medical Association of Jamaica	2.9
National Health Fund	7.8
WMA	1.0
<b>Total &gt; 100% because some physicians are members of more than one PPO</b>	
Number of respondents = 102	
Number of non-responses=0	

The table shows that approximately 57.8 percent of the respondents accept Blue Cross health insurance scheme. In contrast, only 7.8 percent of respondents indicated that they accept the National Health Fund.

F2 Sample: All respondents (242 of them) were asked the following question:

“For how long have you been practicing?”

The responses are summarised below in Table B-6.

**Table B-6 Practicing Experience**

<b>Experience</b>	<b>% of respondents</b>
< 1 yr.	3.5
1-2 yrs.	6.1
2-5 yrs.	17.9
5-10 yrs.	19.7
> 10 yrs.	52.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 229	
Number of non-responses = 13	

The table shows that the majority of respondents (52.8 percent) are seasoned physicians with more than 10 years experience practicing medicine. Only 3.5 percent are relatively inexperienced with less than one year's practice under their belts.

F3a Sample: All respondents (242 of them) were asked the following question:

“What is the average number of patients you see on a typical weekday (Mon. to Fri)?”

The responses were group and are tallied in Table B-7 below.

**Table B-7 Weekday Patient Traffic**

<b>Weekday patient traffic</b>	<b>% of respondents</b>
< 10	2.1
10-20	28.0
21-30	16.1
31-40	10.6
41-50	8.9
51-60	6.4
61-80	12.7
81-100	9.3
>100	5.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 236	
Number of non-responses = 6	

The table shows that more than half of the respondents (69.9 percent) treat in excess of 20 patients on a typical weekday. It should also be noted that 5.9 percent reported treating more than 100 patients in contrast to the 2.1 percent who reported that they treat less than 10 patients on a typical weekday.

F3b Sample: All respondents (242 of them) were asked the following question:

“Approximately how many prescriptions do you write on a weekday?”

The responses were group and tallied below in Table B-8.

**Table B-8 Number of Prescriptions Written on Weekdays**

<b>Weekday # of prescriptions written</b>	<b>% of respondents</b>
< 10	11.6
10-20	33.1
21-30	24.5
31-40	10.3
41-50	5.6
51-60	5.2
61-80	4.3
81-100	3.9
>100	1.7
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.2</b>
Number of respondents = 233	
Number of non-responses = 9	

The table shows that 69.2 percent of the respondents write less than thirty prescriptions on weekdays with another 1.7 percent who writes in excess of one hundred prescriptions.

F4a Sample: All respondents (242 of them) were asked the following question:

“What is the average number of patients you see on a typical weekend (Sat. and Sun)?”

The responses are summarised in Table B-9 below.

**Table B-9 Weekend Patient Traffic**

<b>Weekend patient traffic</b>	<b>% of respondents</b>
< 10	18.9
10-20	40.5
21-30	26.4
31-40	7.9
41-50	2.2
51-60	0.9
61-70	2.2
>70	0.9
<b>Total &lt; 100% due to errors in rounding</b>	<b>99.9</b>
Number of respondents = 227	
Number of non-responses = 15	



The table shows that less than half of the respondents (40.6 percent) treat in excess of 20 patients on weekends. Approximately 0.9 percent indicated that they treat more than 70 patients on weekends.

F4b Sample: All respondents (242 of them) were asked the following question:

“Approximately how many prescriptions do you write on a typical day of the weekend?”

The responses are summarised below in Table B-10.

**Table B-10 Number of Prescriptions Written on Weekends**

# of prescriptions written	% of respondents
< 5	13.8
5-10	34.4
11-15	16.5
16-20	14.7
21-25	7.3
26-30	5.5
31-40	4.1
>40	3.7
<b>Total</b>	<b>100.0</b>
Number of respondents = 218	
Number of non-responses = 24	

The table shows that 64.7 percent of the respondents write less than 15 prescriptions on weekends.

F5 Sample: All respondents (242 of them) were asked the following question:

“Approximately how many patients with long-term illnesses do you care for?”

The responses are summaries in Table B-11 below.

**Table B-11 Number of Patients under long-term Care**

# of patients with long-term illnesses	% of respondents
<10	30.9
10-20	27.1
21-30	8.2
31-40	4.8
41-50	6.3
51-60	3.9
61-70	0.0
>70	18.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 207	
Number of non-responses = 35	

The table shows that although 10.2 percent of respondents are treating more than 40 patients in need of long-term care, the majority of respondents have less than 20 patients with long-term illnesses.

Q1 Sample: All respondents (242 of them) were asked the following question:

“How do you currently receive information on new drugs?”

The responses are summarised in Table B-12 below.

**Table B-12 Sources of Information**

Different channels for information on new drugs	% of respondents
TV/radio/newspaper	24.4
Flyers/brochures	31.8
Seminars sponsored by manufacturers	83.1
Journals	66.9
Internet	43.4
Other	21.9
<b>Total &gt; 100% because respondents were allowed to select multiple responses</b>	
Number of respondents = 242	
Number of non-responses = 0	

The table shows that 83.1 percent of the respondents receive information on new drugs at seminars sponsored by the manufacturers of the drug. The next important channel of

information on new drugs is through Journals which reach approximately 66.9 percent of the respondents. The Internet is the third most popular means of channelling information on new drugs to physicians as 43.4 percent of them are supplied through this medium. Information on new drugs is channelled through mass media (TV/radio/newspaper) and flyers to 24.4 percent and 31.8 percent and 24.4 percent.

Q2a Sample: All respondents (242 of them) were asked the following question:

“Considering everything, would you say generic drugs are therapeutically equivalent to innovator drugs?”

The responses are summarised in Table B-13 below.

**Table B-13 Physician Perception of the Therapeutic Equivalence of Generics**

<b>Are generics therapeutically equivalent?</b>	<b>% of respondents</b>
Yes	45.0
No	25.2
Depends on various factors	29.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 238	
Number of non-responses = 4	

The table shows that 45.0 percent of the respondents unequivocally indicated that generic drugs are therapeutically equivalent to innovator drugs. In contrast 25.2 respondents do not share a similar opinion. The table also shows that 29.8 percent chose the middle ground and indicate that the therapeutic equivalence of generic drugs depends on various factors.

Q2b Sample: Only respondents (72 of them) who indicated in question q2a that their answer depends on various factors were asked the following question:

“What are these factors?”

The responses are summarised and presented below in Table B-14.

**Table B-14 Factors Influencing Therapeutic Equivalence of Generics**

<b>Factors influencing therapeutic equivalence of generic drugs</b>	<b>% of respondents</b>
Ailment being treated	3.2
Drug availability	1.6
Expedients used in the manufacturing process	19.4
Reputation of the manufacturer	33.9
Drugs with Narrow Therapeutic Index (NTI)	3.2
Patients' perceptions	1.6
The effectiveness/ quality of generic drugs	25.8
Other	11.3
<b>Total</b>	<b>100.0</b>
Number of respondents = 62	
Number of non-responses = 10	

The table shows that the reputation of the manufacturer and the expedients used in the manufacturing process are among the crucial factors cited by 53.3 percent of the respondents as influencing whether generics are therapeutically equivalent to innovator medication.

Q3 Sample: All respondents (242 of them) were asked the following question:

“Compared to the price of an innovator drug, how would you rate the difference in price for a generic drug?”

The responses are summarised in Table B-15 below.

**Table B-15 Physicians' Perception of the Relative Price of Generics**

<b>Relative price of generic drugs</b>	<b>% of respondents</b>
A lot less expensive	50.4
A little less expensive	36.4
About the same	3.4
A little more expensive	5.5
A lot more expensive	4.2
<b>Total &lt; 100% due to errors in rounding</b>	<b>99.9</b>
Number of respondents = 236	
Number of non-responses = 6	

The table shows that 86.8 percent of the respondents are aware that generic medication is less expensive than innovator medication with 50.2 indicating that they think generic

medication are a lot less expensive. Inexplicably, 9.7 percent think that generic medication is more expensive than innovator medication.

Q4 Sample: All respondents (242 of them) were asked the following question:

“Are you aware of generic drugs being available for the following ailments?”

The responses are summarised in Table B-16 below.

**Table B-16 Physician Awareness of Generic Availability for Selected Ailments**

<b>Ailment</b>	<b>% of respondents aware of generic medication to treat respective ailment</b>
Arthritis	94.6
Asthma	90.9
High cholesterol	73.6
Diabetes	90.1
Hypertension	89.3
Other	28.5
Number of respondents = 242	
Number of non-responses = 0	

The table shows that at least 89.3 percent of the respondents are aware of the availability of generic drugs which are used to treat arthritis, asthma, diabetes and hypertension. Only 73.6 percent indicated that they are aware of the availability of generic drugs used to treat high cholesterol.

Q6a Sample: All respondents (242 of them) were asked the following question:

“Do you think there is a need to increase the awareness of generic prescription drugs in Jamaica?”

The responses are summarised in Table B-17 below.

**Table B-17 The Need for Greater Awareness of Generic Medication**

<b>Need for greater awareness of generic prescription?</b>	<b>% of respondents</b>
Yes	61.6
No	38.4
<b>Total</b>	<b>100.0</b>
Number of respondents = 242	
Number of non-responses = 0	

The table shows that 61.6 percent think that there is a need for greater awareness of generic prescription drugs in Jamaica.

Q6b Sample: Only respondents (149 of them) who indicated in question q6a that there is a need for greater awareness of generic drugs were asked the following open-ended question:

“What could be done to better increase the awareness of generic prescription drugs?”

The results are summarised below in Table B-18.

**Table B-18 Strategies for Increasing Awareness of Generics**

<b>Strategies for Increasing Awareness</b>	<b>% of respondents</b>
Utilise Mass Media (newspaper, radio, television)	64.0
Public Education Programs/ Workshops	13.2
Seminars for Patients	5.9
Seminars by Manufacturers	21.3
Greater use of Drug Representatives	5.9
Other	11.0
<b>Total &gt; 100% because respondents were allowed to offer multiple strategies.</b>	
Number of respondents = 136	
Number of non-responses = 13	

The table shows that the majority of respondents (64.0 percent) think that a greater awareness of generic medication could be had through greater utilisation of mass media. Also, 21.3 percent believes that drug manufacturers should be encouraged to hold more seminars to facilitate greater awareness of generic medication.

Q7a Sample: All respondents (242 of them) were asked the following question:

“What would be your preferred source for more information on prescription drugs?”

Respondents were allowed to select multiple options. The responses are summarised in Table B-19 below.

**Table B-19 Preferred Sources of Information for Physicians**

<b>Preferred source for information on prescription drugs</b>	<b>% of respondents</b>
TV/ radio/ newspaper ads	38.4
Flyers/ brochures/ magazine	38.4
Medical journal	57.4
Medical books/ texts	19.4
Seminars held by Manufacturers	66.9
Other	22.6
<b>Total &gt;100% because respondents were allowed to select multiple sources of information</b>	
Number of respondents = 242	
Number of non-responses = 0	

The table shows that ‘seminars held by manufacturers’ are preferred by more respondents as a source of information than any of the other sources listed in the table. It indicates that 66.9 percent of respondents selected manufacturer’s seminars as a preferred source of information compared to some 57.4 percent of respondents who prefers ‘medical books’. The next most popular sources are ‘flyers/ brochures/ magazines’ and ‘TV/radio/newspaper ads’ which are each selected by 38.4 percent of the respondents. Approximately 22.6 percent indicated they prefer sources other than those listed in the question. A distribution of these other sources is presented in Table B-20 below.

**Table B-20 Other Preferred Sources of Information for Physicians**

<b>Other sources of information</b>	<b>% of respondents</b>
Books	1.7
Medical Detailing	23.7
DVD for Doctors	15.3
Internet	49.2
Journals	1.7
Lecturers by medical and Government Officials	3.4
Posters in Pharmacies	1.7
Other	3.4
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>
Number of respondents = 59	
Number of non-responses = 0	

The table shows that the Internet, medical detailing by drug representatives and medical DVDs rank among the more preferred sources of information for physicians.



Q8a Sample: All respondents (242 of them) were asked the following question:

“Please rank the following sources of medical information for physicians in order of credibility. Where 1 is the most believable, 2 is second most believable, and so on”

The results are summarized in Table B-21 below.

**Table B-21 Top Sources of Credible Information for Physicians**

<b>Physician's Credibility Rankings of source</b>	<b>% of respondents</b>	<b>Number of respondents</b>	<b>Number of non-responses</b>
<i>Panel A: Top ranking</i>			
Other physicians	28.3	226	16
Pharmacist	5.9	222	20
Ministry of Health	4.5	219	23
Drug Representative	12.5	224	18
Internet	3.6	222	20
Journals	29.6	223	19
Manufacturers	17.1	222	20
<i>Panel B: Top Two Ranking</i>			
Other physicians	48.2	226	16
Pharmacist	27.5	222	20
Ministry of Health	11.9	219	23
Drug Representative	25.0	224	18
Internet	9.0	222	20
Journals	45.3	223	19
Manufacturers	37.8	222	20
<i>Panel C: Top Three Ranking</i>			
Other physicians	67.3	226	16
Pharmacist	36.5	222	20
Ministry of Health	33.3	219	23
Drug Representative	45.1	224	18
Internet	14.4	222	20
Journals	58.3	223	19
Manufacturers	50.9	222	20

The table shows that physicians think that manufacturers/ drug representatives are the most credible sources of medical information. Other highly regarded sources are Journals and other physicians.

Q8b Sample: All respondents (242 of them) were given the following instruction:

“Please rank the following sources of medical information for patients in order of credibility. Where 1 is the most believable, 2 is second most believable, and so on”

The results are summarized in Table B-22 below.

**Table B-22 Perception of Top Sources of Credible Information for Consumers**

<b>Patient's Credibility Rankings of source</b>	<b>% of respondents</b>	<b>Number of respondents</b>	<b>Number of non-responses</b>
<i>Panel A: Top ranking</i>			
Physicians	43.8	217	25
Pharmacist	6.0	217	25
Ministry of Health	8.9	214	28
Family/ friends	7.2	195	47
Drug Representative	7.6	211	31
Internet	2.3	215	27
Journals	11.8	211	31
Manufacturers	14.2	211	31
<i>Panel B: Top Two Ranking</i>			
Physicians	62.7	217	25
Pharmacist	41.5	217	25
Ministry of Health	18.2	214	28
Family/ friends	11.8	195	47
Drug Representative	15.2	211	31
Internet	9.3	215	27
Journals	20.9	211	31
Manufacturers	25.1	211	31
<i>Panel C: Top Three Ranking</i>			
Physicians	79.7	217	25
Pharmacist	57.6	217	25
Ministry of Health	33.6	214	28
Family/ friends	3.6	195	47
Drug Representative	26.1	211	31
Internet	17.7	215	27
Journals	31.8	211	31
Manufacturers	37.0	211	31

Table B-22 above shows that most of the respondents believe that physicians/pharmacists are regarded by their patients/customers to be the most credible sources of medical information.

Q9a Sample: All respondents (242 of them) were asked the following question:

“Out of every ten prescriptions you write, what is the ratio of innovator to generic prescriptions?”

The results are summarised in the Table B-23 below.

**Table B-23 Incidence of Generic  $\mathcal{R}$  Prescribed**

<b># of generic medication out of every ten prescriptions</b>	<b>% of respondents</b>
Zero	0.4
One	4.4
Two	8.7
Three	18.8
Four	17.0
Five	16.6
Six	14.4
Seven	7.4
Eight	8.7
Nine	3.1
Ten	0.4
<b>Total &lt; 100% due to errors in rounding</b>	<b>99.9</b>
Number of respondents = 229	
Number of non-responses = 13	

The median number of generic prescriptions written is five. This means that respondents, on average, prescribe generic drugs as often as innovator drugs.

Q9b Sample: Respondents (191 of them) who prescribed one type of medication more often than the other were asked the following question:

“What is the main reason for prescribing \_\_\_\_\_ more often?”

The results are summarised in Table B-24 below.

**Table B-24 Main Reasons for Prescribing Generic/Innovator more often**

<b>Main reasons...</b>	<b>% of respondents</b>
<i>...for prescribing generic medication more often</i>	
Availability	4.2
Effectiveness	16.9
Affordability	76.1
Other	2.8
Total	100.0
Number of respondents =112	
Number of non-responses =1	
<i>... for prescribing innovator medication more often</i>	
Availability	25.0
Effectiveness	31.3
Affordability	7.1
Reputation of Manufacturer	2.7
Familiarity/ Tradition	32.1
Other	1.8
Total	100.0
Number of respondents = 71	
Number of non-responses = 7	

Table B-24 shows that among physicians who prescribe generic medication more often than they prescribe innovator medication, 76.1 percent indicated that the ‘affordability’ of generic medication is the main reason for this tendency; another 16.9 percent attributes this tendency to the effectiveness of generic medication.

Contrastingly, among physicians who prescribe innovator medication more often than generic medication, the main reasons for this tendency is attributable to the physicians’ familiarity with innovator drugs (32.1 percent), the effectiveness of innovator medication (31.3 percent) and the availability of innovator medication (25.0 percent).

Q10 Sample: All respondents (242 of them) were asked the following question:

“List the top three (3) influences on the type of drug, generic or innovator, you prescribe where ‘1’ represents the greatest influence.”

The results are summarised below in Table B-25.

**Table B-25 Top Three Influences on types of Rx Physicians Prescribe**

<b>Influence on type of drug prescribed</b>	<b>% of respondents</b>
Advertisement	3.0
Doctor/ Nurse recommended	16.3
Incentives provided by manufacturer	2.3
Health insurance coverage of patient	8.1
Newness/ innovativeness of drug	2.7
Patient’s request	4.4
Pharmacist recommended	4.8
Price of the drug	23.5
Reputation of the drug	24.8
Traditional/ it is what I always prescribe	8.5
Other	1.6
<b>Total</b>	<b>100.0</b>
Number of respondents = 240	
Number of non-responses = 2	

The table shows that the (i) price of a drug and (ii) reputation of its manufacturer, are among the top influences on the type of drugs prescribed by 48.3 percent of physicians.

Q11 Sample: All respondents (242 of them) were asked the following question:

“What class used to treat [*read each ailment*] would you not be willing to have substituted by an available generic?”

The results are presented below in Table B-26.

**Table B-26 Unwillingness of Physicians to support generic substitution by Ailment**

	% of respondents against generic substitution	Number of respondents	Number of non-responses
Panel A: Classes of drugs used to treat Arthritis			
Non-steroidal anti-inflammatory drugs	31.1	235	7
Disease-modifying anti rheumatic drugs	40.8	240	2
Corticosteroids	17.5	240	2
None of the above	30.8	240	2
Total > 100% because respondents are allowed to select multiple options			
Panel B: Classes of drugs used to treat Asthma			
Steroids: short-term controllers	37.9	240	2
Steroids: long-term controllers	40.8	240	2
None of the above	39.2	240	2
Total > 100% because respondents are allowed to select multiple options			
Panel C: Classes of drugs used to treat High Cholesterol			
HMG CoA reductase inhibitors (statins)	34.6	240	2
Bile acid sequestrants	13.3	240	2
Nicotinic acid	14.2	239	3
Fibric acid	3.8	240	2
None of the above	52.9	240	2
Total > 100% because respondents are allowed to select multiple options			
Panel D: Classes of drugs used to treat Diabetes			
Sulfonylurea	21.3	240	2
Thiazolidineiones	20.4	240	2
Biguanides	20.8	240	2
Alpha-glucosidase inhibitors	9.6	240	2
Insulin	42.1	240	2
None of the above	37.9	240	2
Total > 100% because respondents are allowed to select multiple options			
Panel E: Classes of drugs used to treat Hypertension			
Beta blockers	39.6	240	2
Calcium channel blockers	34.2	240	2
ACE Inhibitors	37.5	240	2
Vasodilators	15.1	240	2
Diuretics	18.8	240	2
None of the above	45.8	240	2
Total > 100% because respondents are allowed to select multiple options			

Panel A summarizes the responses for classes of drugs used to treat arthritis. It indicates that 40.8 percent of the 240 physicians who responded to this question are not willing to

have generic substitution for the class of disease-modifying anti-rheumatic drugs. This is in comparison to the 17.5 percent who indicated that they are not willing to have generic substitution for corticosteroids. The line item 'none of the above' indicates the number of respondents who are willing to have generic substitution for any class of drugs used to treat the particular ailment. For instance, the table indicates that 30.8 percent of the 241 respondents are willing to have generic substitution for any class of drugs used to treat arthritis.

Q12 Sample: All respondents (242 of them) were asked the following question?

“Do you believe consumers are currently getting good quality drugs at reasonable prices?”

The results are summarised below in Table B-27.

**Table B-27 Physicians' Perception of Quality and Price of Rx**

<b>Are consumers getting good quality drugs at reasonable prices?</b>	<b>% of respondents</b>
Yes	38.8
No	61.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 232	
Number of non-responses = 10	

The table shows that 38.8 percent of respondents believe that consumers are getting good quality drugs at reasonable prices.

Q13b Sample: All respondents (232 of them) to question q12 were asked the following open-ended question: “Why/ Why not?”

[It follows up on responses given for question q12.] The responses are summarised below in Table B-28.

**Table B-28 Main Reasons for Physicians' Perception of Quality and Price of Rx**

<b>Main Reasons...</b>	<b>% of respondents</b>
<i>...consumers are getting good quality drugs at reasonable prices</i>	
NHF/JADEP and other insurance programs	23.4
Patients' Feedback/ Personal Observations	15.6
Widespread availability of Generics	31.3
Low drug prices	9.4
Quality control by sector regulators	6.3
Competitive environment	9.4
Other	4.7
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.1</b>
Number of respondents = 64	
Number of non-responses = 26	
<i>...consumers are NOT getting good quality drugs at reasonable prices</i>	
Patients' feedback/ Personal observations	5.7
Widespread availability of generics	4.1
High tax	18.7
High mark-ups	33.3
High drug prices	33.3
Competitive environment	2.4
Other	2.4
<b>Total &lt; 100% due to errors in rounding</b>	<b>99.9</b>
Number of responses = 123	
Number of non-responses = 19	

The table above shows that among physicians who think that consumers are getting good quality drugs at reasonable prices, 31.3 percent attribute this opinion to the widespread availability of generic drugs in Jamaica. Another 23.4 percent indicated that the availability of JADEP, NHF and health insurance programs from private enterprises was the main reason for holding the opinion. It is also evident in Table B-28 that among physicians who do not think that consumers are not getting good quality drugs at reasonable prices, 85.3 percent maintains this view because they think that the prices of drugs are unreasonably high. The total comprises 18.7 percent who are of the opinion that the high prices are due to high level of taxes imposed on drugs and 33.3 percent think that the high prices are a direct result of high mark-ups by wholesalers and or retailers of prescription medication.



Q14 Sample: All respondents (242 of them) were asked the following question:

*“Are you restricted by any formulary? By definition, a formulary is a list of the most commonly prescribed medications that have been selected by physicians, pharmacists and other health care professionals on the basis of their effectiveness and cost”*

The results are summarised below in Table B-29.

**Table B-29 Are Physicians Restricted by Formularies?**

<b>Are you restricted by formularies?</b>	<b>% of respondents</b>
Yes	28.3
No	71.8
<b>Total</b>	<b>100.1</b>
Number of respondents = 223	
Number of non-responses = 19	

The table shows that 28.3 percent of the respondents are restricted by formularies.

Q15 Sample: Only respondents (63 of them) who indicated in question q14 that they are being restricted by formularies were asked the following question:

*“How frequently is this list updated?”*

The responses are summarised below in Table B-30.

**Table B-30 Frequency in which Formulary is Updated**

<b>Frequency of updates</b>	<b>% of respondents</b>
More than once every 2 wks.	1.6
Once every 2-3 wks.	1.6
Once per month	4.8
Every 2-4 months	1.6
Every 5-6 months	1.6
Every 7-11 months	7.9
Once per year or less often	30.2
I have no idea	50.8
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.1</b>
Number of responses = 63	
Number of non-responses = 0	

The table above shows that 30.2 percent of physicians who were restricted by formularies indicate that the list is not updated more than once per year; another 50.8 percent indicated that they have no idea how often the list is updated.

Q16 Sample: Only respondents (63 of them) who indicated in question q14 that they are being restricted by formularies were asked the following question:

“Have you ever felt it necessary to prescribe a drug which was not on the list but would be more appropriate?”

The responses are summarised below in Table B-31.

**Table B-31 Are off-listed  $R_x$  more appropriate?**

<b>Frequency in which off-listed drugs are more appropriate</b>	<b>% of respondents</b>
Always	3.2
Often	27.4
Sometimes	56.5
Seldom	12.9
Never	0.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 62	
Number of non-responses = 1	

The table shows that 30.6 either ‘often’ or ‘always’ feel it necessary to prescribe a drug that is not on the list but which they consider to be more appropriate. Another 56.2 percent ‘sometimes’ feel it necessary to do so. The remaining 12.9 percent of respondents ‘seldom’ feels it necessary.

Q17 Sample: All respondents (242 of them) were asked the following question:

“We are interested in learning about your evaluation of the use of generic prescription products. Please select the option that BEST represents your position to each of the statements I am about to read to you.” The statements are:

Statement a: “In order to keep patients, I have to support generic substitution”

Statement b: “The price difference between generic and innovator products is often so great; I feel I must offer patients products with generic substitution”

Statement c: “All generics that are rated as bioequivalent can be considered therapeutically equivalent with the innovator products”

Statement d: “There is no real difference between most innovator products and their generic equivalents”

Statement e: “I willingly support generic substitution for innovator prescription products”

Statement f: “I generally prescribe the innovator and leave it to the pharmacist to discuss the generic alternatives”

Statement g: “In order to keep patients, I have to provide innovator drugs”

Statement h: “I regularly discuss the difference between generic and innovator drugs with my patients”

The results are presented in Table B-32 and Table B-33 below.

**Table B-32 Physicians' Attitudes towards Generic Rx Part I**

	<b>% of respondents</b>
<i>Response to Statement a</i>	
Strongly agree	1.7
Agree	24.5
Neither agree nor disagree	27.4
Disagree	29.5
Strongly disagree	16.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 237	
Number of non-responses = 5	
<i>Response to Statement b</i>	
Strongly agree	12.1
Agree	48.3
Neither agree nor disagree	21.1
Disagree	15.1
Strongly disagree	3.5
<b>Total</b>	<b>100.1</b>
Number of respondents = 232	
Number of non-responses = 10	
<i>Response to Statement c</i>	
Strongly agree	8.2
Agree	38.6
Neither agree nor disagree	23.6
Disagree	23.6
Strongly disagree	6.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 233	
Number of non-responses = 9	
<i>Response to Statement d</i>	
Strongly agree	7.3
Agree	28.9
Neither agree nor disagree	24.1
Disagree	31.5
Strongly disagree	8.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 232	
Number of non-responses = 10	

Table B-32 above shows that at least a quarter of respondents agree with the opinions expressed in statements (a) through (d). Consensus of opinion is greatest among

physicians regarding the sentiments expressed in statement (b) as 60.4 percent agree that bioequivalence is synonymous with therapeutic equivalence.

Table B-33 below summarises the responses to statements (e) through (h).

**Table B-33 Physicians' Attitudes towards Generic Rx Part II**

	% of respondents
<i>Response to Statement e</i>	
Strongly agree	14.5
Agree	54.0
Neither agree nor disagree	18.7
Disagree	10.6
Strongly disagree	2.1
<b>Total &lt; 100% due to errors in rounding</b>	<b>99.9</b>
Number of respondents = 235	
Number of non-responses = 7	
<i>Response to Statement f</i>	
Strongly agree	9.4
Agree	18.8
Neither agree nor disagree	20.5
Disagree	36.8
Strongly disagree	14.5
<b>Total</b>	<b>100.0</b>
Number of respondents = 234	
Number of non-responses 8	
<i>Response to Statement g</i>	
Strongly agree	3.0
Agree	13.2
Neither agree nor disagree	18.7
Disagree	43.0
Strongly disagree	22.1
<b>Total</b>	<b>100.0</b>
Number of respondents = 235	
Number of non-responses = 7	
<i>Response to Statement h</i>	
Strongly agree	8.5
Agree	37.9
Neither agree nor disagree	24.3
Disagree	24.3
Strongly disagree	5.1
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.1</b>
Number of respondents = 235	
Number of non-responses = 7	

Table B-33 above shows that 68.5 percent willingly support generic substitution (statement e) while 16.2 percent believe they have to provide innovator drugs to keep their patients (statement g).

Q18a Sample: All respondents (242 of them) were asked the following question:

“Do you have any association with any of the following?”

The results are summarised below in Table B-34.

**Table B-34 Business Relationships of Physicians by distribution level**

<b>Do you have any association with any of the following?</b>	<b>Number of relationships*</b>
Manufacturers	3
Wholesalers	3
Importers	3
Other	4
<b>Total</b>	<b>13</b>
Number of respondents = 240	
Number of non-responses = 2	

\*Note: The number of relationships is greater than the number of physicians which have these relationships to the extent that a physician may have relationships with multiple players. In fact the thirteen (13) relationships highlighted in Table B-34 relate to six (6) physicians.

The table above shows that few respondents have any association with other players in the industry. Three physicians indicated that they have an association with manufacturers of pharmaceutical products. A similar number of respondents indicated that they are associated with wholesalers. There are three respondents who are associated with importers; and another four respondents are associated with other market players in the industry. The nature of the associations is explored in question q18b.

Q18b Sample: Only respondents (6 of them) who indicated in question q18a that they were associated with other market players were asked the following question:

“Could you briefly describe the nature of the relationship?”

The results are summarised below in Table B-35.

**Table B-35 Description of Business Relationships**

Distribution level	Nature of Business Relationships			Number of non-responses
	Owner	Spouse/relative	Other (specify)	
Manufacturer	1			2
Wholesalers		1		2
Importers	1	1	1 (“business relationship”)	0
Other		1	1	2
Number of respondents = 2				
Number of non-responses = 4				

The table shows that only two of the six respondents describe their relationships with other market players. An examination of the table reveals that one physician is vertically integrated with a manufacturer and one physician has a spouse/ relative who is wholesaler. The data also show that one physician is vertically integrated with an importer and has a “business” relationship with another importer.

Q19 Sample: All respondents (242 of them) were asked the following question:

“Before writing a prescription, do you ask the patient if they are covered by health insurance?”

The results are summarised in Table B-36 below.



**Table B-36 Does Health Insurance Status Influence the Rx Prescribed**

	<b>% of respondents</b>
Always	15.4
Often	29.6
Sometimes	33.8
Seldom	14.2
Never	7.1
<b>Total</b>	<b>100.1</b>
Number of respondents = 240	
Number of non-respondents = 2	

The table shows that 15.4 percent of physicians routinely inquire about their patients' health insurance coverage prior to writing a prescription. Another 29.6 percent 'often' do the same. The table also shows that 14.2 percent seldom ask patients about their health insurance coverage and 7.1 percent indicate that they never engage their patients in such a dialogue.

Q20 Sample: All respondents (242 of them) were asked the following question:

“In your practice, what would [you] say is the percentage breakdown for each of the following: [Note: % must add to 100]”<sup>42</sup>

The responses are summarised in Table B-37 through Table B-39 below.

**Table B-37 Health Insurance Coverage of Patients: Part I**

<b>% of patients with no health insurance coverage</b>	<b>% of respondents</b>
0-20	10.9
21-40	31.4
41-60	35.0
61-80	18.6
81-90	2.7
91-100	1.4
<b>Total</b>	<b>100.0</b>
Number of respondents = 220	
Number of non-responses = 22	

<sup>42</sup> To the extent that consumers can hold NHF and private insurance cards simultaneously, the instruction that “% must add to 100” was wrong and is likely to have biased responses to this question.

The data presented in Table D-37 above indicate that 1.4 percent of physicians have practices at which at least ninety percent of the patients are not covered by any health insurance. A total 57.7 percent indicated that at least forty percent of their patients are without health insurance coverage. In contrast, approximately 10.9 percent indicated that less than twenty percent of their patients were uninsured.

**Table B-38 Health Insurance Coverage of Patients: Part II**

<b>% of Patients covered by NHF</b>	<b>% of respondents</b>
0-10	21.5
11-20	28.8
21-30	18.7
31-40	11.9
41-50	6.4
51-60	5.5
61-80	7.3
81-100	0.0
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.1</b>
Number of respondents = 219	
Number of non-responses = 23	

Table B-38 above reveals that when physicians were asked about the percentage of patients covered by the Government's health insurance scheme, the NHF, 50.3 percent of the physicians indicated that fewer than twenty percent of their patients were covered and 87.3 percent report that at most fifty percent of their patients are covered. None of the physicians reported that more than eighty percent of their patients are covered by the NHF.

**Table B-39 Health Insurance Coverage of Patients: Part III**

<b>% of patients covered by the private sector insurance</b>	<b>% of respondents</b>
0-10	35.0
11-20	24.6
21-30	15.5
31-40	7.3
41-50	6.8
51-60	4.1
61-80	6.8
81-100	0.0
<b>Total &gt;100% due to error in rounding</b>	<b>100.1</b>
Number of respondents = 220	
Number of non-responses = 22	

With regard to health insurance coverage under any private sector plan, Table B-39 shows that 59.6 percent reported that no more than twenty percent of their patients are covered by a health insurance operated by a private sector enterprise. None of the physicians reported that more than eighty percent of their patients are covered under any private sector insurance.

Q21a Sample: All respondents (242 of them) were asked the following question:

“When you patients visit you, do they ask for a specific type drug, innovator or generic?”

The results are summarised in Table B-40 below.

**Table B-40 Do Consumers Request Specific types of Rx?**

<b>Do patients request specific type of drug?</b>	<b>% of respondents</b>
Yes	26.2
No	73.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 237	
Number of non-responses = 5	

The table shows that the patients of 26.2 percent usually ask for a specific type of drug. Question q21b explores which type is requested more often.

Q21b Sample: Only respondents (62 of them) who indicated in question q21a that their patients usually request specific types of drugs were asked the following question:

“Which [type of drug] do they ask for more often?”

The results are summarised below in Table B-41.

**Table B-41 Which Types of Rx is Requested More Often by Consumers?**

Which type of drug is requested more often?	% of respondents
Innovator	51.7
Generic	48.3
<b>Total</b>	<b>100.0</b>
Number of respondents = 58	
Number of non-responses = 4	

The table shows that the patients of 51.7 percent of the respondents request innovator drugs more often than they request generic drugs.

Q22a Sample: Only respondents (62 of them) who indicated in question q21a that their patients usually request specific types of drugs were asked the following question:

“Out of every ten patients [that] you see, on average how many would you say ask for a specific drug?”

The results are summarised below in Table B-42.

**Table B-42 Incidence of Consumer Requests for Specific Types of Rx**

# out of 10 patients who request specific type of drug	% of respondents
One	9.8
Two	19.7
Three	26.2
Four	23.0
Five	11.5
Six	8.2
Seven	0.0
Eight	0.0
Nine	0.0
Ten	1.6
<b>Total</b>	<b>100.0</b>
Number of respondents = 61	
Number of non-responses 1	

The table shows that one out of every ten patients of 9.8 percent of respondents request specific types of drug. Also, 45.9 percent of the respondents reports that two or three out of every ten patients make specific requests for drugs.

Q22b Sample: Only respondents (62 of them) who indicated in question q21a that their patients usually request specific types of drugs were asked the following question:  
 “And out of this total, on how often would you say [that] you facilitate this request?”

The responses are summarised below in Table B-43.

**Table B-43 Extent to which Physicians Facilitates Requests**

# out of 10 patients who requests specific type of drug [A]	Average # of requests granted [B]	% of respondents $[B \div A] \times 100$
1	1	100.0
2	1.8	87.5
3	2.2	73.3
4	2.3	57.1
5	4.1	82.9
6	2.8	46.7
7	0.0	0.0
8	0.0	0.0
9	0.0	0.0
10	6.0	60.0
Number of respondents = 61		
Number of non-responses 1		

The table above shows that physicians tend to facilitate a greater proportion of requests, the fewer the number of requests made.

Q23 Sample: All respondents (242 of them) were asked the following question:

“Are you aware of Government regulation encouraging generic substitution of pharmaceuticals?”

The results are summarised below in Table B-44.

**Table B-44 Awareness of Govt Regulations Encouraging Generic Substitution**

<b>Are you aware of Government regulation encouraging generic substitution?</b>	<b>% of respondents</b>
Yes	53.4
No	46.6
<b>Total</b>	<b>100.0</b>
Number of respondents = 238	
Number of non-responses 4	

The table shows that 53.4 percent are aware of regulation encouraging generic substitution.

Q24 Sample: All respondents (242 of them) were asked the following question:

“Are you aware of Government establishing the HCL?”

The responses are summarised in Table B-45 below.

**Table B-45 Awareness of the link between the Govt and HCL**

<b>Are you aware of Government establishing the HCL?</b>	<b>% of respondents</b>
Yes	62.1
No	37.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 235	
Number of non-responses 7	

The table shows that 62.1 percent are aware that the Government established the HCL.

Q25 Sample: All respondents (242 of them) were asked the following question:

“Would you say that over the period in which you have been practicing medicine in Jamaica, a greater number of consumers have been able to buy prescription drugs at more reasonable prices?”

The responses are summarised below in Table B-46.

**Table B-46 Physicians' Opinion on Trend in Patients' access to Cheaper Rx**

<b>Have more consumers been able to access more reasonably priced prescription drugs?</b>	<b>% of respondents</b>
Yes	62.9
No	37.1
<b>Total</b>	<b>100.0</b>
Number of respondents = 229	
Number of non-responses 13	

The table shows that 62.9 percent believe that more consumers have been able to access more reasonably priced prescription drugs.

Q26 Sample: All respondents (242 of them) were asked the following question?

“Please select that one of the following: ‘Over the period [that] I have been practicing medicine in Jamaica, I have seen \_\_\_\_\_ in the difference in the effectiveness of prescription drugs being distributed in Jamaica?’” Five options are presented to the respondents from which only one could be selected.

The results are summarised in Table B-47 below.

**Table B-47 Physicians' Perception of Trends in Effectiveness of Rx**

<b>The effectiveness of prescription drugs</b>	<b>% of respondents</b>
A considerable improvement	31.3
A slight improvement	40.3
No difference	25.3
A slight decline	2.6
A significant decline	0.4
<b>Total &lt; 100 % due to errors in rounding</b>	<b>99.9</b>
Number of respondents	
Number of non-responses	

The table shows that 71.6 percent observed at least a slight improvement in the effectiveness of prescription drugs during the period in which they have been practicing medicine; approximately 31.3 percent believe that the improvement is ‘considerable’. Contrastingly, 3.0 percent believe that there has been a decline in the effectiveness of

prescription drugs. The remaining 25.3 percent have not observed any change in the effectiveness of prescription drugs.

Q27a Sample: All respondents (242 of them) were asked the following question?

“If the Government or Ministry of Health were to conduct seminars geared at increasing the awareness of generic drugs, how interested would you be in attending?”

Five options are presented to the respondents from which only one could be selected. The results are presented below in Table B-48.

**Table B-48 Physicians’ Interest in Attending Govt Seminar on Generic R**

<b>Interests in attending Government seminar on generic drugs</b>	<b>% of respondents</b>
Very interested	32.0
Somewhat interested	39.4
Neither interested nor uninterested	20.4
Somewhat uninterested	4.3
Very uninterested	3.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 231	
Number of non-responses = 11	

The results summarized in the table show that 71.4 percent of respondents are interested in attending a seminar aimed at increasing the awareness of generic drugs with 39.4 percent indicating that they are ‘very interested’. This is in contrast to the 8.2 percent who are not interested in attending the seminar. The main reasons offered by these respondents for their expressed lack of interest in attending the seminar are explored in question q27b.

Q27b Sample: Only respondents (66 of them) who indicate in question q27a that they are either indifferent or not interested in attending a seminar on *generic* medication were asked the following open-ended question:

“Why [would you] not [be interested in attending the seminar]?”

The responses were grouped and are summarized below in Table B-49.



**Table B-49 Main Reason For Lack of Interest in Govt. Seminar on Generics**

<b>Reasons for not being interested in attending the seminar</b>	<b>% of respondents</b>
Already aware/informed by Drug Representatives	15.0
Already informed	30.0
Busy schedule	12.5
Do not support generic drugs	2.5
Waste of time	5.0
Seminar will not make a difference	7.5
Other	27.5
<b>Total</b>	<b>100.0</b>
Number of respondents = 40	
Number of non-responses = 26	

The table above shows that 45.0 percent of the respondents who are not interested in attending a seminar on generic drugs explained that their lack of interest is due to them already being informed about the topic; 15.0 percent of these respondents indicated that they were informed about generics by drug representatives.

Q28a Sample: All respondents (242 of them) were asked the following question:

“If the Government or Ministry of Health were to conduct seminars geared at increasing the awareness of *innovator* drugs, how interested would you be in attending?”

The results are summarised below in Table B-50.

**Table B-50 Physicians’ Interest in Attending Govt Seminar on Innovator Rx**

<b>Interest in attending Government seminar on innovator drugs</b>	<b>% of respondents</b>
Very interested	34.2
Somewhat interested	37.7
Neither interested nor uninterested	21.1
Somewhat uninterested	5.3
Very uninterested	1.8
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>
Number of respondents = 228	
Number of non-responses 14	

The results in the Table indicate that 71.9 percent are interested in attending a seminar aimed at increasing the awareness of innovator drugs. Another 21.1 percent are indifferent between attending and not attending. The other 7.1 percent indicated that they are not interested in attending the seminar. The main reasons for their lack of interest are explored in question q28b.

Q28b Sample: Only respondents (64 of them) who indicated in question q28a that they are either indifferent or not interested in attending a seminar on *innovator* medication were asked the following open-ended question:

“Why [would you] not [be interested in attending the seminar]?”

The responses were grouped and are summarized below in Table B-51.

**Table B-51 Main Reason For Lack Of Interest in Govt. Seminar on Generics**

Reasons for not being interest in attending the seminar	% of respondents
Already aware/informed	22.0
Busy schedule	24.4
Informed through drug representatives	9.8
Drug representatives are more informed	2.4
Prefer other sources of information	7.3
Waste of time	22.0
Other	12.2
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>
Number of respondents = 41	
Number of non-responses = 23	

The table above shows that 46.4 percent of respondents who are not interested in attending the seminar because they either consider themselves to be already informed on the issue or have busy schedules.

Q29 Sample: Only respondents who indicate in question q28a that they are interested in attending a seminar on *innovator* medication (164 of them) were asked the following open-ended question:

“What category [of] speakers should they invite?”

The responses were grouped and are summarized below in Table B-52.

**Table B-52 Categories of Speakers to Invite to Seminars**

<b>Categories of Speakers to Invite</b>	<b>% of respondents</b>
Researchers with specialised knowledge	56.6
Manufacturers/ Drug Representatives	38.5
Physicians	25.2
Pharmacists	7.7
MoH	0.7
Experienced individuals	2.1
Unbiased individuals	1.4
Other	1.4
<b>Total &gt; 100 % because respondents are allowed to select multiple options.</b>	
Number of respondents = 143	
Number of non-responses 21	

The table above shows that a majority of the respondents would prefer to have research with specialised knowledge to speak at seminars.

## APPENDIX C. RESULTS OF RETAILER SURVEY

D1 Base: All respondents (36 of them) were asked the following question:

“To which age group do you belong?”

The responses are summarised below in Table C-1.

**Table C-1 Age Distribution of Pharmacists**

<b>Age Group</b>	<b>% of respondents</b>
< 25 yrs.	2.8
25-29	25.0
30-34	19.4
35-44	25.0
45-54	16.7
55-65	8.3
>65	2.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

The table shows that almost half of the respondents (47.2 percent) are below the age of 35 years. Another 41.7 percent are between the ages of 35 and 54 years while the remaining 11.1 percent are 55 years or older.

D2 Base: All respondents (36 of them) were asked the following question:

“How long have you been practicing as a pharmacist?”

The responses are summarised below in Table C-2.

**Table C-2 Experience of Pharmacists**

<b>Experience as pharmacist</b>	<b>% of respondents</b>
< 1 yr.	5.6
1-2 yrs.	0.0
2-5	27.8
5-10	19.4
>10	47.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. The table shows that 47.2 percent have been in practice for a period in excess of 10 years, some 47.2 percent for between two to ten years whilst the remaining 5.6 percent of the pharmacists have been in practice for less than one year.

D3 Base: All respondents (36 of them) were asked to indicate their gender:

The responses are summarised below in Table C-3.

**Table C-3 Gender Distribution**

<b>Gender</b>	<b>% of respondents</b>
Male	25.0
Female	75.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to the question. The table shows that females outnumber males in the sample by a ratio of three to one (3:1).

F1 Base: All respondents (36 of them) were asked the following question:

“Are you the owner of the pharmacy?”

The responses are summarised below in Table C-4.

**Table C-4 Distribution of Ownership of Pharmacy**

<b>Owner of pharmacy?</b>	<b>% of respondents</b>
Yes	33.3
No	66.7
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. The table shows that one-third of the respondents (33.3 percent) were owners of the pharmacy.

F2a Base: All respondents (36 of them) were asked to indicate the type of pharmacy:  
The responses are summarised below in Table C-5.

**Table C-5 Distribution of Pharmacy Type**

<b>Type of pharmacy</b>	<b>% of respondents</b>
Government/ public agency	2.8
Non-Government/ private outlet	97.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 persons responded to the question. The table shows that only one pharmacy (2.8 percent) is operated by the Government.

F2b Base: All respondents (36 of them) were asked the following question:

“How many years has this pharmacy been in business?”

The responses are summarised below in Table C-6.

**Table C-6 Years in Business**

<b>Years in Business</b>	<b>% of respondents</b>
< 1	8.3
1-2	11.1
2-5	5.6
5-10	19.4
>10	55.6
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 persons responded to this question. The table shows that more than half (55.6 percent) of the pharmacies had been in business for more than ten years with another 19.4 percent in business for between five and ten years. Only 8.3 percent of the pharmacies were opened for less than one year.

F3a Base: All respondents (36 of them) were asked the following question:

“Does this pharmacy have any affiliation/ business relationship with any of the following?”

The responses are summarised below in Table C-7.

**Table C-7 Business Affiliations of Pharmacies, by Entity**

<b>Business entity</b>	<b>Number of pharmacies affiliated with ...</b>	<b>% of respondents affiliated with ...</b>
...Manufacturer	1	2.8
...Wholesaler	3	8.3
...HMO	2	5.6
...Physician	4	11.1
...Other	0	0.0
Number of respondents = 36		
Number of non-responses = 0		

A total of 36 persons responded to this question. The table shows that the pharmacies were affiliated with manufacturers, wholesalers, HMOs and physicians. Specifically, one pharmacy indicated that they are affiliated with a manufacturer; three pharmacies are

affiliated with wholesalers; two pharmacies are affiliated with an HMO and four pharmacies are affiliated with physicians.

F3b Base: Only respondents (7 of them) who indicated in question that they have business relationship with business entities were asked the following question:

“Please describe the affiliation or business relationship”

The results are summarised below in Table C-8.

**Table C-8 Nature of Business Affiliation of Pharmacies by Entity**

<b>Business entity</b>	<b>Type of relationship with ...</b>	<b>Number of respondents</b>	<b>Number of non-responses</b>
...Manufacturer	Owner/ subsidiary	1	0
...Wholesaler	Owner/ subsidiary	2	1
...HMO	Belong to the same group	1	1
...Physician	Owner/ subsidiary	3	1

The table indicates that three pharmacies are vertically integrated with manufactures and wholesalers as they share an owner/subsidiary relationship. There are three pharmacists who indicate that they shared owner/subsidiary relationship with physicians. There is one respondent who indicated that he belongs to the same group of companies as an HMO.



F4a Base: All respondents (36 of them) were asked the following question:

“Are you a member of any Preferred Provider List (for instance the Life of Jamaica Preferred Provider Organization (PPO) scheme)?”

The responses are summarised below in Table C-9.

**Table C-9 Pharmacy Membership in PPOs**

<b>Member of any PPO?</b>	<b>% of respondents</b>
Yes	27.8
No	72.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to the question. The table shows that 27.8 percent of the respondents are members of preferred provider organizations with the other 72.2 percent indicating that they are not members of any PPO.

F5a Base: All respondents (36 of them) were asked the following question:

“Are you a member of any registered association?”

The responses are summarised below in Table C-10.

**Table C-10 Pharmacy Membership in Associations**

<b>Membership in registered association?</b>	<b>% of respondents</b>
Yes	77.8
No	22.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. The results in the table show that 77.8 percent are members of at least one registered association whilst 22.2 percent are not members of any Association.

F5b Base: Only respondents (28 of them) who indicated in question f5a that they are members of a registered association were asked the following question:

“Which [registered] association(s) [are you a member of]?”

The responses are summarised below in Table C-11.

**Table C-11 Distribution of Membership in Trade Association, by Association**

<b>Registered association</b>	<b>% of respondents</b>
Pharmaceutical Society of Jamaica (PSJ)	89.3
Pharmacy Council of Jamaica (PCJ)	21.4
Jamaica Association of Pharmacy Owners (JAPO)	3.6
Jamaica Chamber of Commerce (JCC)	3.6
Caribbean Pharmacy Association (CPA)	3.6
<b>Total &gt; 100 % because some respondents are members of more than one association</b>	
Number of respondents = 28	
Number of non-responses = 0	

The table shows that the Pharmaceutical Society of Jamaica (PSJ) is the most popular trade association among pharmacists with 89.3 percent (25) of the twenty eight respondents being members.

F5c Base: Only respondents who indicated in question f5a that they were members of a registered association (28 of them) were asked the following question:

“How many meetings does this association hold during a one-year period?”

The results are summarised below in Table C-12.

**Table C-12 Number of Meetings Held by Trade Association**

# of meeting held by association in 1 year	Number of Members				
	<i>PSJ</i>	<i>PCJ</i>	<i>JAPO</i>	<i>JCC</i>	<i>CPA</i>
One	1				1
Two	3				
Three	6	4	1		
Four	3	1			
Five	1				
Six	7			1	
Eight	1				
<b>Total</b>	<b>22</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>1</b>
Number of non-responses	3	1	0	0	0

A total of 28 pharmacists responded to this question. The table shows a variation in the number of meetings which members of the PSJ indicate are held in a one year period. Specifically, 7 members of the PSJ report that six meetings are held each year although another member reports that only one meeting is held in a year. Similar discrepancies are observed with the responses by members of the PCJ.

F5d Base: Only respondents (28 of them) who indicated in question f5a that they are members of a registered association were asked the following question:

“Does this association disseminate information on specific pharmacies?”

The results are summarised below in Table C-13.

**Table C-13 Dissemination of Information on Specific Pharmacies**

Is pharmacy-specific information disseminated?	% of respondents
Yes	25.0
No	75.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 28	
Number of non-responses = 0	

A total of 28 pharmacists responded to this question. The table shows that 25.0 percent (7) of the pharmacists indicated that information on specific pharmacies is disseminated by trade associations.

F5e Base: Only respondents (7 of them) who indicated in question f5d that information on specific pharmacies is disseminated by trade association were asked the following question:

“Is information on price and quantity of drugs from individual pharmacies available from this association?”

The results are summarised below in Table C-14.

**Table C-14 Dissemination of Price and Quantities sold by Individual Pharmacies**

<b>Is price or quantity data available?</b>	<b>Respondents</b>
Yes	2
No	5
<b>Total</b>	<b>7</b>
Number of respondents = 7	
Number of non-responses = 0	

A total of seven pharmacists responded to this question. The table shows that two pharmacies (28.6 percent) indicate that information on price and quantity from individual pharmacies is available from at least one of the trade associations.

F5f Base: Only respondents (28 of them) who indicated in question f5c that they are members of an Association were asked the following question:

“What other type of information is available from the Association?”

The results are summarised below in Table C-15.

**Table C-15 Type of Information Available from Trade Association**

<b>Type of information</b>	<b>% of respondents</b>
Information to assist pharmacists	76.9
Continuing Education Programs/ Seminars	53.8
Information on new drugs	42.3
Best practices for pharmacists	30.8
Other	15.4
<b>Total &gt; 100% because respondents offered multiple types of information</b>	
Number of respondents = 26	
Number of non-responses = 2	

A total of 26 pharmacists responded to this question. Approximately 76.9 percent of the respondents indicate that trade associations provide information which assist pharmacists. Some 30.8 percent of the respondents received information on ‘best practices’ through trade associations and 53.8 percent indicated trade associations hosted seminars and offered continuing education programs. Some 42.3 percent indicated that trade associations provide them with information on new drugs.

F6a Base: All respondents (36 of them) were asked the following question:

“Do you work during the week (Monday to Friday)?”

The results are summarised below in Table C-16.

**Table C-16 Weekdays Business Status**

<b>Do you work during the week?</b>	<b>% of respondents</b>
Yes	100.0
No	0.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses =0	

A total of 36 pharmacists responded to this question. The table shows that all respondents (100.0 percent) worked during the week.

F6b Base: All respondents (36 of them) were asked the following question:

“Approximately how many hours do you work per week?”

The results are summarised below in Table C-17.

**Table C-17 Weekday Business Hours**

<b>Hours worked per week</b>	<b>% of respondents</b>
6	2.8
30	2.8
35	2.8
38	2.8
40	44.4
41	2.8
42	2.8
43	2.8
45	2.8
48	5.6
50	8.3
52	5.6
54	2.8
55	2.8
60	5.6
72	2.8
<b>Total &gt; 100% due to errors in rounding</b>	<b>100.3</b>
Number of respondents = 36	
Number of non-responses 0	

A total of 36 pharmacists responded to this question. The table shows that 55.6 percent of the respondents work for no more than 40 hours during the week. The number of hours worked varied considerably with 2.8 percent respondents working for as few as 6 hours per week while 8.4 percent working for at least 60 hours per week.

F6c Base: Only respondents (36 of them) who indicated in question f6a that they work on weekdays were asked the following question:

“Approximately how many prescriptions do you dispense on a typical weekday (Monday to Friday) at this pharmacy?”

The results are summarised below in Table C-18.

**Table C-18 Number of Prescriptions Dispensed on a Weekday**

<b># of prescriptions dispensed on typical weekday</b>	<b>Number</b>	<b>% of respondents</b>
6	1	2.8
10	2	5.6
15	1	2.8
20	3	8.3
30	4	11.1
40	4	11.1
45	1	2.8
50	1	2.8
60	4	11.1
80	2	5.6
90	1	2.8
100	3	8.3
110	1	2.8
120	1	2.8
150	2	5.6
165	1	2.8
200	2	5.6
300	1	2.8
700	1	2.8
<b>Total</b>	<b>36</b>	<b>100.3</b>

A total of 36 pharmacists responded to this question. The table shows significant variation in prescription dispensed by the pharmacists on a typical weekday. On one end of the scale, one pharmacist dispense 6 prescriptions while at the other end of the scale, one pharmacist dispense 700 prescriptions.

F7a Base: All respondents (36 of them) were asked the following question:

“Do you work during the weekend (Saturday and/or Sundays)?”

The results are summarised below in Table C-19.

**Table C-19 Weekend Business Status**

<b>Do you work during the weekend (Saturday and/or Sundays)?</b>	<b>% of respondents</b>
Yes	83.3
No	16.7
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses 0	

A total of 36 pharmacists responded to this question. The table shows that 83.3 percent of the respondents work on the weekend.

F7b Base: Only respondents (30 of them) who indicated in question f7a that they worked on weekends were asked the following question:

“Approximately how many prescriptions do you dispense on a typical weekend?”

The results are summarised below in Table C-20.

**Table C-20 Weekend Business Hours**

<b>How many hours do you work per weekend</b>	<b>% of respondents</b>
5	3.3
6	13.3
8	6.7
9	13.3
10	20.0
11	6.7
12	23.3
13	6.7
15	3.3
17	3.3
<b>Total &lt; 100% due to errors in rounding</b>	<b>99.9</b>
Number of respondents	
Number of non-responses	

A total of 30 pharmacists responded to this question. The table shows that pharmacists work as many as 17 hours over the two-day weekend. It indicates also that more than half of the respondents work at most 10 hours over the weekend.



F7c Base: Only respondents (30 of them) who indicated in question f7a that they worked on weekends were asked the following question:

“Approximately how many prescriptions do you dispense on a typical weekend (Saturday and/or Sunday)?”

The results are summarised below in Table C-21.

**Table C-21 Number of Prescriptions Dispensed over Weekend**

# of prescriptions dispensed on typical weekend	% of respondents
<10	6.7
11-20	23.3
21-30	13.3
31-40	10.0
41-50	10.0
51-60	3.3
61-70	3.3
71-80	10.0
>80	20.2
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>
Number of respondents = 30	
Number of non-responses = 0	

A total of 30 pharmacists responded to this question. The table shows that there is considerable variation in the number of prescriptions dispensed over the weekend. For instance, 30.0 percent of the respondents dispense less than twenty prescriptions while another 20.2 percent dispense more than eighty prescriptions.

F8 Base: All respondents (36 of them) were asked the following question:

“How many pharmacies would you consider to be your main rivals?”

The results are summarised below in Table C-22.

**Table C-22 Number of Competitors**

# of main rivals	% of respondents
None	20.0
One	8.6
Two	22.9
Three	8.6
Four	11.4
Five	5.7
Six	11.4
Seven	2.9
Eight	5.7
Twenty	2.9
<b>Total</b>	<b>100.1</b>
Number of respondents = 36	
Number of non-responses = 0	

Thirty-six persons responded to this question. The results in the table show that 20.0 percent of the respondents do not think that they have any rival. In fact, 77.1 percent of the respondents do not think that they have more than five rivals. One respondent, however, indicated that he has as many as twenty rivals.

Q2 Base: All respondents (36 of them) were asked the following question:

“In your opinion, are there any differences between generic and innovator drugs? Explain”.

The responses were grouped and summarized below in Table C-23.

**Table C-23 Expressed Differences between Generic and Innovator Drugs**

Differences	% of respondents
Difference based on customer feedback	5.6
Difference in effectiveness	22.2
Difference in price	36.1
Difference in the manufacturing process	13.9
Depends on the generic	27.8
No difference between generic and innovator medication	13.9
<b>Total &gt; 100% because some respondents identified more than one source of difference</b>	
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. The table shows that 86.1 percent think that there are differences between generics and innovator medication. This total comprises 36.1 percent who observe differences in prices; 22.2 percent observe differences in the effectiveness of both types of medication; 27.8 percent that the differences depends on the particular generic medication and 5.6 percent base their opinion on feedback from their patients.

Q3a Base: All respondents (36 of them) were asked the following question:

“When comparing generic drugs to innovator drugs, in terms of the therapeutic effect, would you say the generic drug is \_\_\_\_\_ than the innovator?”

The results are summarised below in Table C-24.

**Table C-24 Pharmacists’ Perception of Relative Effectiveness of Generics**

<b>Relative therapeutic effect of generic drug</b>	<b>% of respondents</b>
A lot more effective	0.0
A little more effective	2.8
Just about the same	44.4
A little less effective	11.1
A lot less effective	2.8
It depends	38.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. The table shows that 2.8 percent of the respondents think that generic drugs are more effective than their respective innovator counterpart; another 13.9 percent think that generics are less effective than their innovator counterparts; and 44.4 percent do not believe there is any difference in the therapeutic effect of the generics and innovator medication. The other 38.9 percent think that that the relative therapeutic effectiveness depends on various factors. These factors are explored in question q3c.

Q3b Base: Only respondents (22 of them) who did not indicate in question q3a that the relative therapeutic effect of generic drugs ‘depends’ on other factors were asked the following question:

“Why do you say so?”

The results are summarised below in Table C-25.

**Table C-25 Pharmacists’ Bases for Opinion on Effectiveness of Generics**

Reasons why pharmacists think that...	% of respondents
<i>I. ... generics are more effective than innovators</i>	
Based on customer feedback	4.8
<i>II. ... generics are just as effective as innovators</i>	
Based on customer feedback	28.6
Same active ingredients	23.8
Some generics are just as effective, others are not	9.5
Same result, may have differing response times	9.5
Based on the MoH	4.8
<i>III. ... generics are less effective than innovators</i>	
Based on customer feedback	9.5
Inferior quality control methods for generics	4.8
Some generics are unstable under certain conditions	4.8
Differences in excipients used in generics	4.8
<b>Total &gt; 100% because some respondents identified more than one areas of difference</b>	
Number of respondents = 22	
Number of non-responses = 0	

The table shows that the 4.8 percent of physicians who think that generics are more effective than innovators base their opinion on feedback from their patients. It is evident that 76.2 percent of the respondents think that generic are just as effective as innovators. Of this amount, 28.6 percent base their opinion on customer feedback while 4.8 percent indicate that they base their opinion on information received from the MoH. The table also shows that 23.9 percent of the respondents believe that generics are less effective than innovator medication.

Q3c Base: Only respondents (14 of them) who indicated in question q3a that the relative effectiveness of generic drugs ‘depends’ on other factors were asked the following question:

“On what does it depend?”

The results are summarised below in Table C-26.

**Table C-26 Factors Influencing the Effectiveness of Generics**

	<b>% of respondents</b>
Patient and/or illness	42.9
The manufacturer of the drug	14.3
The excipient used to manufacture the generic drug	35.7
Other	7.1
<b>Total</b>	<b>100.0</b>
Number of respondents = 14	
Number of non-responses 0	

Of the 14 pharmacists who responded to the question, approximately 42.9 percent was of the view that the effectiveness of generic drugs depends on the particular individuals being treated and or the ailment being treated. Another 14.3 percent is of the opinion hold the view that the drug manufacturer influenced the effectiveness of generic drugs.

Q4a Base: All respondents (36 of them) were asked the following question:

“Do you think there is a need for greater awareness of generic drugs...?”

The results are summarised below in Table C-27.

**Table C-27 Need for Greater Awareness of Generics by stakeholders**

<b>The need for greater awareness among...</b>	<b>% of respondents</b>
...within the Government	22.2
... among consumers	86.1
... among physicians	22.2
... among pharmacists	11.8
<b>Total &gt; 100 % because respondents selected multiple options</b>	
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. The table shows that more pharmacists think the need for greater awareness about generic drugs is greatest among consumers. It shows 86.1 percent of pharmacists think that there is a need for greater awareness among consumers, but only 22.2 percent think that there is a need for greater awareness of generic drugs within the Government; 22.2 percent thinks there is a need for greater awareness among physicians and 11.8 percent among pharmacists.

Q4b Base: Only respondents (31 of them) who indicated in question q4a that think that there is a need for greater awareness of generic drugs were asked the following question:

“What could be done to increase the awareness of generic drugs?”

The results are summarized below in Table C-28.

**Table C-28 Strategies to Increase Awareness of Generics**

	<b>% of respondents</b>
Doctors/ pharmacists should inform their customers	61.3
Government should embark on public education campaign	35.5
Drug manufacturers should disseminate more information	3.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 31	
Number of non-responses = 0	

Q5 Base: All respondents (36 of them) were given the following instruction:

“Rank the following sources of information in order of your exposure to information on prescription medication using 1 to indicate the source that provides you with the greatest amount of information.”

The responses are summarized below in Table C-29 through Table C-31.

**Table C-29 Top Sources of Exposure to Information for Pharmacists**

Sources of information on prescription drugs	% of respondents who rank source as #1	Number of respondents	Number of non-responses
Seminar sponsored by drug manufactures/ Drug reps.	52.8	36	0
Medical Journals	12.9	31	5
Flyers/ Brochures	12.1	33	3
Pharmaceutical Society of Jamaica	8.8	34	2
Television/ Radio/ Newspaper Ads	3.4	29	7
Internet	2.9	34	2
“Other”	11.1	36	0

**Table C-30 Top Two Sources of Exposure to Information for Pharmacists**

Sources of information on prescription drugs	% of respondents who rank source as #1 or #2	Number of respondents	Number of non-responses
Seminar sponsored by drug manufactures/ Drug reps.	75.0	36	0
Flyers/ Brochures	39.4	33	3
Medical Journals	32.3	31	5
Internet	23.5	34	2
Pharmaceutical Society of Jamaica	23.5	34	2
Television/ Radio/ Newspaper Ads	3.4	29	7
“Other”	13.9	36	0

**Table C-31 Top Three Sources of Exposure to Information for Pharmacists**

<b>Sources of information on prescription drugs</b>	<b>% of respondents who rank source as #1, #2 or #3</b>	<b>Number of respondents</b>	<b>Number of non-responses</b>
Seminar sponsored by drug manufactures/ Drug reps.	91.7	36	0
Flyers/ Brochures	66.7	33	3
Medical Journals	58.1	31	5
Pharmaceutical Society of Jamaica	41.2	34	2
Internet	35.3	34	2
Television/ Radio/ Newspaper Ads	10.3	29	7
“Other”	13.9	36	0

Table C-29 through Table C-31 above reveals that the primary source of information for pharmacist are seminars sponsored by drug manufactures or information from drug representatives.

Q6 Base: All respondents (36 of them) were given the following instruction:

“Rank the following sources of information for pharmacists in order of credibility.

Where 1 is most believable, 2 is second most believable, and so on”.

The responses are summarized below in Table C-32 through Table C-34.



**Table C-32 Top Sources of Credible Information for Pharmacists**

<b>Sources of information on prescription drugs</b>	<b>% of respondents who rank source as #1</b>	<b>Number of respondents</b>	<b>Number of non-responses</b>
Medical Journals	40.0	30	6
Drug Distributor Representatives	32.4	34	2
Ministry of Health	15.4	26	10
Other Pharmacists	7.1	28	8
Manufacturers	7.1	28	8
Internet	6.7	30	6
Pharmaceutical Society of Jamaica	0.0	28	8
Physician	0.0	27	9
Other	2.8	36	0

**Table C-33 Top Two Sources of Credible Information for Pharmacists**

<b>Sources of information on prescription drugs</b>	<b>% of respondents who ranks source as #1 or #2</b>	<b>Number of respondents</b>	<b>Number of non-responses</b>
Medical Journals	56.7	30	6
Drug Distributor Representatives	44.1	34	2
Internet	30.0	30	6
Manufacturers	25.0	28	8
Pharmaceutical Society of Jamaica	25.0	28	8
Ministry of Health	23.1	26	10
Other Pharmacists	14.3	26	10
Physician	7.4	27	9
Other	2.7	36	10

**Table C-34 Top Three Sources of Credible Information for Pharmacists**

Sources of information on prescription drugs	% of respondents who ranks source as #1, #2 or #3	Number of respondents	Number of non-responses
Medical Journals	63.3	30	6
Drug Distributor Representatives	61.8	34	2
Manufacturers	53.6	28	8
Pharmaceutical Society of Jamaica	39.3	28	8
Ministry of Health	38.5	26	10
Internet	36.7	30	6
Other Pharmacists	25.0	28	8
Physician	14.8	27	9
Other	2.8	36	0

Table C-32 through Table C-34 reveal that medical journals are thought by pharmacists to be a more credible source of medical information than any other source; Drug Representatives are considered to be the second most credible source.

Q7a Base: All respondents (36 of them) were given the following instruction:

“Indicate whether your pharmacy accepts the insurance from the following sources”.

The results are summarised below in Table C-35.

**Table C-35 Pharmacies' Acceptance of Insurance by Provider**

Insurance	% of respondents accepting insurance
National Health Fund (NHF)	93.9
Jamaica Drugs for the Elderly Program (JADEP)	66.7
Insurance issued by private sector	100.0
Other	0.0
<b>Total &gt; 100 % because of respondents provided multiple responses.</b>	
Number of respondents = 33	
Number of non-responses = 3	

A total of 33 pharmacists responded to this question. The table shows every respondent accept health insurance cards offered by private sector health insurers. It shows also that 66.7 percent accept the JADEP card whilst 93.9 percent accept the NHF card.

Q7b Base: All respondents (36 of them) were given the following instruction:

“Approximately what percentage of consumers who fill prescription at your pharmacy falls in the following categories?”

The results are summarised below in Table C-36.

**Table C-36 Insurance Coverage Status of Pharmacy Customers**

<b>Insurance coverage of customers (in percentage)</b>	<b>% of respondents</b>
<i>Consumers not covered by any health insurance</i>	
0-20	36.1
21-40	27.8
41-60	33.3
61-100	2.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	
<i>Consumers covered by the NHF and/or JADEP</i>	
0-20	47.2
21-40	16.7
41-60	22.2
61-100	13.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	
<i>Consumers covered by a private sector company</i>	
0-20	16.7
21-40	36.1
41-60	30.6
61-100	16.7
<b>Total &gt; 100% due to error in rounding</b>	<b>100.1</b>
Number of respondents = 36	
Number of non-responses = 0	
<i>Consumers covered by other type of insurance</i>	
0	97.2
10	2.8
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacies responded to this question. The results show that 63.9 percent of respondents indicate that no more than sixty percent of their customers have access to any health insurance. The table also shows that coverage through JADEP and NHF was relatively smaller than coverage through private health insurance; some 47.2 percent reported that no more than twenty percent of their customers have health insurance

through the Government whilst only 16.7 percent reported similar coverage from private health insurers.

Q8a Base: All respondents (36 of them) were asked the following question:

“Do you believe consumers are currently getting good quality drugs at reasonable prices?”

The results are summarised below in Table C-37.

**Table C-37 Pharmacists’ Opinion of Drug Quality v. Prices**

	<b>% of respondents</b>
Yes	73.5
No	23.5
It depends	2.9
<b>Total &lt; 100% due to error in rounding</b>	<b>99.9</b>
Number of respondents = 34	
Number of non-responses 2	

A total of 34 pharmacists responded to this question. The results summarized in the table show that 73.5 percent of respondents believe that consumers are getting good quality drugs at reasonable prices.

Q8b Base: Only respondents (34 of them) who responded to question q8a were asked the following question:

“Why [do you /do you not believe that consumers are getting good quality drugs at reasonable prices]?”

The results are summarised below in Table C-38.

**Table C-38 Reasons for Pharmacists' Opinion on Drug Quality v. Prices**

<b>Reasons for...</b>	<b>% of respondents</b>
<i>...believing</i>	
Wide variety of drugs	8.0
Wide variety of generic drugs	40.0
Health Insurance/ Programs such as JADEP and NHF	20.0
Other	32.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 25	
Number of non-responses = 0	
<i>...not believing</i>	
Quality is good but price is unreasonably high	75.0
Not all drugs are covered by insurance	12.5
Other	12.5
<b>Total</b>	<b>100.0</b>
Number of respondents = 8	
Number of non-responses = 0	

A total of 34 persons responded to this question. For those twenty-five respondents who believe that consumers are getting good quality drugs, the table indicates that three reasons offered are (i) there is a wide variety of drugs available in Jamaica (8.0 percent); (ii) there is a wide variety of generic drugs (40.0 percent); (iii) the availability of subsidized drugs through the NHF/ JADEP programs (20.0 percent). For the eight persons who do not agree with the statement, 75.0 percent think that drug prices are unreasonably high.

Q9 Base: All respondents (36 of them) were asked the following question:

“Does your pharmacy supply generic drugs?”

The results are summarised below in Table C-39.

**Table C-39 Retail Supply of Generic Medication**

	<b>% of respondents</b>
Yes	100.0
No	0.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 persons responded to this question. The table shows that every each pharmacy sells generic drugs.

Q10a Base: All respondents (36 of them) were asked the following question:

“Do you verbally inform customers of the availability of generic drugs?”

The results are summarised below in Table C-40.

**Table C-40 Extent to Which Pharmacists Inform Customers of Generic Availability**

	<b>% of respondents</b>
Always	36.1
Often	47.2
Sometimes	16.7
Seldom	0.0
Never	0.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 persons responded to this question. The results in the table indicate that each respondent at least ‘sometimes’ verbally inform customers of the availability of generic drugs, with 47.2 percent ‘often’ doing so and another 36.1 percent ‘always’ verbally doing so.

Q10b Base: Only respondents who indicated in question q10a that they ‘seldom’ or ‘never’ verbally inform their customers (36 of them) were asked the following question:

“What are your reasons for not doing so more frequently?”

Since every pharmacist indicated that they at least ‘sometimes’ informed their customers of the availability of generics, no one was asked this question.

Q10c Base: Only respondents who indicated in question q10a that they at least ‘sometimes’ verbally inform their customers (36 of them) were asked the following question:

“What are your reasons for doing so?”

The results are summarised below in Table C-41.

**Table C-41 Reasons for Informing Customers of Generic Availability**

<b>Reasons for informing customers</b>	<b>% of respondents</b>
Provide customers with more affordable options	75.0
Give customers a choice	16.7
Other	8.3
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses =0	

The table indicates that most pharmacists (75.0 percent) verbally inform customers of the availability of generic drugs to provide them with more affordable options.

Q11a Base: All respondents (36 of them) were asked the following question:

“When patients visit the pharmacy, do they ask for a specific type (innovator or generic) of drug?”

The results are summarised below in Table C-42.



**Table C-42 Frequency in which Customers ask for Specific types of Medication**

	<b>% of respondents</b>
Always	5.7
Often	5.7
Sometimes	68.6
Seldom	17.1
Never	2.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 35	
Number of non-responses = 1	

A total of 35 pharmacists responded to this question. The results in the table show that the customers of 20.0 percent of the respondents infrequently ('seldom' or 'never') requests a specific type of drug whilst customers of 11.4 percent of respondents frequently ('often' or 'always') do so. The customers of the remaining 68.6 percent 'sometimes' make requests for a specific type of drug.

Q11b Base: Only respondents (28 of them) who indicated in question q11a that customers at least 'sometimes' ask for a specific type of drug were asked the following question:

"On average, say for every ten visits [that] you receive, on how many occasions would you say customers ask for a specific drug?"

The results are summarised below in Table C-43.

**Table C-43 Number of Occasions Specific Type of Drug is Requested at Pharmacy**

# out of ten visits requests are made	% of respondents
One	3.6
Two	25.0
Three	17.9
Four	14.3
Five	14.3
Six	3.6
Seven	17.9
Eight	3.6
<b>Total &gt; 100% due to error in rounding</b>	<b>100.2</b>
Number of respondents = 28	
Number of non-responses = 0	

A total of 28 pharmacists responded to this question. The table shows that the customers of 39.4 percent of respondents request a specific type of drug on at least five out of every ten visits to pharmacies.

Q11c Base: Only respondents (28 of them) who indicated in question q11a that customers at least ‘sometimes’ ask for a specific type of drug were asked the following question:

“And out of this total, how often would you say [that] you facilitate this request?”

The results are summarised below in Table C-43.

**Table C-44 Number of Occasions Pharmacists Facilitate Requests for Specific Type**

# of times, out of every 10 visits, customers request specific type of drug	No. of requests facilitated								Total
	one	two	three	four	five	six	seven	eight	
One	1	--	--	--	--	--	--	--	1
Two	1	6	--	--	--	--	--	--	7
Three	0	0	5	--	--	--	--	--	5
Four	0	0	0	4	--	--	--	--	4
Five	0	0	1	0	3	--	--	--	4
Six	0	0	0	0	0	1	--	--	1
Seven	0	0	0	0	2	1	2	--	5
eight	0	0	0	0	0	0	0	1	1
<b>Total</b>	<b>2</b>	<b>6</b>	<b>6</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>28</b>

A total of 28 pharmacists responded to this question. It shows that pharmacist almost always facilitate the request of their customers. For instance, six of the seven pharmacists who indicated that 2 out of every 10 customers request a specific type of drug, facilitated the request on each occasion. Similarly, four pharmacists indicated that 5 out of every 10 customers make specific requests; three of these four pharmacists facilitated the request on each occasion.

Q11d Base: Only respondents who indicated in question q11a that customers at least

‘sometimes’ ask for a specific type of drug (28 of them) were asked the following question:

“Which [type of drug] do they ask for more often?”

The results are summarised below in Table C-45.

**Table C-45 Type of Drug Requested more often by Consumers**

	<b>% of respondents</b>
Innovator	25.0
Generic	53.6
Neither	21.4
<b>Total</b>	<b>100.0</b>
Number of respondents = 28	
Number of non-responses = 0	

A total of 28 pharmacists responded to this question. The table shows that 53.6 percent of the respondents indicate that their customers request generic drugs more often than innovator drugs and another 25.0 percent reports that the innovator drugs are requested more often than generics.

Q12a Base: All respondents (36 of them) were asked the following question:

“For the prescriptions [that] you dispense, out of 10 what is the ratio of innovator to generic?”

The results are summarised below in Table C-46.

**Table C-46 Ratio of Innovator to Generic Drugs Dispensed by Pharmacist**

<b># of generic out of every 10 prescriptions</b>	<b>% of respondents</b>
2	5.6
3	13.9
4	13.9
5	16.7
6	11.1
7	27.8
8	11.1
<b>Total</b>	<b>100.1</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. Some 50.0 percent of the respondents indicate that no more than five out of every ten prescriptions dispensed are for generic medication.

Q12b Base: Only respondents (30 of them) who indicated that one type of drug was dispensed more often than the other were asked the following question:

“What are the reasons why \_\_\_\_\_ is dispensed more often?”

The results are summarised below in Table C-47.

**Table C-47 Reason why Specific Types of Rx is Dispensed More Often**

<b>Reasons why each type is dispensed more often</b>	<b>Number of Pharmacies</b>	<b>% of respondents</b>
<i>Innovator type</i>		
Doctor prescribed/ customers request	8	72.7
Customers have more confidence in the innovator	2	18.2
Other	1	9.1
<b>Number of respondents</b>	<b>11</b>	<b>100.0</b>
Number of non-responses	1	
<i>Generic type</i>		
At patient's request	2	11.8
Affordability to consumers	14	82.4
Other	1	5.9
<b>Number of respondents</b>	<b>17</b>	<b>100.1</b>
Number of non-responses	1	

Eight (72.7 percent) of the eleven pharmacies who dispense innovator medication more often than generic medication indicated that they do so based on either customers' request or the doctor's instruction. Another two pharmacists do so because customers have more confidence in the innovator medication.

Fourteen (11.8 percent) of the seventeen pharmacists who dispense generic medication more often than innovator medication do so because generics are more affordable for their customers. Another two pharmacists dispenses generics more often to satisfy their customers' requests.

Q13a Base: All respondents (36 of them) were asked the following question:

“Have you ever dispensed an innovator at the pharmacy though the physician prescribed a generic drug?”

The results are summarised below in Table C-48.

**Table C-48 Incidence of Innovator Substitution**

	<b>% of respondents</b>
Yes	94.4
No	5.6
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. The table shows that 94.4 percent of the respondents dispense innovator medication even though the physician prescribed generic drugs.

Q13b Base: All respondents (36 of them) were asked the following question:

“Why/ Why not?”

The results are summarised below in Table C-49.

**Table C-49 Reasons for Innovator Substitution/ Non-Substitution**

<b>Reasons why...</b>	<b>% of respondents</b>
<i>... innovators are dispensed more often</i>	
Generic not in stock/ customer's request	97.0
Customer has health insurance	3.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 33	
Number of non-responses = 1	
<i>... generics are dispensed more often</i>	
Generally follows the physician's order	100.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 2	
Number of non-responses = 0	

A total of 35 pharmacists responded to this question. The table indicate that thirty three pharmacists have dispensed innovator drugs even though the physician prescribed generic medication whilst two pharmacists have never done so. The table above indicates that 97.0 percent the pharmacists do so because either the generic drugs were not in stock or the customer requested the innovator drug. The two persons who have never dispensed the innovator drugs even generic was prescribed because the generally follow the physician's instructions.

Q14a Base: All respondents (36 of them) were asked the following question:

“Have you ever dispensed a generic drug at the pharmacy though the physician prescribed an innovator drug?”

The results are summarised below in Table C-50.

**Table C-50 Incidence of Generic Substitution**

	<b>% of respondents</b>
Yes	100.0
No	0.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. The table shows that every respondent dispensed generic medication even though the physician prescribed innovator drugs.

Q14b Base: All respondents (36 of them) were asked the following question:

“Why/ Why not?”

The results are summarised below in Table C-51.

**Table C-51 Reasons for Generic Substitution/ Non-Substitution**

<b>Reasons why generic was dispensed</b>	<b>% of respondents</b>
At customer's request	83.3
Customer cant afford innovator	22.2
Doctor indicates its okay to substitute	11.1
Innovator unavailable/ not in stock	55.6
<b>Total &gt; 100% because respondents provided multiple reasons.</b>	
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. The table shows that the main reason why 83.3 percent of the respondents dispense generic medication when innovator was prescribed is to facilitate the request of their customers. Another 22.2 percent indicate that they dispense generic drugs because their customers could not afford to purchase the innovator medication.

Q15a Base: All respondents (36 of them) were asked the following question:

“If you have both types (generic and innovator) of drugs in stock, which of the following factors influence your decision to dispense a generic drug over the innovator?”

The results are summarised below in Table C-52.



**Table C-52 Factors Influencing the Type of Medication Dispensed**

<b>Influence</b>	<b>% of respondents</b>
Tradition/ (its what I have always dispensed)	14.7
Type of ailment	37.1
Effectiveness	48.6
Physicians/ nurse/ pharmacist recommended	55.6
The price of generic relative to the innovator- <b>the lower</b> ... the price...the more likely I am to dispense the drug	58.3
The price of generic relative to the innovator- <b>the higher</b> ... the price...the more likely I am to dispense the drug	2.8
Incentives provided by the manufacturer/ Drug rep.	11.1
Health insurance coverage of the customer	58.3
Customer's request	88.9
Other	13.9
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. The table shows that customers' requests and their ability to pay are the most common factors influencing the respondents' decision to dispense a generic over the innovator drug. Specifically, 88.9 percent of respondents indicated they are influenced by their customers' requests, 58.3 percent are influenced by the health insurance coverage of the customer and another 58.3 percent consider the relatively low price of generic drugs.

Q15b Base: All respondents (36 of them) were asked the following question:

“Which of the factors identified above would you consider to be in the TOP THREE strongest influences on the types of drug you dispensed?”

The results are summarised below in Table C-53.

**Table C-53 Factors in Top Three Influence on type of Drug Dispensed**

<b>Influence</b>	<b>% of respondents</b>
Tradition/ (its what I have always dispensed)	11.1
Type of ailment	22.2
Effectiveness	30.6
Physicians/ nurse/ pharmacist recommended	30.6
The price of generic relative to the innovator- <b>the lower</b> ... the price...the more likely I am to dispense the drug	38.9
The price of generic relative to the innovator- <b>the higher</b> ... the price...the more likely I am to dispense the drug	2.8
Incentives provided by the manufacturer/ Drug rep.	2.8
Health insurance coverage of the customer	13.9
Customer's request	66.7
Other	2.9
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. The results in the table demonstrate that “customer requests” is the single-most important influence on the decision of which types of drug dispensed. Approximately two-thirds (66.7 percent) of the respondents indicated that “customer request” is among their top three influences. The relative price of generics is also important as 38.9 percent of respondents indicate that lower prices of generic drugs influence the type of drugs dispensed. In comparison, only 30.6 percent indicated that the effectiveness of the generic drug is among the top three influences on the decision of which type of drug to dispense.

Q16a Base: All respondents (36 of them) were given the following instruction:

“For each ailment listed below, please indicate those sub-classes of drugs for which the innovator and generic are currently being distributed in Jamaica?”

The results are summarised below in Table C-54.

**Table C-54 Pharmacists' Awareness of Availability by Ailment and Sub-class**

	No. of respondents	% of respondents indicating that the drugs within the sub-classes are available
Panel A: Classes of drugs used to treat Arthritis		
Non-steroidal anti-inflammatory drugs	31	93.9
Disease-modifying anti rheumatic drugs	24	72.7
Corticosteroids	23	69.7
None of the above	0	0.0
Panel B: Classes of drugs used to treat Asthma		
Steroids: short-term controllers	29	87.9
Steroids: long-term controllers	26	78.8
None of the above	0	0.0
Panel C: Classes of drugs used to treat High Cholesterol		
HMG CoA reductase inhibitors (statins)	30	90.9
Bile acid sequestrants	11	33.3
Nicotinic acid	7	21.9
Fibric acid	12	37.5
None of the above	1	3.1
Panel D: Classes of drugs used to treat Diabetes		
Sulfonylurea	31	93.9
Thiazolidineiones	23	69.7
Biguanides	29	87.9
Alpha-glucosidase inhibitors	17	51.5
Insulin	23	69.7
None of the above	0	0.0
Panel E: Classes of drugs used to treat Hypertension		
Beta blockers	32	97.0
Calcium channel blockers	31	93.9
ACE Inhibitors	31	93.9
Vasodilators	28	87.5
Diuretics	32	97.0
None of the above	0	0.0

Q16b Base: All respondents (36 of them) were given the following instruction:

“For each sub-class of the drug [that] you identified above, indicate if you would be reluctant to dispense a generic drug over the innovator drug”

The responses are summarised below in Table C-55.

**Table C-55 Pharmacists' Reluctance to Dispense Generic by Ailment and Sub-class**

	No. of respondents	% of respondents indicating that the drugs within the sub-classes are available
Panel A: Classes of drugs used to treat Arthritis		
Non-steroidal anti-inflammatory drugs	1	2.9
Disease-modifying anti rheumatic drugs	2	5.7
Corticosteroids	2	5.7
None of the above	31	88.6
Panel B: Classes of drugs used to treat Asthma		
Steroids: short-term controllers	3	8.8
Steroids: long-term controllers	4	11.8
None of the above	27	81.8
Panel C: Classes of drugs used to treat High Cholesterol		
HMG CoA reductase inhibitors (statins)	1	2.9
Bile acid sequestrants	0	0.0
Nicotinic acid	0	0.0
Fibric acid	1	2.9
None of the above	31	91.2
Panel D: Classes of drugs used to treat Diabetes		
Sulfonylurea	1	2.9
Thiazolidineiones	1	2.9
Biguanides	0	0.0
Alpha-glucosidase inhibitors	0	0.0
Insulin	1	2.9
None of the above	31	91.2
Panel E: Classes of drugs used to treat Hypertension		
Beta blockers	1	2.8
Calcium channel blockers	2	5.6
ACE Inhibitors	1	2.8
Vasodilators	1	2.8
Diuretics	1	2.8
None of the above	31	91.2

A total of 31 pharmacists responded to this question. The table shows that very few pharmacists would be reluctant to dispense a generic for the innovator counterpart.

Q17a Base: All respondents (36 of them) were asked the following question:

By definition, a formulary is a list of the most commonly prescribed medications that have been selected by physicians, pharmacists and other health care professionals on the basis of their effectiveness and cost.

“Are you restricted by any formulary?”

The results are summarised below in Table C-56.

**Table C-56 Formulary Restrictions among Pharmacists**

<b>Are you restricted by any formulary?</b>	<b>% of respondents</b>
Yes	0.0
No	100.0
<b>Total</b>	<b>100.0</b>
Number of Respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacists responded to this question. The table shows that none of the respondents were restricted by any formulary.

Q18a Base: All respondents (36 of them) were asked the following question:

“Have you ever pre-announced any change in your business policy/strategy?”

The results are summarised below in Table C-57.

**Table C-57 Pharmacies Pre-announcements of Changes in Business Strategies**

<b>Ever pre-announce any change in your business strategy?</b>	<b>% of respondents</b>
Yes	8.8
No	91.2
<b>Total</b>	<b>100.0</b>
Number of respondents = 34	
Number of non-responses = 2	

A total of 36 pharmacists responded to this question. The table shows that 8.8 percent of the respondents pre-announce changes in their business policy/ strategy.

Q18b Base: Only respondents (3 of them) who indicated in question q18a that they have pre-announced changes in their business strategy were asked the following question:

“What aspect of your business strategy do you pre-announce any change in?”

The results are summarised below in Table C-58.

**Table C-58 Types of Business Strategy Pharmacists Pre-announced Changes in**

	<b>Yes</b>	<b>No</b>
Price changes	2	1
Changes in availability of drug	1	2
Other changes	0	3

A total of three pharmacists responded to this question. The table shows that two of the respondents pre-announce changes to the prices of their products and one respondent pre-announces changes in the availability of drugs they carry.

Q18c Base: Only respondents (2 of them) who indicated in question q18b that they have pre-announced changes prices were asked the following question:

“To whom do you normally communicate information on future price changes?”

The results are summarised below in Table C-59.

**Table C-59 Persons Informed of Future Price Changes**

	<b>Yes</b>	<b>No</b>
Employees	1	1
Customers	0	2
General public	0	2
Affiliate retailers	0	2
Competing retailers	0	2
Wholesalers	0	2
Health insurer	0	2
Other	0	2

A total of two persons responded to this question. The table shows that one of the two persons who pre-announce changes in the prices of their product communicates the information to their employees.

Q18d Base: Only the respondent who indicated in question q18b that they have pre-announced changes availability of a drug was asked the following question:

“To whom do you normally communicate information on changes in the availability of a prescription drug?”

The results are summarised below in Table C-60.

**Table C-60 Persons Informed of Future Changes in Drug Availability**

	<b>Yes</b>	<b>No</b>
Employees	1	0
Customers	0	1
General public	0	1
Affiliate retailers	0	1
Competing retailers	0	1
Wholesalers	0	1
Health insurer	1	0
Other	0	1

Only one pharmacist responded to this question. The table shows that the pharmacist communicated information on changes in the availability of prescription drugs only to employees and health insurers.

Q19 Base: All respondents (36 of them) were asked the following question:

“From which of the following wholesalers do you purchase prescription drugs?”

The results are summarised below in Table C-61.

**Table C-61 Number of Pharmacies Supplied by Distributor**

	<b>% of respondents</b>
Amalgamated Distributors Ltd.	63.9
Cari-Med Ltd.	100.0
Facey Commodity Co. Ltd.	100.0
Glaxo Smithkline (Beecham) Caribbean Ltd.	66.7
HD Hopwood	100.0
Health Corporation Ltd.	36.1
Inter-Commercial Ltd	100.0
Lasco Distributors	100.0
Medi-Grace Ltd.	100.0
Medimplex Jamaica Ltd	97.2
MJD Pharmaceutical Co. Ltd	75.0
T.Geddes Grant	100.0
Qualcare	41.7
Indies Pharmacy Jamaica Ltd	22.2
West Med Pharmaceuticals	25.0
New Vision Distributors	13.9
Smith, Russell and Co.	5.6
Ayrton Distributors	5.6
Lascelles Laboratories	16.7
Supreme Chemicals	8.3
<b>Total &gt; 100% because distributors supplied multiple pharmacies</b>	
Number of respondents	
Number of non-responses	

A total of 36 pharmacists responded to this question. It shows that eleven of the twenty wholesalers supply a substantial proportion of the respondents.

Q20a Base: All respondents (36 of them) were asked the following question:

“Do you receive all your prescription drugs for the following chronic ailments from a single wholesaler?”

The results are summarised below in Table C-62.



**Table C-62 Incidence of Single Sourcing by Ailment**

	<b>Pharmacies who single source</b>	<b>Pharmacies who do not single source</b>	<b>Total</b>
Arthritis	1	35	36
Asthma	1	35	36
High Cholesterol	1	35	36
Diabetes	1	35	36
Hypertension	1	35	36

A total of 36 pharmacists responded to this question. The table shows that only one pharmacy (2.8 percent) single-source medication for the listed chronic ailments.

Q20b Base: All respondents (36 of them) were asked the following question:

“What is your main reason [for single sourcing or not single-sourcing medication]?”

The results are summarised below in Table C-63.

**Table C-63 Reasons Pharmacies Do not Single Source**

<b>Main reasons for...</b>	<b>% of respondents</b>
<i>...Not Single-Sourcing</i>	
One wholesaler doesn't carry all the required drugs	97.1
Buy each drug from lowest priced wholesaler	2.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 35	
Number of non-responses =0	
<i>...Single-Sourcing</i>	
<no response was supplied>	
Number of respondents =0	
Number of non-responses =1	

The table above shows that the main reason firms do not purchase all their medication for chronic ailments from one distributor is because no individual distributor carries all the products pharmacies require. The sole pharmacy that indicated it obtains all medication for chronic ailments from a single source did not offer a reason.

Q21a Base: All respondents (36 of them) were asked the following question:

“Do any of your suppliers require that you purchase drug Y, in order to get drug X?”

The results are summarised below in Table C-64.

**Table C-64 Tied-Selling at the Distribution Level**

	<b>% of respondents</b>
Yes	0.0
No	100.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

The table shows that no pharmacy indicates that they have been victims of tied-selling.

Q22a Base: All respondents (36 of them) were asked the following question:

“Do suppliers recommend the price at which you should resell their products?”

The results are summarised below in Table C-65.

**Table C-65 Incidence of Suggested Resale Pricing Strategy at the Distribution level**

	<b>% of respondents</b>
Yes	11.1
No	88.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 35	
Number of non-responses = 1	

The table shows that suppliers recommend resale prices to 88.9 percent of the respondents.

Q22b Base: Only respondents (4 of them) who indicated in question q22a that their suppliers recommended resale prices were asked the following question:

“Do you think [that] you would be penalized by your supplier for not adhering to recommendations?”

The results are summarised below in Table C-66.

**Table C-66 Incidence of Resale Price Maintenance**

	<b>Number of Pharmacies</b>
Yes	0
No	4
<b>Total</b>	<b>4</b>

The table shows that none of the pharmacies think that they would be penalised for not adhering to the prices recommended by their suppliers.

Q22c Base: Only respondents (4 of them) who indicated in question q22a that their suppliers recommended resale prices were asked the following question:

“Considering the drugs for which suppliers recommended resale prices, indicate [from the list provided] the ailments these drugs are used to treat?”

The results are summarised below in Table C-67.

**Table C-67 Incidence of Suggested Resale Price by Ailment**

<b>Ailments</b>	<b>Number of Pharmacies</b>
Arthritis	3
Asthma	3
Diabetes	3
High Cholesterol	3
Hypertension	3
Other	1
Number of respondents = 4	
Number of non-responses = 0	

The table shows that three of the four respondents indicate that the recommended prices are on drugs used to treat all of the listed ailments.

Q23a Base: All respondents (36 of them) were asked the following question:

“Do any of the wholesalers of pharmaceuticals require contractual arrangements?”

The results are summarised below in Table C-68.

**Table C-68 Incidence of Distributor Contractual Arrangements**

	<b>% of respondents</b>
Yes	11.4
No	88.6
<b>Total</b>	<b>100.0</b>
Number of respondents = 35	
Number of non-responses =1	

The table shows that 88.6 percent of pharmacies have contractual arrangements with distributors.

Q23b Base: Only respondents (4 of them) who indicated in question q23a that their suppliers require contractual arrangements were asked the following question:

“Do these [arrangements] restrict you ability to source drugs from wholesalers?”

The results are summarised below in Table C-69.

**Table C-69 Restrictions to Sourcing Drugs**

<b>Do the arrangements restrict your ability to source drugs?</b>	<b>Number of Pharmacies</b>
Yes	0
No	4
<b>Total</b>	<b>4</b>

None of the pharmacies indicated that the contractual arrangements with wholesalers are restricting their ability to source drugs.

Q24a Base: All respondents (36 of them) were asked the following question:

“During the period in which you have been in the industry are there any (other) actions within the industry which have adversely affected the ability of your pharmacy to supply drugs to consumers?”

The results are summarised below in Table C-70.

**Table C-70 Incidence of Supply Restrictions of Pharmacies**

	% of respondents
Yes	21.2
No	78.8
Total	100.0
Number of respondents = 33	
Number of non-responses 3	

The table shows that 21.1 percent of the respondents indicated that their ability to supply drugs have been adversely affected by other players in the sector.

Q24b Base: Only respondents (7 of them) who indicated in question q24a that their ability to supply drugs to consumers was adversely affected were asked the following question:

“Who engaged in the activity? Please select from the list below”

The results are summarised below in Table C-71.

**Table C-71 Types of Businesses Restricting Pharmacies**

	Number of Pharmacies
Wholesaler	4
Another retailer	0
HMO	0
Physician	0
Other	
- manufacturer	4
Number of respondents = 7	
Number of non-responses = 0	

The table above shows that seven pharmacists responded to the question. It shows that there are three pharmacies which were affected by wholesalers only, three pharmacies which were affected by manufacturers only and one pharmacy that was affected by wholesaler(s) and manufacturer(s).

Q24c Base: Only respondents (7 of them) who indicated in question q24a that their ability to supply drugs to consumers was adversely affected were instructed as follows:

“Briefly describe the activity?”

The results are summarised below in Table C-72.

**Table C-72 Ways in which pharmacies are restricted**

	<b>Number of pharmacies</b>
<i>Activities of Wholesaler</i>	
Drugs out of stock for long periods	2
Discontinued particular drug following merger	1
High prices and expiration dates	1
<i>Activities of other (manufacturer)</i>	
Patent was violated	1
Drug manufacturer prevented generics from being distributed	1
Drug out of stock/ discontinued	2

A total of seven pharmacists responded to this question. Two pharmacists indicate that wholesalers was out of stock for protracted periods of time while another pharmacist indicated that wholesalers were charging high prices. Another pharmacist indicated that one wholesaler discontinued distributing a particular drug once the wholesaler was merged with another enterprise.

Two of the four pharmacies which indicated that they were affected by actions of manufactures revealed that drugs from the manufacturers were either discontinued out of stock for extended periods. One pharmacy indicated that it was prevented from retailing competing generic medication from a particular manufacturer.

Q24d Base: Only respondents (7 of them) who indicated in question q24a that their ability to supply drugs to consumers was adversely affected were asked the following question:

“Did you make any attempt to resolve the matter?”

The results are summarised below in Table C-73.

**Table C-73 Attempts by Pharmacies to Resolve Problems Faced**

	<b>Number of respondents</b>
Yes	3
No	4
<b>Total</b>	<b>7</b>
Number of respondents = 7	
Number of non-responses = 0	

The table above shows that three of the seven pharmacies attempted to resolve the issues which they had with wholesalers and manufacturers.

Q24e Base: Only respondents (3 of them) who indicated in question q24d that they attempted to resolve the matter were asked the following question:

“How was the matter resolved?”

The results are summarised below in Table C-74.

**Table C-74 Ways in Which Problems are resolved**

	<b>Number of Pharmacies</b>
Still unresolved	2
Increasing inventory	1
<b>Total</b>	<b>3</b>
Number of respondents = 3	
Number of non-responses = 0	

The table shows that two of the three pharmacies are yet to resolve their issues. The third pharmacy indicated that the matter was resolved by “increasing inventory”. It is unclear, however, whether the pharmacy increased its inventory of drugs or encouraged wholesalers to increase their inventory of drugs.

Q25 Base: All respondents (36 of them) were asked the following question:

“Name all the places [that] you think you could address any problem encountered in the pharmaceutical industry?”

The results are summarised below in Table C-75.

**Table C-75 Places Where Pharmacies Could Seek Redress**

<b>Named Institutions</b>	<b>% of respondents</b>
PCJ	86.7
MoH	73.3
PSJ	60.0
FTC	23.3
CAC	6.7
Other	26.4
<b>Total &gt; 100% because pharmacies named multiple institutions</b>	
Number of respondents = 30	
Number of non-responses = 6	

Note: None of the institutions in the ‘other’ category were selected by more than 3.3 percent of the respondents.

The table above shows that the PCJ, MoH and PSJ are the places named by the majority of pharmacies as places they could go to seek redress for problems encountered in the pharmaceutical sector. Only 23.3 percent named the FTC as a place they could go for redress.

Q26a Base: Only respondents (35 of them) operating private health facilities were asked the following question:

“Has the Health Corporation Limited (HCL) impacted on your pharmacy in any way?”

The results are summarised below in Table C-76.



**Table C-76 Has the HCL impacted Pharmacies?**

	<b>% of respondents</b>
Yes	51.4
No	48.6
<b>Total</b>	<b>100.0</b>
Number of respondents = 35	
Number of non-responses = 0	

Approximately 51.4 percent of the privately operated pharmacies indicate that the HCL has impacted their business.

Q26b Base: Only respondents (18 of them) who indicated in question q26a that their [pharmacy was impacted by the HCL were given the following instruction:

“Please explain [the way in which your pharmacy was impacted by the HCL]”

The results are summarised below in Table C-77.

**Table C-77 Ways in which HCL impacts Pharmacies**

<b>Impact of HCL on pharmacies</b>	<b>Number of pharmacies</b>
<i>Negative impact</i>	
Customers diverted to Drug Serv pharmacies [operated by HCL].	8
<i>Positive impact</i>	
Store traffic increase because of NHF/ JADEP initiatives	7
HCL supplies us with many drugs on the NHF/ JADEP initiatives	3

A total of eight pharmacies indicate that the HCL is having a negative impact on their business as they are losing customers the HCL operated (Drug Serv) pharmacies. Contrastingly, ten pharmacies reveal that the HCL is having a positive impact because the HCL has increased the number of customers as well as is a supplier of many of the drugs covered by the NHF and JADEP initiatives.

Q27a Base: Only respondents (35 of them) operating private health facilities were asked the following question:

“Has the Drug Serv program impacted on your pharmacy in any way?”

The results are summarised below in Table C-78.

**Table C-78 Is the Drug Serv Program having an impacted on Pharmacies?**

	<b>% of respondents</b>
Yes	42.9
No	57.1
<b>Total</b>	<b>100.0</b>
Number of respondents = 35	
Number of non-responses = 1	

The table above shows that the Drug Serv initiative has impacted the businesses of 42.9 percent of the pharmacies.

Q27b Base: Only respondents (15 of them) who indicated in question q27a that their pharmacy was impacted by the Drug Serv program were given the following instruction:

“Please explain [the way in which your pharmacy was impacted by the HCLJ]”

The results are summarised below in Table C-79.

**Table C-79 Ways in which the Drug Serv Program impacts Pharmacies**

<b>Impact of DrugServ on pharmacies</b>	<b>Number of pharmacies</b>
Customers diverted to Drug Serv pharmacies	15
Total	15
Number of respondents = 15	
Number of non-responses = 0	

The table shows that all fifteen pharmacies are being adversely impacted by ‘drug serv’ pharmacies which allegedly “divert” customers away from the private pharmacies.

Q28a Base: Only respondents (35 of them) operating private health facilities were asked the following question:

“Are there any actions/ policy/ regulations [implemented] by the Government which has adversely impacted on your ability in any way to supply drugs to consumers?”

The results are summarised below in Table C-80.

**Table C-80 Has Govt Actions Restricted Pharmacies’ ability to Supply Consumers?**

	<b>% of respondents</b>
Yes	20.0
No	80.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 35	
Number of non-responses = 0	

The table above shows that 20.0 percent of pharmacies indicate that their ability to supply consumers restricted by actions taken by the Government.

Q28b Base: Only respondents who indicated in question Q28a that their pharmacy was adversely impacted by any Government policy (7 of them) were given the following instruction:

“Please explain”

The responses are presented verbatim below in Table C-81.

**Table C-81 Govt. Policies which Restrict Pharmacies**

<b>Government policy impacting Pharmacies</b>	<b>Number of Pharmacies</b>
Some over the counter (OTC) drugs can be displayed while others can not.	1
Some drugs listed as prescription can be delisted to OTC	1
Tardy reimbursement of cash when drugs are sold on credit through NHF.	1
Pharmacies need to be compensated for administering JADEP	1
Information from MoH is not readily available	1
‘Drug Serv’ is misleading the public when they advertise lower prices	1
Companies importing generic forms of innovator drugs which are still on-patent.	
<b>Total</b>	<b>7</b>
Number of non-responses = 0	

The table above shows that pharmacies are being impacted with (i) the Government’s policy regarding the differing manner in which OTC drugs are treated; (ii) the manner in which drugs are classified; (ii) the Government’s poor administering of the NHF and JADEP programs; (iii) anticompetitive practice by Government-operated pharmacies; (iv) unavailability of information through MoH; and (v) the distribution of generic medication in violation of intellectual property rights.

Q28c Base: Only respondents (7 of them) who indicated in question q28a that they were adversely affected by the Government’s policies were asked the following question:

“Did you take any step to address the matter?”

The results are summarised below in Table C-82.

**Table C-82 Do Pharmacies Take Steps to Resolve Issues with Govt?**

	<b>Number of pharmacies</b>
Yes	1
No	6
<b>Total</b>	<b>7</b>
Number of non-responses = 0	

The table above shows that only one of the seven pharmacies which were impacted by the Government's policy took any step to resolve the matter with the Government.

Q28d Base: Only the respondent who indicated in question q28c that he took steps to address the matter was asked the following question:

“Was the matter resolved?”

The results are summarised below in Table C-83.

**Table C-83 Pharmacies Resolution Rate of Problems with Govt**

	<b>Number of pharmacist</b>
Yes	0
No	1
<b>Total</b>	<b>1</b>
Number of non-responses = 0	

The pharmacy indicated that issue he had with the government's policy is not resolved.

Q29 Base: All respondents (36 of them) were asked the following question:

“Would you say that during the period in which you have been operating at the retail level, a greater number of consumers have been able to buy prescription drugs at more reasonable prices?”

The results are summarised below in Table C-84.

**Table C-84 Pharmacists' Opinion on Trend in Prescription Drug Prices**

	<b>% of respondents</b>
Yes	88.9
No	11.1
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacies responded to this question. It shows that 88.9 percent of the respondents during the period in which they have been operating, a greater number of consumers have been able to buy prescription drugs at more reasonable prices.

Q30a Base: All respondents (36 of them) were asked the following question:

“Please select one of the following: ‘During the period in which I have been operating as a retailer of prescription drugs, I’ve seen \_\_\_\_\_ in the effectiveness of prescription drugs in Jamaica?’”

The results are summarised below in Table C-85.

**Table C-85 Pharmacists’ Opinion on Trend in Effectiveness of Prescription Drugs**

	<b>% of respondents</b>
... a considerable improvement	47.2
... a slight improvement	22.2
... no difference	27.8
... a slight decline	2.8
... a significant decline	0.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	

A total of 36 pharmacies responded to this question. The table shows that 69.4 percent of the respondents have observed an improvement in the effectiveness of drugs distributed in Jamaica whereas 2.8 percent have observed a decline in the effectiveness.

Q30b Base: All respondents (36 of them) were asked given the following instruction:

“Please explain why you hold this view”

The results are summarised below in Table C-86.

**Table C-86 Factors Influencing Pharmacists' Opinion on Effectiveness of Drugs**

	<b>Number of pharmacies</b>
<i>Reasons given for 'improvement'</i>	
Based on Customer Feedback	2
More effective and affordable drugs	9
Wider choice of drugs available	6
Consumers have developed a greater trust in doctors and pharmacists and they are relying less on "bush medicine"	2
The improved regulatory environment	2
<i>Reasons given for 'no difference'</i>	
Based on Customer Feedback	4
Observed no change in death rates	2
Observed no change in the effectiveness of drugs	2
<i>Reasons given for 'decline'</i>	
There are more generics on the market and generics are inferior to innovator drugs	1
<b>Total</b>	<b>30</b>
Number of non-responses = 6	

Q31a Base: All respondents (36 of them) were asked given the following instruction:

“Do you think there is a need for Jamaicans to have greater access to reasonably priced, effective prescription drugs?”

The results are summarised below in C-87.

**Table C-87 Is There a Need for Greater Access to Cheaper, More Effective Drugs?**

	<b>% of respondents</b>
Yes	77.1
No	22.9
<b>Total</b>	<b>100.0</b>
Number of respondents = 35	
Number of non-responses = 1	

The table above shows that 77.1 percent of the respondents think that there is a need for greater access to cheaper, more effective drugs.

Q31b Base: Only respondents (27 of them) who indicated in question q31a that they think there is a need for greater access to prescription drugs were asked the following question:

“What steps could be taken by the Government to ensure that reasonably priced, effective prescription drugs are available to more Jamaicans?”

The results are summarised below in Table C-88.

**Table C-88 Recommended Steps to Increase access to prescription drugs**

	<b>Number of pharmacies</b>
Expand the NHF/ JADEP initiatives	13
Reduce/remove duties on prescription drugs	3
Unsure	3
Government should invest more in the health sector	1
Reduce the length of patents on innovator drugs	1
Increase lobbying with world leaders and drug manufacturers	1
<b>Total</b>	<b>22</b>
Number of non-responses = 5	

The table above shows that 13 of the 22 respondents think that the NHF and JADEP programs should be expanded to increase access to prescription drugs.

Q32 Base: All respondents (36 of them) were asked the following question:

“Do you think there is a need for the Government to increase the awareness of generic drugs?”

The results are summarised below in Table C-89.

**Table C-89 Is there a need for Govt to Increase Awareness of Generics?**

	<b>% of respondents</b>
Yes	75.0
No	25.0
<b>Total</b>	<b>100.0</b>
Number of respondents = 36	
Number of non-responses = 0	



The table shows that 75.0 percent of the respondents think that there is a need for the Government to increase awareness of generic drugs.

Q33 Base: All respondents (36 of them) were asked the following question:

“We are interested in learning about your evaluation of the use of generic prescription products. Please select the option that BEST represents your position to each of the statements I am about to read to you.” The statements are:

Statement a: “The price difference between generic and innovator products is often so great; I feel I must offer consumers products with generic substitutes”

Statement b: “All generics that are rated as bioequivalent can be considered therapeutically equivalent with the innovator products”

Statement c: “There is no real difference between most innovator products and their generic equivalents”

Statement d: “I support generic substitution for innovator prescription products”

Statement e: “Few physicians are opposed to the use of generics today”

Statement f: “In order to keep customers, I have to provide innovator drugs”

Statement g: “I regularly discuss the difference between generic and innovator drugs with my patients”

The results are summarised below in Table C-90 and Table C-91.

Table C-90 Pharmacists' Attitudes toward Generics: Part I

	<b>Number of pharmacists</b>	<b>% of respondents</b>
Response to Statement a		
Strongly agree	4	11.1
Agree	15	41.7
Neither agree nor disagree	4	11.1
Disagree	8	22.2
Strongly disagree	5	13.9
Do not know	0	0.0
<b>Total</b>	<b>36</b>	<b>100.0</b>
Response to Statement b		
Strongly agree	9	25.0
Agree	13	36.1
Neither agree nor disagree	2	5.6
Disagree	11	30.6
Strongly disagree	1	2.8
Do not know	0	0.0
<b>Total &gt; 100% due to errors in rounding</b>	<b>36</b>	<b>100.1</b>

The table above shows that more than 50.0 percent of respondents agree with statement (a) while less than 37.0 percent disagree with it. Similarly, more than 60.0 percent agree with statement (b) with less than 34.0 percent in disagreement with it.

**Table C-91 Pharmacists' Attitudes toward Generics: Part II**

	Number of pharmacists	%
Response to Statement c		
Strongly agree	7	19.4
Agree	12	33.3
Neither agree nor disagree	4	11.1
Disagree	10	27.8
Strongly disagree	2	5.6
Do not know	1	2.8
<b>Total</b>	<b>36</b>	<b>100.0</b>
Response to Statement d		
Strongly agree	6	16.7
Agree	24	66.7
Neither agree nor disagree	5	13.9
Disagree	1	2.8
Strongly disagree	0	0.0
Do not know	0	0.0
<b>Total &gt; 100% due to errors in rounding</b>	<b>36</b>	<b>100.1</b>
Response to Statement e		
Strongly agree	7	19.4
Agree	22	61.1
Neither agree nor disagree	2	5.6
Disagree	3	8.3
Strongly disagree	0	0.0
Do not know	2	5.6
<b>Total</b>	<b>36</b>	<b>100.0</b>
Response to Statement f		
Strongly agree	6	16.7
Agree	16	44.4
Neither agree nor disagree	1	2.8
Disagree	8	22.2
Strongly disagree	4	11.1
Do not Know	1	2.8
<b>Total</b>	<b>36</b>	<b>100.0</b>
Response to Statement g		
Strongly agree	15	41.7
Agree	18	50.0
Neither agree nor disagree	2	5.6
Disagree	0	0.0
Strongly disagree	1	2.8
Do not know	0	0.0
<b>Total &gt; 100% due to errors in rounding</b>	<b>36</b>	<b>100.1</b>

The table above shows that very few respondents disagree with statements (d), (e) and (g). In contrast, at least 30.0 percent of respondents disagree with statements (c) and (f).

## APPENDIX D. RESULTS OF WHOLESALER SURVEY

F1 Sample: All respondents (14 of them) were asked the following question:

“How many years have you been in business as a pharmaceutical wholesaler?”

The results are summarised below in Table D-1.

**Table D-1 Wholesaler’s Experience**

<b>Years in business</b>	<b>Number of Respondents</b>
2-5	2
5-10	4
>10	8
<b>Total</b>	<b>14</b>

The data in the table show that 8 respondents (57.1 percent) have been in the business for more than 10 years, 4 respondents (28.6 percent) have been in business for 5 to 10 years and the other 2 respondents (14.3 percent) are in business for 2 to 5 years.

F2 Sample: All respondents (14 of them) were asked the following question:

“How many wholesalers would you consider to be you main rivals?”

The results are summarised below in Table D-2.

**Table D-2 The Extent of Rivalry at the Distribution Level**

<b>Number of main rivals</b>	<b>Number of Respondents</b>
0	3
3	1
4	1
5	1
6	2
7	1
8	1
9	2
28	2
<b>Total</b>	<b>14</b>

The data in the table show that 3 respondents (21.4 percent) do not think that they have any main rival at the wholesale level of this distribution sector. Another three respondents (21.3 percent) believe that they have less than 6 main rivals. There are 2 respondents (14.3 percent) who consider all twenty-eight wholesalers in the pharmaceutical market as their main rivals.

F3a Sample: All respondents (14 of them) were asked the following question:

“Do you (this wholesale) have any affiliation/ business relationship with any of the following?” Respondents were presented with three distinct options from which they could select all that applied.

The results are summarised below in Table D-3.

**Table D-3 Business Relationships of Distributors**

<b>Business affiliation</b>	<b>Number of respondents</b>
Manufacturer	6
Other wholesaler	7
Other	2
<b>Total &gt; 100% because respondents could select more than one option</b>	

The data in the table show that 6 respondents (46.2 percent) are affiliated with a manufacturer and 7 respondents (50.0 percent) are affiliated with ‘other wholesalers’. There were 2 respondents who indicated that they have a business affiliation with ‘other’ players in the distribution sector but refrained from specifying with whom they had the relationship.

F3b Sample: Only respondents who indicated in question F3a that they were affiliated with another player in the distribution sector were asked the following question:

“...please describe the affiliation or business relationship”.

The results are summarised below in Table D-4 and Table D-5.

**Table D-4 Types of Business Relationships of Distributors**

<b>Type of relationship</b>	<b>Manufacturer</b>	<b>Other wholesaler</b>	<b>Other</b>	<b>Total</b>
Owner/ subsidiary	1	--	--	1
Interlocking directors	--	--	--	--
Belong to the same group	1	1	--	2
Other	5	4	1	10
<b>Total</b>	<b>7</b>	<b>5.05</b>	<b>1</b>	<b>13</b>

The data in the table shows that 7 respondents have business relationships with manufacturers of pharmaceutical products. It shows that 1 respondent share an owner/ subsidiary relationship with the manufacturer while in another instance, the respondent belongs to the same business group as the manufacturer. The other 5 respondents expressed other types of relationships with manufacturers. These other relationships are explored in the table below. A total of 5 respondents indicated that they have business relationships with ‘other wholesalers’ of pharmaceuticals. In one case, the wholesaler belongs to the same group as the other wholesaler. The other 4 respondents indicated that they have other types of business relationships.

**Table D-5 Other Types of Relationships of Wholesalers**

<b>‘other’ types of relationships with mfg and other wholesalers</b>	<b>Manufacturer</b>	<b>Other wholesaler</b>
External business partners	1	1
Principal/agent	1	--
Sole distributors	1	--
Strategic partners	2	1
Buyer/seller	--	1
Middlemen	--	1
<b>Total</b>	<b>5</b>	<b>4</b>

The table above summarises the other types of relationships between wholesalers and other players in the pharmaceutical industry. The other types of relationships with manufacturers include ‘external business partners’ (1 respondent), ‘principal-agent relationship’ (1 respondent), ‘sole distributor dealings’ (1 respondent) and ‘strategic

partners' (2 respondents). The other types of relationship with 'other wholesalers' of pharmaceutical products include 'external business partners', 'strategic partners', 'buyer/seller relationship' and 'middleman' relationship.

Q1a Sample: All respondents (14 of them) were asked the following question:

“Are there any actions by anyone which have adversely affected your ability to distribute prescription drugs to retailers?”

The results are summarised below in Table D-6.

**Table D-6 Has any Action Been Taken which Restricts the Distribution of Drugs?**

<b>Adverse actions against your business?</b>	<b>Number of respondents</b>
Yes	6
No	8
<b>Total</b>	<b>14</b>

The results in the table shows that 6 respondents indicate that their ability to distribute prescription drugs to retailers have been adversely affected by actions taken by other players in the market. Details with regard to the offending players are provided in question q1b.

Q1b Sample: Only respondents (6 of them) who indicated in question q1a that they have been adversely affected by the actions of someone else were asked the following question:

“Who carried out the act?”

The results are summarised below in Table D-7.

**Table D-7 Businesses Alleged to be Engaged in Restrictive Practices**

<b>Offending parties</b>	<b>Number of respondents</b>
Physicians	1
Retailers	1
Other wholesalers	1
Other	
- Ministry of Health (MoH)	1
- Pharmaceutical companies	1
- regulatory bodies	1
<b>Total &gt; 100% due to errors in rounding</b>	<b>6</b>

The results in the table shows that physicians, retailers and ‘other wholesalers’ were each identified as adversely affecting 1 respondent. The other 3 respondents indicated that they were adversely affected by players other than those listed in the table. These other sources are pharmaceutical companies, the Ministry of Health and other regulatory bodies.

Q1c Sample: Only respondents (6 of them) who indicated in question q1a that they have been adversely affected by the actions of someone else were asked the following question:

“Provide details of the action”

The results are summarised below in Table D-8.

**Table D-8 Details of Alleged Restrictive Practices by Offender**

<b>Offending parties</b>	<b>Details of allegations</b>	<b>Number</b>
Physicians		
Retailers	“Parallel importation of drugs.”	1
Other wholesalers	“Parallel importation of drugs.”	1
Other		
- MoH	“Long registration process at MOH and the fee charged per drug presentation.”	1
- Pharmaceutical companies	“Gifts are given to physicians and pharmacists in exchange for promoting their drug.”	1
<b>Total</b>		<b>5</b>

The results show that 2 wholesalers are adversely affected by alleged parallel importation of pharmaceutical products by retailers and other wholesalers. One respondent also



indicated that the lengthy registration process required by the Ministry of Health and the fact that a fee is charge for each drug presentation are adversely affecting his business. A concern of another respondent is that pharmaceutical companies are allegedly bribing pharmacists and physicians in return for promotion of their drug. The other respondent the decision of regulatory bodies to reclassify an OTC drug to one which had to be sold behind the counter has adversely affected his business.<sup>43</sup>

Q1d Sample: Only respondents (6 of them) who indicated in question Q1a that they have been adversely affected by the actions of someone else were asked the following question:

“Did you take any step to address the actions?”

The results are summarised below in Table D-9.

**Table D-9 Do Distributors Take Steps to Resolve Issues with other Businesses?**

<b>Did you attempt to address the problem?</b>	<b>Number of Respondents</b>
Yes	3
No	2
<b>Total</b>	<b>5</b>

The table shows that only 3 of the 5 respondents indicated that they attempted to have the matter addressed.

Q1e Sample: Only respondents (3 of them) who indicated in question Q1d that they attempted to address the actions which were adversely affecting their business were asked the following question:

“Was the matter satisfactorily resolved?”

The results are summarised below in Table D-10.

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<sup>43</sup> The regulatory body referred to is the Ministry of Health (MoH) which is in charge of the classification of drugs in Jamaica.

**Table D-10 Are Distributors Satisfied with how Matters are Resolved?**

<b>Was the matter satisfactorily resolved?</b>	<b>Number of Respondents</b>
Yes	0
No	3
<b>Total</b>	<b>3</b>

The table shows that none of the respondents were satisfied with the manner in which the matter was resolved.

Q2 Sample: All respondents (14 of them) were asked the following question:

“Do you have any contractual or other arrangement with any of the following?”

The results are summarised below in Table D-11.

**Table D-11 Contractual Arrangements, by Distribution Level**

<b>Contractual parties</b>	<b>Number of respondents</b>
Physicians	0
Retailer	5
Manufacturers	8
Other wholesalers	3
HMO	1
Other	1
<b>Total &gt; sample size because respondents could select multiple options</b>	<b>18</b>

The table shows that five respondents have contractual arrangements with retailers; four with manufacturers; three with other wholesalers and one each with HMO and ‘other’ market players.

Q3a Sample: Only respondents who indicated in question q2 that they had contractual arrangements with at least one market player were asked the following question:

“Do these contractual arrangements restrict your ability to SOURCE prescription drugs?”

The results are summarised below in Table D-12.

**Table D-12 Do Contractual Arrangements Restrict Distributors in Sourcing Rx?**

<b>Do contractual arrangements restrict your ability to source drugs?</b>	<b>Number of Respondents entering into contractual arrangements</b>	<b>Number of respondents with contracts which restrict sourcing drugs</b>
Retailers	5	0
Manufacturers	8	3
Other wholesalers	3	0
HMO	1	0
Other	1	1
<b>Total &gt; sample size because respondents could select more than one option</b>	<b>18</b>	<b>4</b>

The table shows that only respondents with contractual arrangements with manufacturers and ‘other’ players were restricted in their ability to source prescription drugs. The ability of 3 of the 8 respondents with contractual arrangements with manufacturers to source drugs was restricted. The arrangement with ‘other’ market player was also restricted the ability of the wholesaler to source drugs. Details of the restrictions are provided in question q3a.

Q3b Sample: Only respondents (3 of them) who indicated in question q3a that they had restrictive contractual arrangements were given the following instruction:

“...explain your answer”

The results are presented below in Table D-13.

**Table D-13 Description of Restrictive Contractual Arrangements**

<b>Contractual party</b>	<b>Nature of restriction</b>	<b>Number of respondents</b>
Manufacturer	Manufacturer restricts us from selling competing products.	1
	Manufacturer restricts us from selling generic versions of the brands they supply	2
<b>Total</b>		<b>3</b>

Q3c Sample: All respondents (3 of them) who indicated in question q3a that they had restrictive contractual arrangements were asked the following question:

“Are there any (other) actions which have negatively affected your ability to source drugs?”

The results are summarised below in Table D-14.

**Table D-14 Are Distributors Restricted by other actions in Sourcing Drugs?**

	<b>Number of Respondents</b>
Yes	2
No	1
<b>Total</b>	<b>3</b>

The data in the table shows that the ability of two respondents to source prescription drugs was adversely affected by actions outside of contractual arrangements. The details of the actions are provided in responses to question q3d.

Q3d Sample: All respondents (2 of them) who indicated in question q3c that they were adversely affected by actions other than contractual arrangements were asked the following question:

“Please provide details”

The results are summarised below in Table D-15.

**Table D-15 Details of Restrictive Actions**

<b>Details</b>	<b>Number of Respondents</b>
“MoH does not allow drugs to be registered in June while it is on patent”	1
“Long registration process at the MoH”	1
<b>Total</b>	<b>2</b>

The details captures in the table indicates that the registration process of the Ministry of Health (MoH) is a concern for both respondents.

Q3e Sample: All respondents (2 of them) who indicated in question Q3c that they were adversely affected by actions other than contractual arrangements were asked the following question:

“Did you make any attempt to resolve the matter?”

The results are summarised below in Table D-16.

**Table D-16 Do Distributors Try to Get the Matter Resolved?**

<b>Did you attempt to resolve the matter?</b>	<b>Number of Respondents</b>
Yes	0
No	2
<b>Total</b>	<b>2</b>

The table indicates that none of the respondents made an attempt to resolve the concern they have with the registration process at the MoH.

Q3f Base: Only respondents who indicated in question q2 that they entered into contractual arrangements with at least one market player were asked the following question:

“Do these contractual arrangements restrict your ability to SUPPLY prescription drugs?”

The results are summarised below in Table D-17.

**Table D-17 Do Contractual Arrangements Restrict Distributors in Supplying Rx?**

	<b>Number of Respondents</b>	<b>Do contracts restrict your ability to supply drugs?</b>	
		Yes	No
Physician	1	0	1
Retailer	5	1	4
Manufacturer	7	1	6
Other wholesaler	2	0	2
Other	1	0	1
<b>Total &gt; sample size because respondents could enter into contracts with more than one market player</b>	<b>16</b>	<b>2</b>	<b>14</b>

The table shows that 1 out of the 5 respondents who entered into contractual arrangements with retailers was restricted in his ability to supply drugs. It also shows that 1 of the 7 respondents who entered into contractual arrangements with manufacturers were similarly restricted. The contractual arrangements with the other market players did not restrict the respondents' ability to supply drugs.

Q4c Sample: All respondents (14 of them) were asked the following question:

“Are there any (other) actions which have adversely affected your ability to supply drugs?”

The results are summarised below in Table D-18.

**Table D-18 Are Distributors restricted by other actions in Supplying Drugs?**

<b>Are there any actions which have adversely affected your ability to supply drugs?</b>	<b>Number of respondents</b>
Yes	3
No	9
<b>Total</b>	<b>12</b>

The table shows that 3 out of 12 respondents indicated that their ability to supply drugs was adversely affected by some action taken by other market players. Details are provided in responses to question q4d.

Q4d Base: Only respondents (3 of them) who indicated in question Q4c that they were adversely affected were asked the following question:

“Please specify the action”

The results are summarised below in Table D-19.

**Table D-19 Details of Restrictive Actions being faced by Distributors**

Details of action	Number of respondents
“Lengthy registration process at MoH”	1
“Drugs containing pseudo-epinephrine were previously available over the counter [OTC] but now the regulatory bodies have stipulated that they are sold behind the counter. These drugs are obtained OTC in the drugstores of USA. It ridiculous to for regulators to prevent the selling of these drugs OTC.”	1
[The Pharmacy Council of Jamaica] ...require wholesalers to have registered pharmacists. This leads to higher than necessary costs.	1
<b>Total</b>	<b>.3</b>

The table provides details of activities that adversely affected the respondent’s ability to supply drugs. All three actions were linked to the activities of regulatory bodies. The first two reasons listed relate to activities of the Ministry of Health and the third activity relates to the activities of the Pharmacy council of Jamaica (PCJ).

Q4e Base: Only respondents (3 of them) who indicated in question Q4c that they were adversely affected were asked the following question:

“Did you make any attempt to seek redress for any of the actions?”

The results are summarised below in Table D-20.

**Table D-20 Do Distributors Seek to Resolve the Issues?**

	Number of Respondents
Yes	2
No	1
<b>Total</b>	<b>3</b>

The table shows that two of the three respondents attempted to get redress. The details of the steps taken to address the problem are provided in responses to question q4f.

Q4f Base: Only respondents (2 of them) who indicated in question Q4e that they made an attempt to address the problem were asked to respond to the following:

“Explain the action taken.”

The results are summarised below in Table D-21.

**Table D-21 How do Distributors try to Resolve the Matter?**

	<b>Number of Respondents</b>
“Lobbying and meeting with persons from [Ministry of Health] MoH validate any queries”	1
“Discussed the issue with the relevant regulatory bodies and pointed out the anomaly”	1
<b>Total</b>	<b>2</b>

The table above indicates that both respondents approached the regulatory bodies (Ministry of Health [MoH] and Pharmacy Council of Jamaica [PCJ]) in attempting to resolve the matters.

Q5a Base: All respondents (14 of them) were asked the following question:

“Do your suppliers of prescription drugs recommend the price at which you should resell the products they supply you with?”

The results are summarised below in Table D-22.

**Table D-22 The incidence of Manufacturer’s Suggested Resale Prices**

	<b>Number of respondents</b>
Yes	4
No	10
<b>Total</b>	<b>14</b>

The table shows that only 4 of the 14 respondents faced recommended resale prices by their suppliers. The ailments that are treated by the drugs with recommended resale prices are highlighted in responses to question q5b.



Q5b Base: Only respondents who indicated in question Q5a that they faced recommended resale price from suppliers (4 of them) were asked the following question:

“Select all ailments this (these) drug(s) is (are) used to treat?”

The results are summarised below in Table D-23.

**Table D-23 The Incidence of Manufacturer’s Suggested Resale Prices by Ailment**

	<b>Number of respondents</b>
Arthritis	1
Asthma	1
High cholesterol	1
Diabetes	1
Hypertension	1
None of the above	3
<b>Total &gt; sample size because respondents could select more than one option</b>	<b>8</b>

The table shows that respondents face recommended resale price on drugs used to treat all the chronic ailments that are the focus of the study.

Q5c Base: Only respondents (4 of them) who indicated in question q5a that they faced recommended resale price from suppliers were asked the following question:

“Would you be penalized by your supplier for not adhering to the recommendations?”

The results are summarised below in Table D-24.

**Table D-24 The Incidence of Resale Price Maintenance**

	<b>Number of Respondents</b>
Yes	2
No	2
<b>Total</b>	<b>4</b>

The table shows that 2 of the 4 respondents who faced recommended resale price by their suppliers indicated that they would be penalised for not adhering to the recommended prices.

Q6a Base: All respondents (14 of them) were asked the following question:

“Do you recommend the price at which your retailers should resell any product [that] you supply to them?”

The results are summarised below in Table D-25.

**Table D-25 The Incidence of Distributor’s Suggested Resale Price**

	<b>Number of Respondents</b>
Yes	2
No	12
<b>Total</b>	<b>14</b>

The table shows that 2 respondents recommend to their retailers, the price at which their products should be resold.

Q6b Base: Only respondents (2 of them) who indicated in question q6a that they recommend resale price to their retailers were asked to respond to the following:

“Identify the ailment(s) these drugs are used to treat.”

The results are summarised below in Table D-26.

**Table D-26 Incidence of Suggested Resale Price among Distributors, by Ailment**

	<b>Number of Respondents</b>
Arthritis	2
Asthma	1
High cholesterol	1
Diabetes	2
Hypertension	2
<b>Total &gt; sample size because respondents could select more than one option</b>	<b>8</b>

The table above shows that prices were recommended for drugs used to treat all the chronic ailments listed. Both respondents recommended the resale price for drugs used to treat arthritis, diabetes and hypertension whilst only one respondent recommended prices for drugs used to treat asthma or high cholesterol.

Q6c Base: Only respondents who indicated in question q6a that they recommend resale price to their retailers (2 of them) were asked to respond to the following:

“Is there any penalty for not adhering to recommendations?”

The results are summarised below in Table D-27.

**Table D-27 Incidence of Resale Price Maintenance among Distributors**

	<b>Number of Respondents</b>
Yes	0
No	2
<b>Total</b>	<b>2</b>

Neither respondent indicated that they imposed penalties for retailers who do not adopt recommended resale prices.

Q7 Base: All respondents (14 of them) were given the following instruction:

“Name all the places you think you could get redress for any problem encountered in the health care industry”

The results are summarised below in Table D-28.

**Table D-28 Places Distributors are aware that they could go for Redress**

<b>Places for redress</b>	<b>Number of respondents</b>
CAC, Court, FTC	1
Court, FTC	1
Contracts Commission, FTC	1
FTC, JCC, MoH	1
FTC, MoH, PCJ	1
MoH	1
JCC, MoH, PCJ	1
Ministry of Industry, Technology Energy and Commerce (MITEC), Ministry of Finance (MoF), MoH	1
MoH, PCJ	3
Bureau of Standards Jamaica (BSJ), FTC, MoH, PCJ	1
JCC, MoH, PCJ, PSJ	1
Court	1
<b>Total</b>	<b>14</b>

The table shows that a total of 11 places were identified by the 14 respondents; 10 regulatory bodies and one private umbrella organisation (JCC). The table also shows that 10 of the 14 respondents identify the Ministry of Health as a place through which they could seek redress for problems encountered in the industry. The FTC was identified by 5 respondents.

Q8a Base: All respondents (14 of them) were asked the following question:

“Has the Health Corporation Limited (HCL) or the National Health Fund (NHF) impacted on your company in any way?”

The results are summarised below in Table D-29.

**Table D-29 Has the HCL/NHF Impacted Distributors?**

	<b>Number of Respondents</b>
Yes	13
No	0
<b>Total</b>	<b>13</b>

All 13 respondents indicated that the NHF and HCL have impacted on their businesses.

Q8b Base: Only respondents (13 of them) who indicated in question q8a that they were affected by the NHF or HCL were asked to respond to the following open ended statement:

“Please explain”

The results are summarised below in Table D-30.

**Table D-30 Description of Impact of HCL/NHF on Distributors**

<b>Details of how HCL/NHF affects wholesalers</b>	<b>Number of Respondents</b>
HCL is a customer	7
HCL is a business partner	1
HCL is a rival/ divert business	2
NHF is a customer	3
<b>Total</b>	<b>13</b>

The table shows that the HCL/ NHF purchased drugs from 8 of the 13 respondents. There was one respondent who indicated that HCL was a ‘partner’ but failed to elaborate on the precise nature of the partnership. There were 2 respondents who reported being adversely affected by the HCL who they contend is diverting business away from them.

Q9a Base: All respondents (14 of them) were asked given the following instruction:

“Are there any actions/policies by the Government which might have negatively affected your ability to source and/or distribute prescription drugs?”

The results are summarised below in Table D-31.

**Table D-31 Do Govt Policies Adversely Affect the Sourcing/ Distribution of Rx**

	<b>Number of Respondents</b>
Yes	8
No	6
<b>Total</b>	<b>14</b>

The table shows that 8 of the 14 respondents believe that they were adversely affected by Government policies. The other 6 respondents do not share this belief. Details of the adverse action/policies are provided in the responses to question q9b.

Q9b Base: Only respondents (8 of them) who indicate in question q9a that they were adversely affected by Government policies were asked to respond to the following open ended instruction:

“Provide details”

The results are summarised below in Table D-32.

**Table D-32 Government Policies Adversely Affecting Distributor**

<b>Details of adverse Government polices</b>	<b>Number of Respondents</b>
Lengthy registration process at Ministry of Health (MoH)	5
Slow process at Customs	1
“Customs charge duty on intravenous (IV) fluids retroactively. Duty is not charged to all companies, just a few.”	1
“The Government requires that their chemist do all analytical tests but some tests are necessary but not done. Also, sometimes they take too long to do the tests and send back the results to the company.”	1
<b>Total</b>	<b>8</b>

The table shows that the primary concern of 5 respondents is the delay experienced while registering drugs at the MoH. Further, 1 respondent is concerned about discriminatory behaviour by Customs in the sense that duties are not being levied on all businesses.

Q9c Base: Only respondents (8 of them) who indicated in question q9a that they were adversely affected by Government polices were asked to respond to the following open ended statement:

“Were any steps taken by you or anyone else to address the issue?”

The results are summarised below in Table D-33.

**Table D-33 Do Distributors Take Steps to Resolve Issues with Govt Policies?**

<b>Were steps taken to address the issue?</b>	<b>Number of Respondents</b>
Yes	3
No	5
<b>Total</b>	<b>8</b>

The table shows that 3 of the 8 respondents took steps to address the issue whilst 5 did not take any step.

Q9d Base: Only respondents (3 of them) who indicated in question Q9c that they took steps to address the adverse Government policy were asked the following question:

“How was the matter resolved?”

The results are summarised below in Table D-34.

**Table D-34 Are the Matters faced by Distributors with Govt Resolved?**

<b>How was the matter resolved?</b>	<b>Number of Respondents</b>
Still unresolved	1
Dispute resolution	1
Other	1
<b>Total</b>	<b>3</b>

The table shows that, of the 3 Government policies/ activities which were adversely affecting the respondents, one was ‘still unresolved’, one went to ‘dispute resolution’ and the other was resolved through ‘other’ means. The ‘other’ means referred to entailed a ‘visit to the Customs’

Q9e Base: Only respondents (8 of them) who indicated in question q9a that they were adversely affected by Government policy were asked the following question:

“What suggestions do you have to correct the issue?”

The results are summarised below in Table D-35.

**Table D-35 Suggestions by Distributors for Remedying Problems Faced with Govt**

<b>Problems with Government activities</b>	<b>Suggestions</b>
Lengthy registration process at MoH	i.) MoH should hire additional staff; ii.) More staff at MOH and laboratories to analyse the drugs. More resources to make the first two possible; iii.) Automate the registration system; and iv.) Regulators should have more discretion in implementing rules.
“Customs charge duty on intravenous (IV) fluids retroactively. Duty is not charged to all companies, just a few.”	“Harmonize duty laws; publicize classification of IV fluids so that all companies importing fluids will pay the same [duty].”
“The Government requires that their chemist do all analytical tests but some tests are necessary but not done. Also, sometimes they take too long to do the tests and send back the results to the company.”	i. “Government should employ a pharmacist”; ii. “Hire more staff at the Government chemist; do not require tests that the chemist is not able to do.”

The table above indicate that respondents believe that additional resources at the Ministry of Health and transparency in the levying of duties at the Customs office would alleviate the problems they have with the respective regulatory bodies.

Q10 Base: All respondents (14 of them) were asked the following question:

“Which of the following businesses do you supply prescription drugs?”

The results are summarised below in Table D-36.

**Table D-36 Distribution of Rx, by retailers**

<b>Enterprises supplied by wholesaler</b>	<b>Number of Respondents</b>
Pharmacies	13
Private hospital	12
Public hospitals	13
Medical centres	10
Clinics	9
Physician's Office	12
Wholesalers	7
'other'	3
<b>Total &gt; base because respondents could select more than one option</b>	<b>79</b>



The table shows that most respondents supply prescription drugs to pharmacies, physician's offices, and hospitals. The table shows also that 9 respondents to clinics and 7 respondents supply to wholesalers.

Q11a Base: All respondents (14 of them) were asked the following question:

“Do you supply prescription drugs to treat the following?”

The results are summarised below in Table D-37.

**Table D-37 Distribution of Rx, by Ailment**

<b>Ailment</b>	<b>Number of Respondents supplying drugs to treat the respective ailments</b>
Arthritis	9
Asthma	10
High cholesterol	6
Diabetes	8
Hypertension	11
<b>Total &gt; base because wholesalers distribute drugs to treat more than one ailment</b>	<b>44</b>

The table shows that there was no ailment for which prescription drugs were supplied by all 14 respondents. A total of 11 respondents supplied drugs used to treat hypertension, 10 supplied medication for asthmatics and 9 respondents supplied drugs used to treat arthritis. High cholesterol has the fewest number of wholesaler distributors with only 6 suppliers.

Q11b Base: All respondents (14 of them) were asked the following question:

“For the ailments you have selected above, what type of drug, generic or innovator do you supply?”

The results are summarised below in Table D-38.

**Table D-38 Type of Rx Distributed by Ailment**

Ailment	Number of Respondents	Type of drug		
		Generic	Innovator	both
Arthritis	9	5	1	3
Asthma	10	3	2	5
High cholesterol	6	--	--	6
Diabetes	8	2	2	4
Hypertension	11	5	1	5
<b>Total &gt; base because wholesalers distribute drugs to treat more than one ailment</b>	<b>44</b>	<b>15</b>	<b>6</b>	<b>23</b>

The table shows that drugs used to treat four of the five ailments listed above were supplied by wholesalers who specialised in either form of the drug, as well as supplied by wholesalers who offered both types. High cholesterol was unique in the sense that none of the 6 wholesalers who supplied drugs used to treat this ailment specialised in either form of the drug.

Q12 Base: All respondents (14 of them) were asked the following question:

“For the prescription drugs [that] you distribute, out of 100 what is the ratio of innovator to generic?”

The results are summarised below in Table D-39.

**Table D-39 Ratio of Generic Rx Distributed**

% of prescription drugs which are generics	Number of Respondents
0	2
10	2
30	3
34	1
90	2
100	3
<b>Total</b>	<b>13</b>

The table shows that there are 2 wholesalers which do not distribute generic drugs and 3 wholesalers which do not distribute innovator drugs. For 8 respondents, generic drugs represented less than 35 percent of their distribution of prescription drugs where as there

are 5 respondents whose stock of generics represented at least 90 percent of their distribution.

Q13 Base: All respondents (14 of them) were asked the following question:

“What factors influence the types of drug [that] you stock/ distribute?”

The results are summarised below in Table D-40.

**Table D-40 Main Factors Influencing Type of Drugs Distributed**

<b>Influence</b>	<b>Number of Respondents</b>
Advertisement	1
Demand for the drug	13
Reputation of the drug	11
Retailers recommended / Request	8
Incentives provided by manufacturers	2
Newness/ innovativeness	6
Profit margin on the drug	4
Other	8
<b>Total &gt; base because respondents were allowed to select more than one option</b>	<b>53</b>
Other reasons cited are listed below:	
(i) VEN (vital, essential and necessary) drugs; (ii) Availability; (iii) effectiveness and reliability; (iv) needs; (v) manufacturing company (vi) Parent company's forecast (vii) If they are approach by a manufacturer (viii) What the manufacturer has supplied	

The table shows that the demand for drug and its ‘reputation’ prevails as the most common influences among respondents on the types of drugs they distribute distributed. A total of 13 respondents indicated that demand for a drug influence their decision on which drugs to distribute while 11 respondents indicated that the ‘reputation’ was influential. It is clear the respondents are generally not influenced by advertisement as only 1 respondent indicates that this is an influential factor in his choice of which drug to distribute. It is useful to note that 2 respondents indicate that ‘incentives provided by

manufacturers' would affect the decision to distribute a particular drug. Surprisingly, only 4 respondents indicated that the profit margin was a significant influence. Other influences offered by the respondents also appear in the table.

Q14a Base: All respondents (14 of them) were asked the following question:

“Do you manufacture any of the drugs [that] you distribute?”

The results are summarised below in Table D-41.

**Table D-41 Do Distributors Manufacture any of the Drugs that they Distribute?**

	<b>Number of Respondents</b>
Yes	1
No	13
<b>Total</b>	<b>14</b>

The table shows that only one of the respondents manufactures any of the drugs it distributes.

Q14b Base: Only the respondent who indicated in q14a that he manufactures drugs that he distributes was asked the following question:

“What ailments are these drugs used to treat?”

The results are summarised below in Table D-42.

**Table D-42 Drugs Manufactured domestically, by Ailment**

	<b>Number of Respondents</b>
Arthritis	0
Asthma	1
High Cholesterol	0
Diabetes	0
Hypertension	1
<b>Total</b>	<b>2</b>

The table shows that the respondent manufactures drugs used to treat asthma and hypertension.

Q15a Base: All respondents (14 of them) were instructed as follows:

“For each of the following ailments, indicate whether you receive all your prescription drugs from a single manufacturer”

The results are summarised below in Table D-43.

**Table D-43 Incidence of Single Sourcing of Distributors, by Ailment**

Ailments	Number of Respondents	Do you receive prescription drugs from single supplier?	
		Yes	no
Arthritis	9	4	5
Asthma	10	6	4
High cholesterol	6	1	5
Diabetes	8	4	4
Hypertension	10	4	6
Other	5	2	3

For four of the five ailments listed in the table, the number of respondents which are supplied by a single manufacturer seems to be roughly equal to the number of respondents which are supplied by more than one manufacturer. The only ailment which appears to be the exception to this general rule is ‘high cholesterol’ for which only 1 of the 6 distributors of drugs used to treat this ailment is supplied by a single supplier.

Q15a Base: All respondents (14 of them) were asked the following question:

“What is the main reason for... [receiving/ not receiving all your prescription drugs from a single source]?”

The results are summarised below in Table D-44.

**Table D-44 Main Reasons for Single Sourcing of Distributors, by Ailment**

Ailments	Main reason	
	Single source	Multiple sources
Arthritis	i.) "We use a particular company as the supplier for many drugs"; ii.) "The supplier offers the best quality"; iii.) "Best quality"; and iv.) "Special relationship with the manufacturer."	i.) "We go through an international tendering system"; ii.) "Depends on the type of drug, what form it comes in"; iii.) "Different drugs are bought from different manufacturers because of where the drug is available"; iv.) "We buy from many companies in [an] effort to get [the] best price where [the] drug is available"; and v.) "One manufacturer owns the company and the other has an arrangement with us."
Asthma	i.) "We use a particular company as the supplier for many drugs"; ii.) "Depends on the type of drug, what form it comes in"; iii.) "Manufactured by us"; iv.) "Best quality"; and v.) "Product is the market leader"	i.) "We go through an international tendering system"; ii.) "Different drugs are bought from different manufacturers because of where the drug is available"; iii.) "One offers the generic and the other offers the innovator"
High cholesterol	i.) "We use a particular company as the supplier for many drugs";	i.) "We go through an international tendering system"; ii.) "Depends on the type of drug, what form it comes in"; iii.) "Different drugs are bought from different manufacturers because of where the drug is available"; iv.) "One offers the generic and the other offers the innovator"; and v.) "We buy from many companies in [an] effort to get [the] best price where [the] drug is available."
Diabetes	i.) "We use a particular company as the supplier for many drugs"; ii.) "The supplier offers the best quality"; and iii.) "Best quality."	i.) "We go through an international tendering system"; ii.) "Depends on the type of drug, what form it comes in"; and iii.) "Different drugs are bought from different manufacturers because of where the drug is available."
Hypertension	i.) "We use a particular company as the supplier for many drugs"; ii.) "Depends on the type of drug, what form it comes in"; and iii.) "It allows us to spread freight costs".	i.) "We go through an international tendering system"; ii.) "Different drugs are bought from different manufacturers because of where the drug is available"; iii.) "We buy from many companies in [an] effort to get [the] best price where [the] drug is available"; and iv.) "The manufacturing companies own the distributing company"; v.) "One offers the generic and the other offers the innovator"; and vi.) "Different sub-classes are carried by different people."

The table above shows the variety of reasons respondents offer for their decision to either use one or many sources for the drugs they distribute. The main reason for having a single source is that the respondents seek to get the drug available with the highest quality. Other reasons include 'in house' production of the drugs and a 'special

relationship with the manufacturer'. The respondents who use multiple sources indicate that they do so in order to get lower prices or carry a wider variety of drugs.

Q16a Base: All respondents (14 of them) were asked the following question:

“Are you an exclusive distributor of any prescription drugs in Jamaica?”

The results are summarised below in

Table D-45.

**Table D-45 Incidence of Exclusive Distribution of Rx**

	Number of Respondents
Yes	10
No	3
<b>Total</b>	<b>13</b>
Number of non-responses=1	

The table shows that 10 respondents were exclusive distributors of at least one drug they distribute in Jamaica. The other 3 respondents do not exclusively distribute any drug in Jamaica.

Q16b Base: All respondents (14 of them) were asked the following question:

“Are any of the drugs you exclusively distribute used to treat any of the following ailments?”

The results are summarised below in Table D-46.

**Table D-46 Incidence of Exclusive Distribution of Rx, by Ailment**

	Total	Number of Respondents	
		Yes	no
Arthritis	10	3	7
Asthma	9	1	8
High Cholesterol	10	2	8
Diabetes	10	3	7
Hypertension	10	2	8
Other	7	4	3

The table shows that the ailments arthritis and diabetes each has 3 respondents who each exclusively distribute at least one drug used to them. Similarly, high cholesterol and hypertension each has two respondents who exclusively distribute drugs used to treat them.

Q17a Base: All respondents (14 of them) were asked the following question:

“Is there any Parish in Jamaica to which you do not distribute your products?”

The results are summarised below in Table D-47.

**Table D-47 Incidence of Island-wide Distribution of Rx**

	<b>Number of Respondents</b>
Yes	1 (Portland)
No	13
<b>Total</b>	<b>13</b>

The table shows that only 1 respondent does not distribute throughout the island. This respondent does not distribute drugs to the Parish of Portland.

Q17b Base: The respondent who indicated in question q17a that he did not distribute to all parishes was asked the following question:

“Why do not you distribute your products to these parishes?”

The response to this question was ‘Portland is too far based on the size of the market’.

Q18a Base: All respondents (14 of them) were asked the following question:

“Do you require retailers to purchase drug Y, in order to get another drug X?”

The results are summarised below in Table D-48.



**Table D-48 Incidence of Tied-Selling among Distributors**

	<b>Number of Respondents</b>
Yes	1
No	11
<b>Total</b>	<b>12</b>

The table shows that there is one respondent who imposes as a condition for purchase of one good he distributes (drug X), the purchase of another good (drug Y) that he distributes.

Q18b Base: Only the respondents who indicated in question q18a that he ‘requires retailers to purchase drug Y in order to get drug X’ were asked the following question:

“Which of the following ailments is Drug X used to treat?”

The results are summarised below in Table D-49.

**Table D-49 Tied-Selling, by Ailment**

	<b>Number of Respondents</b>
Arthritis	0
Asthma	1
High Cholesterol	0
Diabetes	0
Hypertension	1
Other	0
<b>Total</b>	<b>2</b>

The table shows that the respondent uses drugs developed to treat asthma and hypertension in order to force retailers to purchase other drugs he carries.

Q19 Base: All respondents (14 of them) were asked the following question:

“Would you say that the period in which you have been operating as a wholesaler that a greater number of consumers have been able to buy prescription drugs at more reasonable prices?”

The results are summarised below in Table D-50.

**Table D-50 Distributors' Opinion on Trends in the Price of Rx**

	<b>Number of Respondents</b>
Yes	12
No	2
<b>Total</b>	<b>14</b>

The table shows that 12 respondents believe that more consumers are benefiting from more reasonably priced prescription drugs. There were 2 respondents who did not share this belief.

Q20a Base: All respondents (14 of them) were asked the following question:

“Please select one of the following [options to complete the sentence]: ‘During the period in which I have been operating as a wholesaler of prescription drugs, I’ve seen \_\_\_\_\_ in the distribution of prescription drugs in Jamaica’”

The results are summarised below in Table D-51.

**Table D-51 Distributors' Opinion on Trend in the Distribution of Rx**

	<b>Number of Respondents</b>
A considerable improvement	9
A slight improvement	5
No difference	0
A slight decline	0
A significant decline	0
<b>Total</b>	<b>14</b>

The results show that all 14 respondents have seen an improvement in the distribution of prescription drugs. A total of 9 respondents were of the opinion that the improvement was ‘considerable’ whilst the other 5 respondents thought the improvement was ‘slight’.

Q20b Base: All respondents (14 of them) were asked the following question:

“To what aspect of the distribution are you referring?” Four options were provided with the opportunity to specify an additional one.

The results are summarised below in Table D-52.

**Table D-52 Features of the Distribution Chain which have improved/deteriorated**

Features of the distribution		Overall assessment of the distribution (q20a)	
		Slight improvement	Considerable improvement
Improvement in time of delivery to retailers?	Yes	2	6
	No	3	3
More variety of drugs being distributed in Jamaica?	Yes	1	6
	No	4	3
Improvement in the areas in which the drugs are being distributed?	Yes	2	4
	No	3	5
Improvements in Government regulations within the industry?	Yes	0	4
	No	5	5

Although all 14 respondents indicated that there was an overall improvement in the distribution of prescription drugs, the table shows differences in assessments of various aspects of the distribution. For instance, 6 respondents did not think there was an improvement in the time of delivery to retailers and 7 respondents were not impressed with the variety of drugs being distributed. It is interesting to note that 4 respondents who held the view that there was an overall ‘considerable’ improvement in the distribution, thought that there were improvements in Government regulations within the industry.

Q21a Base: All respondents (14 of them) were asked the following question:

“Do you think there is a need for more Jamaicans to have access to reasonably priced, effective prescription drugs?”

All 14 respondents think there is a need for more Jamaicans to have access to more reasonably priced, effective prescription drugs?

Q21b Base: All respondents (14 of them) were asked the following question:

“What steps could be taken by the Government to ensure that reasonably priced, effective prescription drugs are available to more Jamaicans?”

The results are summarised below in Table D-53.

**Table D-53 Recommendations for increasing access to cheaper, more effective Rx**

<b>Steps which could be taken by Government.</b>
i.) “More programs such as JADEP, NHF and Drug Serv pharmacies”; ii.) “Expand the NHF program, include more illnesses”; iii.) “Provide more medication” iv.) “Continuation of programs such as the NHF and JADEP”; v.) “Health Corporation is doing good work and that is enough”; vi.) “Government should subsidize the cost of prescriptions drugs more”; vii.) “Register drugs to companies rather than just the drug. Remove duties and taxes on drugs”; viii.) “Government should improve system for registering drugs”; ix.) “Remove tax, duties and importer cuff from certain drugs and expand the NHF program”; x.) “Remove or reduce duties and taxes on drugs. Consult stakeholders before making certain policies”; xi.) “Revise taxation policy”; xii.) “Reduce or remove customs and duties on drugs”; and xiii.) “More staff at MOH, increase registration fee so they can afford to pay more staff”;

The table lists suggestions by thirteen respondents. The first five suggestions argue for a continuation or expansion of Government programs geared toward providing subsidized medication. The next two suggestions require the improvement of the system in place to register drugs in Jamaica. There were four suggestions calling for a revision in the taxation policy for drugs. The last suggestion on the list calls for an increase in registration fees in order to be able to increase the staff complement.

Q22a Base: All respondents (14 of them) were asked the following question:

“Are you a member of any registered trade association for wholesalers of pharmaceutical products in Jamaica?”

The results are summarised below in Table D-54.

**Table D-54 Incidence of Membership in Trade Associations**

	<b>Number of Respondents</b>
Yes	10
No	4
<b>Total</b>	<b>14</b>

The table shows that 10 of the 14 respondents were members of at least trade association in Jamaica.

Q22b Base: Only respondents who indicated in question Q22a that they were a member a trade association (10 of them) were asked the following question:

“... which ...[trade association(s) are you a member of]?”

The results are summarised below in Table D-55.

**Table D-55 Trade Association Membership, by Association**

<b>Trade Associations</b>	<b>Number of Respondents</b>
Jamaica Chamber of Commerce (JCC)	6
Pharmacy Council of Jamaica (PCJ)	2
Pharmaceutical Society of Jamaica (PSJ)	5
<b>Total &gt; base because some respondents are members of more than one association</b>	<b>13</b>

The table shows that the 10 respondents were members of the JCC, PCJ, or PSJ. There are 6 respondents who are members of the JCC, 5 respondents were members of the PSJ and 2 respondents were members of the PCJ.

Q22c Base: Only respondents who indicated in question Q22a that they were a member a trade association (10 of them) were asked the following question:

“How many meetings are held in a year?”

The results are summarised below in Table D-56.

**Table D-56 Number of Meetings held in a Year, by Trade Association**

# of meetings held per year	No of respondents attending meeting			
	JCC	PCJ	PSJ	Total
1	1	1	1	3
3	0	1	0	1
4	2	0	1	3
6	1	0	0	1
12	2	0	3	5
<b>Total</b>	<b>6</b>	<b>2</b>	<b>5</b>	<b>13</b>

The table shows that of the 6 respondents who are members of the JCC, 2 indicate that twelve meetings are held annually, 1 indicate that six meeting are held, 2 indicates that four meeting are held and 1 respondent indicate that one meeting is held annually. One member of the PCJ indicates that one meeting was held annually and the other member of the PCJ indicated that three meetings were held in a year. As much as 3 members of the PSJ indicate that twelve meetings are held in a year, 1 member indicates that 4 meeting are held in a year, and the other member indicates that one meeting is held in any give year.

Q22d Base: Only respondents who indicated in question q22a that they were a member a trade association (10 of them) were asked the following question:

“Does [the Association] collect or disseminate wholesaler-specific information with regard to the distribution of prescription drugs?”

The results are summarised below in Table D-57.

**Table D-57 Do Trade Associations share distributor-specific information on R?**

Is information shared?	No of respondents attending meeting			
	JCC	PCJ	PSJ	Total
Yes	3	1	3	7
No	2	0	2	4
<b>Total</b>	<b>5</b>	<b>1</b>	<b>5</b>	<b>11</b>

The results summarised in the table indicate that 7 respondents said that ‘wholesaler-specific’ information collected or disseminated at the meetings while 4 respondents said this type of information is not distributed or collected at the meetings.

Q22e Base: Only respondents who indicated in question q22a that they were member of a trade association (10 of them) were asked the following question:

“Is information on price and/or quantity of drugs from individual wholesalers available?”

The results are summarised below in Table D-58.

**Table D-58 Is price/quantity information from individual Distributors shared?**

Is price/quantity information shared?	No of respondents attending meeting			
	JCC	PCJ	PSJ	Total
Yes	0	0	1	1
No	5	1	4	10
<b>Total</b>	<b>5</b>	<b>1</b>	<b>5</b>	<b>11</b>

The results summarised in the table indicate that one member of the PSJ said that ‘wholesaler-specific’ information on price and/or quantity of drugs is available at the meetings of the PSJ. The other ten respondents said that the information was not available at any of the meetings.

Q22f Base: Only respondents who indicated in question Q22a that they were member of a trade association (10 of them) were asked the following question:

“What other type of information is available through the association?”

The results are summarised below in Table D-59.

**Table D-59 What other types of information are available at Trade Assoc?**

Types of information available through the Association
i.) “Journals and seminars”; ii.) “Organize health fairs and seminars”; iii.) “Seminars” iv.) “Availability of a registered drug in Jamaica”; v.) “Jamaican customs and MOH regulatory information”; vi.) “Discuss laws and policies affecting the industry”; vii.) “Growth trends, employment”; viii.) “Information on newly developed drugs”; ix.) “Information on new drugs and policy changes in the industry” x.) “Updates on projects”;

The table shows that the information available at the meetings deals with issues such as, among other things, (a) changes in the regulatory environment and (b) newly developed or registered drugs.

Q23 Base: All respondents (14 of them) were asked the following question:

“How do you currently receive information on new drugs?”

The results are summarised below in Table D-60.



**Table D-60 Sources of Information on New Rx**

<b>Sources of information</b>	<b>Number of Respondents</b>
Physicians	6
Pharmacists	7
Ministry of Health	1
Internet	9
Journals	9
Manufacturers	10
Drug Reps	9
Other: i.) "International industry meetings" ii.) "Martindale"; iii.) "Continuing education programs and seminars"; iv.) "medical conventions"; v.) "Parent company"; vi.) "Sales representatives"; vii.) "Suppliers tell them when a new drug is available"; and viii.) "Trade fairs".	8
<b>Total &gt; base because respondents selected more than one source of information</b>	

The table above shows that drug manufacturers, drug representatives, medical journals and the Internet are the primary sources of information on new drugs.

Q24 Base: All respondents (14 of them) were asked the following question:

"To what extent do you provide information on prescription drugs directly to the following:"

The results are summarised below in Table D-61.

**Table D-61 To whom do Distributors provide information directly?**

	<b>Always</b>	<b>Often</b>	<b>Sometimes</b>	<b>Seldom</b>	<b>Never</b>	<b>Total</b>
Retailers	7	3	3	1	0	14
Physicians	6	2	4	2	0	14
Consumers	1	2	2	1	8	14
Other:						2
i.) HCL						
ii.) Regulating bodies and HMO	1 1					
	16	7	9	4	8	

The table shows that seven respondents ‘always’ directly provide retailers with information on prescription drugs with 3 other respondents ‘often’ doing the same. Similarly, 6 respondents ‘always’ provide information directly to physicians and 2 other respondents often doing so. One respondent indicates that they always provide information to the Health Corporation Limited (HCL) and another indicates that information is always provided to ‘regulating bodies and HMOs.’ In contrast 9 respondents indicate that they either seldom or never directly inform consumers about prescription drugs.

Q25a Base: All respondents (14 of them) were asked the following question:

“To what extent do you inform retailers of the availability of generic drugs?”

The results are summarised below in Table D-62.

**Table D-62 Extent to which Retailers are informed about Availability of Generics**

	<b>Number of Respondents</b>
Always	10
Often	1
Sometimes	1
Seldom	0
Never	1
<b>Total</b>	<b>13</b>

The table shows that ten respondents ‘always’ inform retailers of generic drugs; two respondents either often or sometimes do so. One respondent ‘never’ informs retailers of the availability of generic drugs.

Q25b Base: Only respondents who indicated in question q25a that they do not ‘always’ or ‘often’ inform retailers (2 of them) were asked the following question:

“What are your reasons for not doing so?”

The results are summarised below in Table D-63.

**Table D-63 Main Reasons for infrequently informing Retailers of Generics**

<b>Reasons for not informing retailers of availability of generic drugs</b>
i.) “Rarely have generic drugs in stock”;
ii.) “Do not distribute generic drugs”;

The table indicates that the respondents do not inform retailers of the availability of generic drugs because they either do not distribute generic drugs or rarely have generic in stock.

Q26a Base: All respondents (14 of them) were asked the following question:

“Have you ever pre-announced any change in any aspect of your business policy/strategy?”

The results are summarised below in Table D-64.

**Table D-64 Incidence of Pre-announced changes in Business Strategy**

	<b>Number of Respondents</b>
Yes	8
No	5
<b>Total</b>	<b>13</b>

The table shows that eight respondents pre-announce changes in their business strategy/policy.

Q26b Base: Only respondents who indicated in question Q26a that they pre-announce changes in business policy/strategy (8 of them) were asked the following question:

“What aspect of your business strategy do you pre-announce any change in?”

The results are summarised below in Table D-65.

**Table D-65 Which Business Strategies are Changes Pre-announced in?**

	<b>Yes</b>	<b>No</b>	<b>Total</b>
Price changes	6	2	8
Changes in availability of a drug	8	0	8
Other	3	4	7

The results show that six respondents pre-announce changes in the price of their products and eight respondents pre-announce changes in the availability of a drug. The ‘other’ changes which are pre-announced relate to changes in credit terms, delivery patterns and returns policy.

Q26c Base: Only respondents who indicated in question q26a that they pre-announce changes in price (6 of them) were asked the following question:

“To whom do you normally communicate information on price changes?”

The results are summarised below in Table D-66.

**Table D-66 To whom do Distributors Communicate Future Price Changes?**

	<b>Yes</b>	<b>No</b>	<b>Total</b>
Employees	4	2	6
Retailers	5	1	6
General public	1	5	6
Affiliated retailers	4	2	6
Affiliated wholesalers	4	2	6
Competing wholesalers	1	5	6
Other	1	5	6

The table shows that almost all of the respondents (5 of them) pre-announce information on price changes to retailers. Employees, affiliated wholesalers and affiliated retailers each receive communication from four respondents about anticipated price changes. It is interesting to note that one respondent communicate anticipated changes in his prices to ‘competing wholesalers’.

Q26d Base: Only respondents who indicated in question Q26a that they pre-announce ‘changes in availability of drug’ (8 of them) were asked the following question:

“To whom do you normally communicate information on changes in the availability of a drug?”

The results are summarised below in Table D-67.

**Table D-67 Who Do Distributors Inform of Future Changes In R Availability?**

	<b>Yes</b>	<b>No</b>	<b>Total</b>
Employees	5	3	8
Retailers	7	1	8
General public	1	7	8
Affiliated retailers	7	1	8
Affiliated wholesalers	6	2	8
Competing wholesalers	2	6	8
Other	2	6	8

The table shows that seven respondents communicate changes in the availability of a drug to retailers and affiliated retailers, six respondents communicate this information to affiliated wholesalers whereas only one respondent communicate this information to the general public. Also of interest is the fact that two respondents communicate the information to ‘competing wholesalers’.

Q26e Base: Only respondents who indicated in question q26a that they pre-announce ‘other changes’ (4 of them) were asked the following question:

“To whom do you normally communicate information on any other change?”

The results are summarised below in Table D-68.

**Table D-68 Who Do Distributors Inform of ‘Other’ Changes In Business Strategy?**

	<b>Yes</b>	<b>No</b>	<b>Total</b>
Employees	3	1	4
Retailers	3	1	4
General public	1	3	4
Affiliated retailers	2	2	4
Affiliated wholesalers	1	3	4
Competing wholesalers	0	4	4
Other	0	4	4

Table D-68 shows that three of the four respondents who pre-announce ‘other’ changes in their business strategy communicate this to employees and retailers. This ‘other’ information is not communicated to ‘competing wholesalers’ by any of the respondents.

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## **APPENDIX E. CONSUMER QUESTIONNAIRE**

### **IDRC FUNDED RESEARCH INTO THE PHARMACEUTICAL INDUSTRY**

#### **Introduction**

In November 2005 the Jamaica Fair Trading Commission (FTC) was awarded a grant to conduct research in Jamaica on the Pharmaceutical sector. This grant was made by the International Development Research Centre (IDRC) in Ottawa, Canada.

The main objective of the study is to identify factors which impact on competition within the Pharmaceutical sector; and make recommendations to the relevant policy-makers. A more competitive prescription medication market will, among other things, conduce to greater access by Jamaicans to more effective treatment of ailments.

The Consumer Affairs Commission (CAC) and the University of Technology (UTECH) are collaborating with the FTC in this effort.

#### **Confidentiality Notice to Participants**

- You have the right to abstain from participation in this research;
- You have the right to terminate your participation at any time;
- You have the right to refuse to answer any question;
- Your replies shall be held in strict confidence;
- Your identity shall be kept strictly confidential;
- At the conclusion of this research project, any information that reveals your identity shall be destroyed. No information revealing your identity shall be included in the final report or in any other communication prepared in the course of this research project **unless you consent to its inclusion in writing.**



CONSUMERS! LET YOUR VOICE BE HEARD...		For Official Use only.
Interviewer: _____		
S1. "Have you bought prescription medication in the past six (6) months?"		
1. Yes <b>Continue</b>		
2. No <b>Thank and terminate</b>		
S2. "After your Doctor writes you a prescription, who decides what type of medication, generic or branded, you buy when filling the prescription?" <b>READ OPTIONS</b>		
1. I alone influence the type of medication I buy		
2. I have majority influence over the type of medication I buy		
3. Someone else has the majority influence on the type of medication I buy		
4. Someone else completely decides on the type of medication I buy	<b>Thank and terminate</b>	
S3. "When it comes to purchasing prescription medication, which of the following applies to you?"		
1. I purchase prescription medication for myself only.		
2. I purchase prescription medication for myself and sometimes for others.		
3. I usually have someone else purchase my prescription medication for me.		
4. I purchase prescription medication for others only	<b>Thank and terminate</b>	

**\*\*D1. “To which of the following age groups do you belong?”**

1. less than 18 years	<b>Thank and terminate.</b>
2. 18 - 24 years	
3. 25 - 29 years	
4. 30 - 34 years	
5. 35 - 44 years	
6. 45 - 59 years	
7. 60 – 74 years	<b>option needed for Q23a</b>
8. 75 years and over	<b>option needed for Q23a</b>

### **INFORMATION STRUCTURE OF THE PRESCRIPTION DRUG MARKET**

**Q1a. “Are you familiar with the term ‘generic medication’?” READ OPTIONS**

1. No, I’ve never heard of ‘generic medication’. <b>SKIP TO Q30a</b>	
2. Yes, I’m familiar with the term but I’m not sure what they are <b>SKIP TO Q30a</b>	
3. Yes I’m familiar with the term but have never used them	
4. Yes I’m familiar with the term and I have used them before	
5. Yes I’m familiar with the term and I currently use them	

**Q1b. “What does the term ‘generic medication’ mean to you?”**

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**Q2. “Do you think there is a need to increase the public’s awareness of generic medication?”**

1. Yes	
2. No	
3. Maybe	

**Interviewer: Ask participant whether an ‘other’ category is needed before a rank is given.  
SHOW CARD #1**

**\*\*Q3a. “Please rank the following sources of medical advice in order of credibility where 1 is most believable, 2 is second most believable, 3 is third most believable and so on.”**

Source	Ranked Order
1. Family/ Friends	
2. Drug Manufacturers/ Importers	
3. Ministry of Health	
4. Pharmacist	
5. Doctor	
6. Testimonials (word-of-mouth from strangers who have used the medication)	
7. Internet	
8. Other (please specify): _____	

**\*\* Number 1 ranked source may be needed for Q7.**

**Q3b. “Now consider the top two sources in terms of credibility: \_\_\_\_\_ and \_\_\_\_\_ . How would you describe the information you receive from both sources?”**

1. Identical/ very similar
2. Somewhat similar
3. Somewhat different
4. Very/completely different

**Q3c. “Now consider the second and third sources in terms of credibility: \_\_\_\_\_ and \_\_\_\_\_ . How would you describe the information you receive from both?”**

1. Identical/ very similar
2. Somewhat similar
3. Somewhat different
4. Very/completely different

**Interviewer: Ask participant whether an ‘other’ source is needed before a rank is given.  
SHOW CARD #2.**

Q4. “Rank the following sources of information in order of your exposure to information on prescription medication using 1 to indicate the source that provides you with the greatest amount of information.”

	Q4a.
1. Television	
2. Radio	
3. Newspaper	
4. Flyers/ Brochures/ Magazines	
5. During visit to Doctor	
6. Internet	
7. Other (please specify):	

### **FACTORS OF DEMAND**

**\*\*Q5a.** “Which one of the following best describes your preference regarding generic and branded medication?”

- |   |
|---|
| 1. I would choose a generic medication once it is available   |
| 2. I would choose a branded medication, even if a generic medication is available <b>option needed for Q7</b> |
| 3. The type of medication I choose will depend on various factors.  |
| 4. I do not have a preference   |

<p>Q5b. "If the branded and generic medication were available to you at the same price, which would you choose?"</p> <ol style="list-style-type: none"> <li>1. I would probably choose a generic medication</li> <li>2. Either medication would do just fine</li> <li>3. I would probably choose the branded medication</li> <li>4. I do not know which I would choose</li> </ol>								
<p>Q6. "Generally speaking, compared to the price of a branded medication, a generic medication is ..."</p> <table border="1" data-bbox="259 619 787 882"> <tr><td>1. A lot more expensive</td></tr> <tr><td>2. A little more expensive</td></tr> <tr><td>3. About the same</td></tr> <tr><td>4. A little less expensive</td></tr> <tr><td>5. A lot less expensive</td></tr> <tr><td>6. I do not know <b>DO NOT READ</b></td></tr> <tr><td> </td></tr> </table>	1. A lot more expensive	2. A little more expensive	3. About the same	4. A little less expensive	5. A lot less expensive	6. I do not know <b>DO NOT READ</b>		
1. A lot more expensive								
2. A little more expensive								
3. About the same								
4. A little less expensive								
5. A lot less expensive								
6. I do not know <b>DO NOT READ</b>								
<p><b>Interviewer: NOW CHECK Q5a. ASK Q7. OF THOSE WHO Select option 2. OTHERWISE SKIP TO Q8a.</b></p> <p><b>Insert number 1 ranked source of medical advice from Q3a here: _____ &lt;#1&gt;</b></p> <p>Q7. "You mentioned that &lt;#1&gt; was your most credible source of information. If this source were to inform you that a generic medication is just as good as its branded counterpart, how likely would you be to switch from a branded medication to the generic medication?"</p>								
<table border="1" data-bbox="235 1291 738 1512"> <tr><td>1. Definitely would switch</td></tr> <tr><td>2. Probably would switch</td></tr> <tr><td>3. Might or might not switch</td></tr> <tr><td>4. Probably would not switch</td></tr> <tr><td>5. Definitely would not switch</td></tr> <tr><td> </td></tr> </table>	1. Definitely would switch	2. Probably would switch	3. Might or might not switch	4. Probably would not switch	5. Definitely would not switch			
1. Definitely would switch								
2. Probably would switch								
3. Might or might not switch								
4. Probably would not switch								
5. Definitely would not switch								
<p>❖ CONSUMER CHARACTERISTICS</p>								

**\*\*Q8a. “Indicate whether or not you have ever been treated with prescription medication for the following ailments.”**

	Q8a.	
	Yes	No
1. Arthritis	1	2
2. Asthma	1	2
3. Diabetes (Sugar)	1	2
4. Hypertension (Pressure)	1	2
5. High Cholesterol	1	2

**Interviewer: Skip to Q9a if ‘no’ is selected for all ailments in Q8a above.**

**Check the ailments for which the consumer has been treated for.**

**Then ask Q8b only for those ailments.**

**\*\*Q8b. “Which type of medication, generic or branded have you ever used to treat these ailments?”**

1. generic				
2. branded	<b>option needed for Q8d</b>			
3. both branded and generic medication	<b>option needed for Q8c</b>			
4. do not know				
	Q8b.			
	Generic	Branded	Both	Do not know
1. Arthritis	1	2	3	4
2. Asthma	1	2	3	4
3. Diabetes (Sugar)	1	2	3	4
4. Hypertension (Pressure)	1	2	3	4
5. High Cholesterol	1	2	3	4

**Interviewer: Check Q8b. Ask Q8c. for only those ailments which the participant selected option '3'**

Q8c. "For those ailments for which you have been treated with both branded and generic medication, when comparing generic medication to branded medication, in terms of their ability to work would you say the generic medication is....?" **SHOW CARD #3**

1. A lot more effective	
2. A little more effective	
3. Just about the same	
4. A little less effective	
5. A lot less effective	
6. Do not know/ Can't really tell	

	Q8c.					
1. Arthritis	1	2	3	4	5	6
2. Asthma	1	2	3	4	5	6
3. Diabetes (Sugar)	1	2	3	4	5	6
4. Hypertension (Pressure)	1	2	3	4	5	6
5. High Cholesterol	1	2	3	4	5	6

**Interviewer: Check Q8b. Ask Q8d. for only those ailments which the participant selected option '2'.**

Q8d. "Are generic medication available for the ailment(s) for which you have been treated with only branded medication?"

	Q8d.		
	Yes	No	Do not know
1. Arthritis	1	2	3
2. Asthma	1	2	3
3. Diabetes (Sugar)	1	2	3
4. Hypertension (Pressure)	1	2	3
5. High Cholesterol	1	2	3

Q9a. "When filling your prescription do you fill the prescribed amount all at once?"								
<table border="1"> <tr><td>1. <i>All the time</i></td></tr> <tr><td>2. <i>On most occasions</i></td></tr> <tr><td>3. <i>Sometimes</i></td></tr> <tr><td>4. <i>On a few occasions</i></td></tr> <tr><td>5. <i>Never all at once</i></td></tr> <tr><td> </td></tr> </table>		1. <i>All the time</i>	2. <i>On most occasions</i>	3. <i>Sometimes</i>	4. <i>On a few occasions</i>	5. <i>Never all at once</i>		
1. <i>All the time</i>								
2. <i>On most occasions</i>								
3. <i>Sometimes</i>								
4. <i>On a few occasions</i>								
5. <i>Never all at once</i>								
Q9b. "Do you take your medication as prescribed?"								
<table border="1"> <tr><td>1. <i>All the time</i></td></tr> <tr><td>2. <i>On most occasions</i></td></tr> <tr><td>3. <i>Sometimes</i></td></tr> <tr><td>4. <i>On a few occasions</i></td></tr> <tr><td>5. <i>Never</i></td></tr> <tr><td> </td></tr> </table>		1. <i>All the time</i>	2. <i>On most occasions</i>	3. <i>Sometimes</i>	4. <i>On a few occasions</i>	5. <i>Never</i>		
1. <i>All the time</i>								
2. <i>On most occasions</i>								
3. <i>Sometimes</i>								
4. <i>On a few occasions</i>								
5. <i>Never</i>								
❖ ABILITY TO PAY								
Q10. "Do you currently use a health insurance provider?"								
<table border="1"> <tr><td>1. Yes</td><td></td></tr> <tr><td>2. No <b>SKIP to Q12</b></td><td></td></tr> <tr><td> </td><td></td></tr> </table>		1. Yes		2. No <b>SKIP to Q12</b>				
1. Yes								
2. No <b>SKIP to Q12</b>								
Q11b. "Does this insurance policy provide you with a limited or unlimited amount for purchasing prescription medication?"								
<table border="1"> <tr><td>1. Limited</td><td></td></tr> <tr><td>2. Unlimited</td><td></td></tr> <tr><td> </td><td></td></tr> </table>		1. Limited		2. Unlimited				
1. Limited								
2. Unlimited								



## ❖ OTHER CONSUMER CHARACTERISTICS

Q12. "Generally speaking, how frequently do you visit your physician?"

1. Once per week or more often
2. Once every two weeks
3. Once every three to four weeks
4. Once every 2 to 3 months/ 4 to 6 times per year
5. Once every 4 or 5 months
6. Once every 6 months/ twice per year
7. Less than twice per year

Q13a. "When you visit this physician do you ask him/her for a specific type of medication, branded or generic?"

1. Yes	
2. No <b>SKIP TO Q15</b>	

Q13b. "And on average, say for every ten visits you make to your physician on how many occasions would you say you ask for a specific medication?" \_\_\_\_\_.  
*Interviewer: IF ZERO, ALSO INDICATE ZERO AT Q13c.*

Q13c. "And out of this total on how many occasions has the physician said no to your request?"  
 \_\_\_\_\_

Q13d. "Have you ever visited another physician because your usual physician said no to your request?"

1. Yes	
2. No	

Q14a. "Which type of medication do you ask for more often?"

1. branded	
2. generic	
3. I do not ask for either more often than the other	

Q14b. "What factors influence the type of medication you request?"

1. Advertisement
2. physical appearance of medication
3. Availability of the medication
4. Doctor/ Nurse Recommended
5. Family/ Friend Recommended
6. Pharmacist Recommended
7. Price of the medication
8. Side effects
9. Tradition (it's what I have always used)
10. Value for money
11. Other (specify): _____

Q15. "How frequently would you say you purchase a prescription medication?"

1. More often than once per week
2. Once per week
3. Once every two weeks
4. Once every three weeks
5. Once per month
6. Once every 2 months
7. Once every 3 months/ four times per year
8. Once every 4 or 5 months
9. Once every six months/ twice per year
10. Less frequently than twice per year

Q16a. “Would you request the branded medication at the pharmacy even though your Doctor prescribed a generic medication?”

1. Yes	<b>Skip to Q17a</b>
2. No	
3. Depends	<b>Skip to Q16c</b>

Q16b. “Why wouldn’t you request the branded medication?” **DO NOT READ**

1.	It would not be safe to do so.
2.	My Doctor knows best.
3.	Other (please specify): _____
<b>Interviewer: Ship to Q17a</b>	

Q16c. “What factors would the decision depend on?”

1.	The type of ailment I am being treated for
2.	Whether I can afford the branded medication
3.	My trust in the Doctor
4.	Other (please specify): _____

Q17a. “Would you request a generic medication at the pharmacy even though your Doctor prescribed a branded medication?”

1. Yes	<b>Skip to Q18</b>	
2. No		
3. Depends	<b>Skip to Q17c</b>	

Q17b. “Why wouldn’t you request the generic medication?” **DO NOT READ**

1.	It would not be safe to do so.
2.	My Doctor knows best.
3.	Other (please specify): _____
<b>Interviewer: Skip to Q18</b>	

Q17c. "What factors would the decision depend on?"

1.	The type of ailment I am being treated for
2.	Whether I can afford the generic medication
3.	My trust in the Doctor
4.	Other (please specify): _____

### IMPACT OF GOVERNMENT POLICY

Q18. "Are you aware of Government efforts encouraging the use of generic medication?"

1. Yes	
2. No	

Q19. "Do you know of the National Health Fund (NHF)?"

1. Yes	
2. No <b>GO TO Q22.</b>	

Q20a. "Have you ever signed up for a NHF card?"

1. Yes <b>GO TO Q21a.</b>	
2. No	

Q20b. "What is your main reason for not signing up for the card?"

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**Interviewer: GO TO Q22.**

Q21a. "Did you use the NHF card on the last prescription that you filled?"		
1. Yes <b>GO TO Q21c.</b>		
2. No		
Q21b. "What is the reason for not using the card?"		
<b>Interviewer: GO TO Q22.</b>		
Q21c. "How long have you been a member?"		
1. Less than 6 months		
2. 6 – 11 months		
3. 1 year or more but less than 3 years		
4. 3 years or more but less than 5 years		
5. 5 years or more		
Q22. "Do you know of the Jamaica Drugs for the Elderly Programme (JADEP)?"		
1. Yes		
2. No <b>GO TO Q25a.</b>		
<b>CHECK D1: ASK Q23a only if option '7' or '8' is selected. OTHERWISE SKIP TO Q25a.</b>		
Q23a. "Have you ever signed up for a JADEP card?"		
1. Yes <b>GO TO Q24a.</b>		
2. No		

Q23b. "What is your main reason for not signing up for the card?"												
<b>Interviewer: GO TO Q25a.</b>												
Q24a. "Did you use the JADEP card the last time you filled a prescription?"												
<table border="1"> <tr> <td>1. Yes <b>GO TO Q24c.</b></td> <td></td> </tr> <tr> <td>2. No</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>		1. Yes <b>GO TO Q24c.</b>		2. No								
1. Yes <b>GO TO Q24c.</b>												
2. No												
Q24b. "What is your main reason for not using the card?"												
<b>Interviewer: GO TO Q25a.</b>												
Q24c. "For how long have you been a member?"												
<table border="1"> <tr> <td>1. Less than 6 months</td> <td></td> </tr> <tr> <td>2. 6 – 11 months</td> <td></td> </tr> <tr> <td>3. 1 year or more but less than 3 years</td> <td></td> </tr> <tr> <td>4. 3 years or more</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>		1. Less than 6 months		2. 6 – 11 months		3. 1 year or more but less than 3 years		4. 3 years or more				
1. Less than 6 months												
2. 6 – 11 months												
3. 1 year or more but less than 3 years												
4. 3 years or more												
Q25a. "Have you ever heard of the Health Corporation Limited (HCL)?"												
<table border="1"> <tr> <td>1. Yes</td> <td></td> </tr> <tr> <td>2. No <b>Skip to Q26.</b></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>		1. Yes		2. No <b>Skip to Q26.</b>								
1. Yes												
2. No <b>Skip to Q26.</b>												
Q25b. "Who established the Health Corporation Limited?"												
_____												

Q26. "For how long have you been purchasing prescription medication in Jamaica?"

1. less than one year	
2. 1 year or more but less than 3 years	
3. 3 years or more but less than 5 years	
4. 5 years or more but less than 7 years	
5. 7 years or more but less than 9 years	
6. 9 years or more	

**Interviewer: Check Q8b. Ask Q27a. only if option '1' or '3' is selected.  
OTHERWISE skip to Q27b.**

Q27. "Which of the following statements BEST describes your trend in purchasing prescription medication? Over the period in which I have been purchasing generic prescription medication, I have noticed..." **READ OPTIONS AND SHOW CARD #4**

1. ... a significant increase in my tendency to purchase a generic version of a medication
2. ... a slight increase in my tendency to purchase generic version of a medication
3. ... no change in my tendency to purchase a generic version of a medication
4. ... a slight decline in my tendency to purchase a generic version of a medication
5. ... a significant decline in my tendency to purchase a generic version of a medication

Q28. "Considering the effectiveness of prescription medication over the period in which you have been purchasing prescription medication, what trends have you observed in relation to the price of prescription medication?" **Interviewer: Read options.**

1. Price of prescription medication has been more reasonable	
2. Price of prescription medication has been less reasonable	
3. I have not noticed any trend in the price of prescription medication	

Q29. "Please select one of the following: 'Over the period in which I have been purchasing prescription medication, I've noticed...:'"

1. a considerable improvement in the effectiveness of prescription medication I use.
2. a slight improvement in the effectiveness of prescription medication I use.
3. no difference in the effectiveness of prescription medication I use.
4. a slight decline in the effectiveness of prescription medication I use.
5. a significant decline in the effectiveness of prescription medication I use.

<b>INCIDENCE OF 'UNFAIR' PRACTICES IN THE PRESCRIPTION DRUG MARKET</b>											
<p>Q30a. "Do you think you were ever 'unfairly' treated by anyone while acquiring health care services?"</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 40%;">1. Yes</td> <td style="width: 60%;"></td> </tr> <tr> <td>2. No <b>SKIP TO Q31.</b></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>		1. Yes		2. No <b>SKIP TO Q31.</b>							
1. Yes											
2. No <b>SKIP TO Q31.</b>											
<p>Q30b. "For the most recent incident, who treated you unfairly?" <b>Interviewer: Circle All that apply</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 60%;">1. A Doctor</td> <td style="width: 40%;"></td> </tr> <tr> <td>2. A pharmacist/ pharmacy</td> <td></td> </tr> <tr> <td>3. A health insurer</td> <td></td> </tr> <tr> <td>4. Other (please specify): _____</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>		1. A Doctor		2. A pharmacist/ pharmacy		3. A health insurer		4. Other (please specify): _____			
1. A Doctor											
2. A pharmacist/ pharmacy											
3. A health insurer											
4. Other (please specify): _____											
<p>Q30c. "Briefly describe the most recent incident"</p> <div style="border: 1px solid black; height: 100px; margin-top: 10px;"></div>											
<p>Q30d. "Did you try to get the matter resolved?"</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 40%;">1. Yes</td> <td style="width: 60%;"></td> </tr> <tr> <td>2. No <b>SKIP TO Q31.</b></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>		1. Yes		2. No <b>SKIP TO Q31.</b>							
1. Yes											
2. No <b>SKIP TO Q31.</b>											



Q30e. "Where did you go to get the matter resolved?"										
Q30f. "Was the matter satisfactorily resolved?"										
<table border="1"> <tr> <td>1. Yes</td> <td></td> </tr> <tr> <td>2. No</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>		1. Yes		2. No						
1. Yes										
2. No										
Q31. "Name all the places you think you could get assistance with any problem encountered in the health care industry"										
<b>DEMOGRAPHICS</b>										
D3. "What is your occupation?" _____										
D4. "What is the occupation of the head of the household?" _____										
D5. "What is the highest level of education you achieved?"										
<table border="1"> <tr> <td>1. No formal education</td> <td>4. Vocational/ Technical</td> </tr> <tr> <td>2. Primary/ Preparatory</td> <td>5. College</td> </tr> <tr> <td>3. Secondary/ High</td> <td>6. University</td> </tr> <tr> <td></td> <td></td> </tr> </table>		1. No formal education	4. Vocational/ Technical	2. Primary/ Preparatory	5. College	3. Secondary/ High	6. University			
1. No formal education	4. Vocational/ Technical									
2. Primary/ Preparatory	5. College									
3. Secondary/ High	6. University									

D6. "What is the highest level of education achieved by the head of the household?"			
1. No formal education	4. Vocational/ Technical		
2. Primary/ Preparatory	5. College		
3. Secondary/ High	6. University		
D7. "What is the approximate combined monthly take-home salary for the household?"			
1. less than \$10, 000	5. \$40,001 - \$50,000	9. \$80,001 - \$100,000	
2. \$10,001 - \$20,000	6. \$50,001 - \$60,000	10. more than \$100,000	
3. \$20,001 - \$30,000	7. \$60,001 - \$70,000	11. Refused	
4. \$30,001 - \$40,000	8. \$70,001 - \$80,000	12. Do not Know/ Can't Recall	
D8. "Do you have access to the internet?"			
1. Yes			
2. No			
Parish of Residence: _____			
<b>"WE HAVE COME TO THE END OF THIS INTERVIEW. YOUR CO-OPERATION HAS BEEN APPRECIATED!"</b>			

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## APPENDIX F. PHYSICIAN QUESTIONNAIRE

### IDRC FUNDED RESEARCH INTO THE PHARMACEUTICAL INDUSTRY

#### Introduction

Through a competitive process, in November 2005, we were awarded a grant to conduct research into the Pharmaceutical sector. The grant was made by the International Development Research Centre (IDRC) in Ottawa, Canada; and the Jamaica Fair Trading Commission (FTC) was one of four competition agencies that were awarded.

The main objective of the study is to identify factors which hinder competition within the Pharmaceutical sector; and recommend to policy-makers, measures for enhancing competition in the distribution of prescription drugs sold in Jamaica. A more competitive prescription drug market will, among other things, conduce to greater access by Jamaicans to more effective treatment of ailments.

Toward this end, we will examine structural, behavioral and informational factors that might be influencing the competitiveness of the prescription drugs industry. Data to be used to carry out the study will be collected primarily through direct interviews with stakeholders.

The study will focus primarily on prescription drugs used to treat the following chronic ailments: Arthritis, Asthma, Diabetes, High Cholesterol and Hypertension.

The Consumer Affairs Commission (CAC) and the University of Technology (Utech) are collaborating with the FTC in this effort.

#### Confidentiality Notice to Participants

- You have the right to abstain from participation in this research;
- You have the right to terminate your participation at any time;
- You have the right to refuse to answer any question;
- Your replies shall be held in strict confidence;
- Your identity shall be kept strictly confidential;
- At the conclusion of this research project, any information that reveals your identity shall be destroyed. No information revealing your identity shall be included in the final report or in any other communication prepared in the course of this research project **unless you consent to its inclusion in writing.**

I \_\_\_\_\_ have been advised of the information contained in the Notice provided above and consent to participate in the research. Further, I **consent/ do not consent** to the inclusion of my identity in any report or communication arising out of this research.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Time: \_\_\_\_\_

[READ Confidentiality clause.]	For Official Use Only
S1. Does anyone in your household, or close relative, work for any of the following:	
Yes    No	
1. A marketing/ market research firm?	1        2
2. A public relations/ advertising firm?	1        2
If yes to any of the above, thank and terminate. Otherwise continue.	
S2. Have you participated in a research survey in the past 3 months?	
1. Yes Thank and terminate                          2. No Continue	
S3. Have you authorized prescription drugs in the past three months?	
1. Yes Continue    2. No Thank and terminate	
D1. "To which of the following age groups do you belong?" (Read Out)	
1. less than 25 years	
2. 25 - 29 years	
3. 30 - 34 years	
4. 35 - 44 years	
5. 45 - 54 years	
6. 55 – 64 years	
7. 65 – 74 years	
8. 75 years and over	

D2. <b>Indicate</b> Gender: 1. Male                      2. Female	
D3. Do you have access to the internet?      1. Yes              2. No	
F1a. “Are you a member of any Preferred Provider Organization (PPO)/ Physician List (similar to an HMO)?” 1. Yes                      2. No <b>GO TO QF2.</b>	
F1b. Which one(s)? _____	
F2. “For how long have you been practicing?” <b>(Read Out)</b> 1. Less than a year 2. 1 year or more but less than 2 years 3. 2 years or more but less than 5 years 4. 5 years or more but less than 10 years 5. 10 years or more	
F3a. “What is the average number of patients you see on a typical weekday (Monday to Friday)? “ _____	
F3b. And approximately how many prescription drugs do you write on a weekday? _____	
F4a. What is the average number of patients you see on a typical weekend (Saturday and Sunday)? _____	
F4b. And approximately how many prescriptions do you write on a typical day on a weekend? _____	
F5. Approximately how many patients with long-term illnesses do you care for? _____	

<b><u>MAIN QUESTIONNAIRE</u></b>	
<b><u>Drug Awareness</u></b>	
Q1. How do you currently receive information on new drugs?	
1. Television/ Radio/ Newspaper ads	
2. Flyers/ Brochures	
3. Seminars sponsored by Manufacturers	
4. Journals	
5. Internet	
6. Other (please specify):_____	
Q2a. "Considering everything, would you say generic drugs are therapeutically equivalent to innovator drugs?"	
1. Yes <b>Skip to Q3</b>	
2. No <b>Skip to Q3</b>	
3. Depends on certain factors	
Q2b. What are these factors?	
_____	
_____	
_____	
_____	
_____	
_____	
_____	
_____	

<p>Q3. Compared to the price of an innovator drug, how would you rate the difference in price for a generic drug...? <b>(Read Out)</b></p> <ol style="list-style-type: none"> <li>1. A lot less expensive</li> <li>2. A little less expensive</li> <li>3. About the same</li> <li>4. A little more expensive</li> <li>5. A lot more expensive</li> </ol>																									
<p>Q4. In general, are you aware of generic drugs being available for the following ailments? <b>(Read out one at a time. Accept one answer for each ailment)</b></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th style="width: 50%;"></th> <th colspan="2" style="text-align: center;">Q5.</th> </tr> <tr> <th></th> <th style="text-align: center;">Yes</th> <th style="text-align: center;">No</th> </tr> <tr> <td>1. Arthritis</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>2. Asthma</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>3. High Cholesterol</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>4. Diabetes (Sugar)</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>5. Hypertension (Pressure)</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>6. Other (specify):</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </table>		Q5.			Yes	No	1. Arthritis	1	2	2. Asthma	1	2	3. High Cholesterol	1	2	4. Diabetes (Sugar)	1	2	5. Hypertension (Pressure)	1	2	6. Other (specify):	1	2	
	Q5.																								
	Yes	No																							
1. Arthritis	1	2																							
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3. High Cholesterol	1	2																							
4. Diabetes (Sugar)	1	2																							
5. Hypertension (Pressure)	1	2																							
6. Other (specify):	1	2																							
<p>Q6a. Do you think there is a need to increase the awareness of generic prescription drugs in Jamaica?</p> <ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No Skip to Q7</li> </ol>																									
<p>Q6b. What could be done to better increase the awareness of generic prescriptions drugs?</p> <hr style="border: 0; border-top: 1px solid black; margin: 10px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 10px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 10px 0;"/>																									



Q7a. What would be your preferred source for more information on prescription drugs?				
1. Television/ Radio Newspaper ads				
2. Flyers/ Brochures/ Magazines				
3. Medical Journals				
4. Medical Books/ Text				
5. Seminars held by Manufacturers				
6. Other (please specify): _____				
7. Other (please specify): _____				
Q8a. Please rank the following sources of medical information for <b><u>physicians</u></b> in order of credibility. Where 1 is most believable, 2 is second most believable, and so on. <b>(Showcard 1)</b>				
Q8b. In your opinion, please rank the following sources of medical information for <b><u>patients</u></b> in order of credibility. Where 1 is most believable, 2 is second most believable, and so on. <b>(Showcard 1)</b>				
	Q8a. Ranked Order	Q8b. Ranked Order		
1. Other Physicians				
2. Pharmacist				
3. Ministry of Health				
4. Family/ Friends				
5. Drug Representatives				
6. Internet				
7. Journals				
8. Manufacturers				
9. Other (please specify):				
10. Other (please specify):				

<b><u>Drug Distribution</u></b>																											
<p>Q9a. Out of every ten prescriptions you write, what is the ratio of innovator to generic prescriptions?</p> <p>_____ generic and _____ innovator [must = 10]</p>																											
<p>Q9b. What is the main reason for prescribing _____ more often? <b>(Say the type at Q9a with the higher number.) If both equally, ask:</b> What is the main reason for prescribing both equally?</p> <p>_____</p> <p>_____</p>																											
<p>Q10. "List the top three (3) influences on the type of drug, generic or innovator, you prescribe where '1' represents the greatest influence." <b>PROBE. SHOWCARD 2.</b></p> <table border="1"> <thead> <tr> <th></th> <th>Rank</th> </tr> </thead> <tbody> <tr> <td>1. Advertisement</td> <td></td> </tr> <tr> <td>2. Doctor/ Nurse Recommended</td> <td></td> </tr> <tr> <td>3. Incentives provided by the manufacturer</td> <td></td> </tr> <tr> <td>4. Health insurance coverage of patient</td> <td></td> </tr> <tr> <td>5. Newness/ Innovativeness of the drug</td> <td></td> </tr> <tr> <td>6. Patient's request</td> <td></td> </tr> <tr> <td>7. Pharmacist Recommended</td> <td></td> </tr> <tr> <td>8. Price of the drug</td> <td></td> </tr> <tr> <td>9. Reputation of the drug</td> <td></td> </tr> <tr> <td>10. Traditional/ (it's what I have always prescribed)</td> <td></td> </tr> <tr> <td>11. Other (specify):</td> <td></td> </tr> <tr> <td>_____</td> <td></td> </tr> </tbody> </table>		Rank	1. Advertisement		2. Doctor/ Nurse Recommended		3. Incentives provided by the manufacturer		4. Health insurance coverage of patient		5. Newness/ Innovativeness of the drug		6. Patient's request		7. Pharmacist Recommended		8. Price of the drug		9. Reputation of the drug		10. Traditional/ (it's what I have always prescribed)		11. Other (specify):		_____		
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10. Traditional/ (it's what I have always prescribed)																											
11. Other (specify):																											
_____																											

Q11. What class of drugs used to treat [*read each ailment*] would you not be willing to have substituted by an available generic? **Circle all that apply for each ailment.**

Ailment	Q11. Classes of drugs ( <b>Read out if necessary</b> )
1. Arthritis	1. Non- steroidal anti- inflammatory drugs 2. Disease- modifying anti- rheumatic drugs 3. Corticosteroids 4. other: _____ 9. None of the above
2. Asthma	1. Steroids : short term controllers 2. Steroids : long term controllers 3. other: _____ 9. None of the above
3. High cholesterol	1. HMG CoA reductase inhibitors (statins) 2. Bile acid sequestrants 3. Nicotinic acid 4. Fibric acid 5. other: _____ 9. None of the above
4. Diabetes (Sugar)	1. Sulfonylureas 2. Thiazolidinediones 3. Biguanides 4. Alpha- glucosidase inhibitors 5. Insulin 6. other: _____ 9. None of the above
5. Hypertension (Pressure)	1. Beta blockers 2. Calcium Channel Blockers 3. ACE Inhibitors 4. Vasodilators 5. Diuretics 6. other: _____ 9. None of the above

<p>Q12. Do you believe consumers are currently getting good quality drugs at reasonable prices?</p> <p>1. Yes                      2. No</p>	
<p>Q13b. Why/ Why not?</p> <p>_____</p>	
<p>Q14. “Are you restricted by any formularies?” <b>By definition, a formulary is a list of the most commonly prescribed medications that have been selected by doctors, pharmacists, and other healthcare professionals on the basis of their effectiveness and cost.</b></p> <p>1. Yes    <b>CONTINUE</b>                      2. No    <b>GO TO Q17</b></p>	
<p>Q15. “How frequently is this list updated?”</p> <p>1. more frequently than once every 2 weeks</p> <p>2. once every 2-3 weeks</p> <p>3. once per month</p> <p>4. every 2-4 months</p> <p>5. every 5-6 months</p> <p>6. every 7-11 months</p> <p>7. once per year or less often</p> <p>8. I have no idea how frequently the list is updated</p>	

Q16. "Have you ever felt it necessary to prescribe a drug which was not on the list but it would be more appropriate?" Would you say... **(Read Out)**

1. Always
2. Often
3. Sometimes
4. Seldom
5. Never

Q17. We are interested in learning about your evaluation of the use of generic prescription products. Please select the option that BEST represents your position to each of the statements I am about to read to you. **(Showcard 3)**

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree		
a. In order to keep patients, I have to support generic substitution.	5	4	3	2	1		
b. The price difference between generic and innovator products is often so great I feel I must offer patients products with generic substitutes:	5	4	3	2	1		
c. All generics that are rated as bioequivalent can be considered therapeutically equivalent with the innovator products:	5	4	3	2	1		
d. There is no real difference between most innovator products and their generic equivalents:	5	4	3	2	1		
e. I willingly support generic substitution for innovator prescription products:	5	4	3	2	1		

f. I generally prescribe the innovator and leave it to the pharmacist to discuss the generic alternatives:	5	4	3	2	1		
g. In order to keep patients, I have to provide innovator drugs.	5	4	3	2	1		
h. I regularly discuss the difference between generic and innovator drugs with my patients	5	4	3	2	1		
Q18a. Do you have any association with any of the following? ( <b>Read out. Circle all mentioned</b> )							
Q18b. <b>Ask for each mentioned:</b> Could you briefly describe the nature of the relation with (read first one coded at Q18a)?							
Q18a.	Q18b.						
1. Manufacturers	1. Owner (part/full) 2. Spouse/ Relative 3. Other (specify): _____						
2. Wholesalers	1. Owner (part/full) 2. Spouse/ Relative 3. Other (specify): _____						
3. Importers	1. Owner (part/full) 2. Spouse/ Relative 3. Other (specify): _____						
4. Other (specify):	1. Owner (part/full) 2. Spouse/ Relative 3. Other (specify): _____						

<b><u>PATIENT PROFILE</u></b>	
<p>Q19. “Before writing a prescription do you ask the patient if they are covered by Health Insurance?” <b>(Read Out)</b></p> <ol style="list-style-type: none"> <li>1. Always</li> <li>2. Often</li> <li>3. Sometimes</li> <li>4. Seldom</li> <li>5. Never</li> </ol>	
<p>Q20. In your practice, what would say is the percentage breakdown for each of the following: <b>(Read Out)</b></p> <ol style="list-style-type: none"> <li>1. No health insurance coverage at all _____ %</li> <li>2. Insurance coverage by the National Health Fund _____ %</li> <li>3 Insurance coverage by the private sector _____ %</li> </ol>	
Note % above should add to 100%	
<p>Q21a. When your patients visit you do they ask you for a specific type drug, innovator or generic?</p> <ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No SKIP TO Q22a.</li> </ol>	
Q21b. Which do they ask for most often?    1. innovator                      2. generic	
Q22a. Out of every ten patients you see, on average, how many would you say you ask for a specific drug? _____	

Q22b. And out of this total on how often would you say you facilitate this request? _____ (interviewer number should be less than or equal to the # at Q22a)	
<b><u>GOVERNMENT INTERVENTION</u></b>	
Q23. Are you aware of government regulations encouraging generic substitution of pharmaceuticals?  1. Yes                                      2. No	
Q24. Are you aware of the government establishing the Health Corporation Limited (HCL)?  1. Yes                                      2. No	
Q25. Would you say that over the period in which you have been practicing medicine in Jamaica, a greater number of consumers have been able to buy prescription drugs at more reasonable prices?  1. Yes                                      2. No	
Q26. Please select one of the following: “Over the period I have been practicing medicine in Jamaica, I have seen ( <b>read out statements below</b> ) in the effectiveness of prescription drugs being distributed in Jamaica.  1. a considerable improvement 2. a slight improvement 3. no difference 4. a slight decline 5. a significant decline	



Q27a. If the Government or Ministry of Health were to conduct seminars geared at increasing the awareness of generic drugs, how interested would you be in attending? <b>(Read Out)</b>		
1. Very interested	GO TO Q28a.	
2. Somewhat interested		
3. Neither interested nor uninterested	ASK Q27b.	
4. Somewhat uninterested		
5. Very uninterested		
Q27b. Why not? _____		
Q28a. If the Government or Ministry of Health were to conduct seminars geared at increasing the awareness of innovator drugs, how interested would you be in attending? <b>(Read Out)</b>		
1. Very interested	GO TO Q29	
2. Somewhat interested		
3. Neither interested nor uninterested	ASK Q28b	
4. Somewhat uninterested		
5. Very uninterested		
Q28b. Why not? _____		
Q29. What category speakers should they invite? _____		
<p align="center"><b><i>WE HAVE COME TO THE END OF THIS INTERVIEW. YOUR CO-OPERATION HAS BEEN APPRECIATED!</i></b></p>		

## APPENDIX G. RETAILER QUESTIONNAIRE

### IDRC FUNDED RESEARCH INTO THE PHARMACEUTICAL INDUSTRY

#### Introduction

Through a competitive process, in November 2005, we were awarded a grant to conduct research into the Pharmaceutical sector. The grant was made by the International Development Research Centre (IDRC) in Ottawa, Canada; and the Jamaica Fair Trading Commission (FTC) was one of four competition agencies that were awarded. The main objective of the study is to identify factors which hinder competition within the Pharmaceutical sector; and recommend to policy-makers, measures for enhancing competition in the distribution of prescription drugs sold in Jamaica. A more competitive prescription drug market will, among other things, conduce to greater access by Jamaicans to more effective treatment of ailments.

Toward this end, we will examine structural, behavioral and informational factors that might be influencing the competitiveness of the prescription drugs industry. Data to be used to carry out the study will be collected primarily through direct interviews with stakeholders. The study will focus primarily on prescription drugs used to treat the following chronic ailments: Arthritis, Asthma, Diabetes, High Cholesterol and Hypertension. The Consumer Affairs Commission (CAC) and the University of Technology (UTECH) are collaborating with the FTC in this effort.

#### Confidentiality Notice to Participants

- You have the right to abstain from participation in this research;
- You have the right to terminate your participation at any time;
- You have the right to refuse to answer any question;
- Your replies shall be held in strict confidence;
- Your identity shall be kept strictly confidential;
- At the conclusion of this research project, any information that reveals your identity shall be destroyed. No information revealing your identity shall be included in the final report or in any other communication prepared in the course of this research project **unless you consent to its inclusion in writing.**

I \_\_\_\_\_ have been advised of the information contained in the Notice provided above and consent to participate in the research. Further, I **consent/ do not consent** to the inclusion of my identity in any report or communication arising out of this research.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

<b>RETAILERS! YOUR OPINION IS IMPORTANT...</b>										
<b>[Interviewer:</b> (i) <b>CIRCLE RESPONSE OF PARTICIPANTS.</b> (ii) <b>IT IS PREFERABLE for questions marked with three asterisks (***) to be answered by the OWNER of the pharmacy.</b>										
Respondent's Name: _____ Contact Number (s): _____										
Name of the Pharmacy: _____										
Full Business Address: _____										
Interviewer: _____ Date: _____ Time: _____										
S1. "Have you dispensed prescription drugs in the past three months?"										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">1. Yes</td> <td style="width: 50%; text-align: center;">2. No <b>Thank and terminate</b></td> </tr> <tr> <td style="height: 20px;"></td> <td></td> </tr> </table>		1. Yes	2. No <b>Thank and terminate</b>							
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D1. "To which of the following age groups do you belong?"										
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D2. "How long have you been practicing as a pharmacist?"										
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D3. <b>Indicate</b> Gender: 1. Male                      2. Female		
F1. "Are you the owner of the pharmacy?"		
1. Yes	2. No	
F2a. Indicate type of pharmacy:		
1. A Government/ public agency, <b>if so please specify:</b>	1.1 Drug Serv 1.2 Hospital 1.3 Clinic	
2. A non-Government agency/ private outlet		
***F2b. "How many years has this pharmacy been in business?"		
1. Less than a year		
2. 1 year or more but less than 2 years		
3. 2 years or more but less than 5 years		
4. 5 years or more but less than 10 years		
5. 10 years or more		
***F3a. "Does this pharmacy have any affiliation/business relationship with any of the following?"		
	F3a.	
1. Manufacturers	1. Yes      2. No	
2. Wholesalers	1. Yes      2. No	
3. HMO	1. Yes      2. No	
4. Physicians	1. Yes      2. No	
5. Other (specify):	1. Yes      2. No	

<b>***F3b. “If so, please describe the affiliation or business relationship”</b>																																								
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<b>F4a. “Are you a member of any Preferred Provider List (for instance the life of Jamaica Preferred Provider Organisation (PPO) scheme)?”</b>																																								
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<b>F5a. “Are you a member of any registered association?”</b>																																								
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<b>F5b. “Which association?” Interviewer: Mark response in grid below.</b>																																								
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<b>F5d. “Does this association disseminate information on specific pharmacies?” Interviewer: Mark response in grid below. If “no” do not ask F5e.</b>																																								
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F5b. Name of the Trade Association	F5c. Number of Meetings held in a year	F5d. Information shared	F5e. Retailers share info on price or quantity	
		1. Yes    2. No	1. Yes    2. No	
		1. Yes    2. No	1. Yes    2. No	
		1. Yes    2. No	1. Yes    2. No	
F5f. "What other type of information is available from the association?"				
_____				
_____				
F6a. "Do you work during the week (Monday to Friday)?"				
1. Yes		2. No <b>SKIP TO F7a.</b>		
F6b. "Approximately how many hours do you work per week (Monday to Friday) at this pharmacy?" _____				
F6c. "Approximately how many prescriptions do you dispense on a typical weekday (Monday to Friday) at this pharmacy?" _____				
F7a. "Do you work on weekends (Saturday and/or Sunday)?"				
1. Yes		2. No <b>SKIP TO F8.</b>		
F7b. "Approximately how many hours do you work per weekend (Saturday and/or Sunday) at this pharmacy?" _____				
F7c. "Approximately how many prescriptions do you dispense on a typical weekend (Saturday and/or Sunday)?" _____				
***F8. "How many pharmacies would you consider to be your <u>main</u> rivals?" _____				

<b><u>DISTRIBUTION OF INFORMATION</u></b>															
Q2. "In your opinion are there any differences between generic and innovator drugs? Explain"															
Q3a. "When comparing generic drugs to innovator drugs, in terms of the therapeutic effect would you say the generic drug is _____ than the innovator?"															
<table border="1"> <tr> <td>1. A lot more effective</td> <td><b>GO TO Q3b</b></td> </tr> <tr> <td>2. A little more effective</td> <td><b>GO TO Q3b</b></td> </tr> <tr> <td>3. Just about the same</td> <td><b>GO TO Q3b</b></td> </tr> <tr> <td>4. A little less effective</td> <td><b>GO TO Q3b</b></td> </tr> <tr> <td>5. A lot less effective</td> <td><b>GO TO Q3b</b></td> </tr> <tr> <td>6. It depends</td> <td><b>GO TO Q3c</b></td> </tr> <tr> <td></td> <td></td> </tr> </table>	1. A lot more effective	<b>GO TO Q3b</b>	2. A little more effective	<b>GO TO Q3b</b>	3. Just about the same	<b>GO TO Q3b</b>	4. A little less effective	<b>GO TO Q3b</b>	5. A lot less effective	<b>GO TO Q3b</b>	6. It depends	<b>GO TO Q3c</b>			
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6. It depends	<b>GO TO Q3c</b>														
Q3b. "Why do you say so?"															
<b>SKIP TO Q4a</b>															
Q3c. "On what does it depend?"															

Q4a. "Do you think there is a need for greater awareness of generic drugs....?"			
	Yes	No	
(i) ... within the Government	1	2	
(ii) ... among consumers	1	2	
(iii) ... among physicians	1	2	
(iv) ... among pharmacists	1	2	
<b>IF YES TO ANY ONE OF THE ABOVE CONTINUE, OTHERWISE SKIP TO Q5.</b>			
Q4b. "What could be done to increase the awareness of generic drugs?"			
Q5. "Rank the following sources of information in order of your exposure to information on prescription medication using 1 to indicate the source that provides you with the greatest amount of information."			
	Q5		
Television/ radio/ newspaper ads			
Medical Journals			
Flyers/ Brochures			
Seminars sponsored by drug manufacturers/ drug reps			
Internet			
Pharmaceutical Society of Jamaica			
Other (please specify):			



Q6. Please rank the following sources of medical information for <u>pharmacists</u> in order of credibility. Where 1 is most believable, 2 is second most believable, and so on.			
	Q6 Ranked Order		
1. Physicians			
2. Other Pharmacists			
3. Ministry of Health			
4. Drug Distributor Representatives			
5. Internet			
6. Medical Journals			
7. Manufacturers			
8. Pharmaceutical Society of Jamaica			
9. Other (please specify):			
<b><u>DEMAND FACTORS</u></b>			
Q7a. "Indicate whether your pharmacy accepts the insurance from the following sources?"			
	<b>Yes</b>	<b>No</b>	
1. National Health Fund (NHF)	1	2	
2. Jamaica Drugs for the Elderly (JADEP)	1	2	
3. Insurance issued by the private sector	1	2	
4. Other (please specify): _____	1		
Q7b. "Approximately what percentage of consumers who fill prescriptions at your pharmacy falls in the following categories?"			
1. Consumers not covered by any health insurance		_____ %	
2. Consumers covered by the NHF and/or JADEP		_____ %	
3. Consumers covered by a private sector company.		_____ %	
4. Other (as specified in <b>Q7a</b> above)		_____ %	

Q8a. "Do you believe consumers are currently getting good quality drugs at reasonable prices?"		
1. Yes	2. No	
Q8b. Why/ Why not?		
Q9. "Does your pharmacy supply generic drugs?"		
1. Yes we do supply them		
2. No we do not supply them GO TO Q15a.		
Q10a. "Do you verbally inform customers of the availability of generic drugs?"		
1. Always	<b>SKIP TO Q10c.</b>	
2. Often	<b>SKIP TO Q10c.</b>	
3. Sometimes	<b>SKIP TO Q10c.</b>	
4. Seldom		
5. Never		
Q10b. "What are your reasons for not doing so more frequently?"		
<b>SKIP TO Q11a</b>		
Q10c. "What are your reasons for doing so?"		

Q11a. "When patients visit the pharmacy, do they ask for a specific type (innovator or generic) of drug?"		
1. Always	<b>GO TO Q11b.</b>	
2. Often	<b>GO TO Q11b.</b>	
3. Sometimes	<b>GO TO Q11b.</b>	
4. Seldom	<b>SKIP TO Q12a.</b>	
5. Never	<b>SKIP TO Q12a.</b>	
Q11b. "On average, say for every ten visits you receive on how many occasions would you say customers ask for a specific drug?" _____		
Q11c. "And out of this total how often would you say you facilitate this request?" _____		
Q11d. "Which do they ask for most often?"		
1. innovator	2. generic	3. neither
Q12a. "For the prescriptions you dispense, out of 10 what is the ratio of innovator to generic?" _____ generic and _____ innovator [must = 10]		
<b>Interviewer: Skip to Q13a if ratio above is 5:5</b>		
Q12b. "What are the reasons why _____ is dispensed more often?"		
Q13a. "Have you ever dispensed an innovator drug at the pharmacy though the physician prescribed a generic drug?"		
1. Yes	2. No	

Q13b. Why? / Why not?		
_____		
_____		
Q14a. "Have you ever dispensed a generic drug at the pharmacy though the physician prescribes an innovator drug?"		
1. Yes	2. No	
Q14b. Why? / Why not?		
_____		
_____		
Q15a. "If you have both types (generic and innovator) of drugs in stock, which of the following factors influence your decision to dispense a generic drug over the innovator?"		
<b>CIRCLE ALL THAT APPLY</b>		
1. Tradition/ (it's what I have always dispensed)		
2. Type of ailment		
3. Effectiveness		
4. Physicians/ Nurse/ Pharmacist Recommended		
5. The price of a generic relative to the innovator- the <b>lower</b> the relative price of the generic, the more likely I am to dispense the generic drug		
6. The price of a generic relative to the innovator- the <b>higher</b> the relative price of the generic, the more likely I am to dispense the generic drug		
7. Incentives provided by the manufacturer/ Drug Rep		
8. Health insurance coverage of the customer		
9. Customer's request		
10. Other (specify): _____		

<p><b>Q15b. “Which of the factors identified above would you consider to be in the <b>TOP THREE</b> strongest influences your decision to dispense a generic drug over the innovator?”</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">1. Traditional/ (it’s what I have always stocked)</td></tr> <tr><td style="padding: 2px;">2. Type of ailment</td></tr> <tr><td style="padding: 2px;">3. Effective</td></tr> <tr><td style="padding: 2px;">4. Physicians/ Nurse/ Pharmacist Recommended</td></tr> <tr><td style="padding: 2px;">5. Price of the drug- the <b>lower</b> I can resell the drug for the better</td></tr> <tr><td style="padding: 2px;">6. Price of the drug- the <b>higher</b> I can resell the drug for the better</td></tr> <tr><td style="padding: 2px;">7. Incentives provided by the manufacturer</td></tr> <tr><td style="padding: 2px;">8. Health insurance coverage of the customer</td></tr> <tr><td style="padding: 2px;">9. Customer’s request</td></tr> <tr><td style="padding: 2px;">10. Other (specify): _____</td></tr> </table>	1. Traditional/ (it’s what I have always stocked)	2. Type of ailment	3. Effective	4. Physicians/ Nurse/ Pharmacist Recommended	5. Price of the drug- the <b>lower</b> I can resell the drug for the better	6. Price of the drug- the <b>higher</b> I can resell the drug for the better	7. Incentives provided by the manufacturer	8. Health insurance coverage of the customer	9. Customer’s request	10. Other (specify): _____			
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<p><b>Q16a. “For each ailment listed below, please indicate those sub-classes of drugs for which the innovator and generic are currently being distributed in Jamaica. <b>Circle all that apply.</b></b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;"></th> <th style="text-align: center;">Q16.</th> </tr> <tr> <th style="text-align: center;">Ailment</th> <th style="text-align: center;">Classes of drugs</th> </tr> <tr> <td style="padding: 5px;">Arthritis</td> <td style="padding: 5px;">           1. Non- steroidal anti- inflammatory drugs            2. Disease- modifying anti- rheumatic drugs            3. Corticosteroids            4. other: _____            9. None of the above         </td> </tr> <tr> <td style="padding: 5px;">Asthma</td> <td style="padding: 5px;">           1. Steroids : short term controllers            2. Steroids : long term controllers            3. other: _____            9. None of the above         </td> </tr> <tr> <td style="padding: 5px;">High cholesterol</td> <td style="padding: 5px;">           1. HMG CoA reductase inhibitors (statins)            2. Bile acid sequestrants            3. Nicotinic acid            4. Fibric acid            5. other: _____            9. None of the above         </td> </tr> <tr> <td style="padding: 5px;">Diabetes (Sugar)</td> <td style="padding: 5px;">           1. Sulfonylureas            2. Thiazolidinediones            3. Biguanides            4. Alpha- glucosidase inhibitors            5. Insulin            6. other: _____            9. None of the above         </td> </tr> </table>		Q16.	Ailment	Classes of drugs	Arthritis	1. Non- steroidal anti- inflammatory drugs 2. Disease- modifying anti- rheumatic drugs 3. Corticosteroids 4. other: _____ 9. None of the above	Asthma	1. Steroids : short term controllers 2. Steroids : long term controllers 3. other: _____ 9. None of the above	High cholesterol	1. HMG CoA reductase inhibitors (statins) 2. Bile acid sequestrants 3. Nicotinic acid 4. Fibric acid 5. other: _____ 9. None of the above	Diabetes (Sugar)	1. Sulfonylureas 2. Thiazolidinediones 3. Biguanides 4. Alpha- glucosidase inhibitors 5. Insulin 6. other: _____ 9. None of the above	
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Hypertension (Pressure)	1. Beta blockers 2. Calcium Channel Blockers 3. ACE Inhibitors 4. Vasodilators 5. Diuretics 6. other: _____ 9. None of the above																
Q16b. "For each sub-class of drug you identified above, indicate if you would be <u>reluctant</u> to dispense a generic drug over the innovator drug?" <b>Circle all that apply.</b>																	
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<b>By definition, a formulary is a list of the most commonly prescribed medications that have been selected by physicians, pharmacists, and other healthcare professionals on the basis of their effectiveness and cost.</b>																	

Q17a. "Are you restricted by any formularies?"		
1. Yes	2. No <b>GO TO Q18a.</b>	
Q17b. "If yes, have you ever wanted to dispense a drug of a better quality but felt restricted by the formulary?"		
1. Always		
2. Often		
3. Sometimes		
4. Seldom		
5. Never		
***Q18a. "Have you ever pre-announced any change in your business policy/strategy?"		
1. Yes	2. No <b>GO TO Q19.</b>	
***Q18b. "What aspect of your business strategy do you pre-announce any change in?" <b>Select all that apply.</b>		
1. Price changes		
2. Changes in availability of a drug		
3. Other (please specify): _____		

**Interviewer: Check Q18b. Ask Q18c only if '1' is selected.**

**\*\*\*Q18c.** "To whom do you normally communicate information on future price changes?"  
**Select all that apply.**

1. Employees
2. Customers
3. General Public
4. Affiliate Retailers
5. Competing Retailers
6. Wholesalers
7. Health Insurer
78 Other (please specify): _____

**Interviewer: Check Q18b. Ask Q18d only if '2' is selected.**

**\*\*\*Q18d.** "To whom do you normally communicate information on changes in the availability of a prescription drug?" **Select all that apply.**

1. Employees
2. Customers
3. General Public
4. Affiliate Retailers
5. Competing Retailers
6. Wholesalers
7. Health Insurer
8. Other (please specify): _____

**Interviewer: Check Q18b. Ask Q18e only if '3' is selected. Insert option '3' specified in Q18b in blank space below.**

**\*\*\*Q18e.** "To whom do you normally communicate information on changes in \_\_\_\_\_?" **Select all that apply.**

1. Employees
2. Customers
3. General Public
4. Affiliate Retailers
5. Competing Retailers
6. Wholesalers
7. Other (please specify): _____



<b><u>DISTRIBUTION OF PRESCRIPTION DRUGS</u></b>																						
***Q19. "From which of the following wholesalers do you purchase prescription drugs?"																						
<table border="1"> <tbody> <tr><td>1. Amalgamated Distributors Ltd.</td></tr> <tr><td>2. Cari-Med Ltd.</td></tr> <tr><td>3. Facey Commodity Co. Ltd.</td></tr> <tr><td>4. Glaxo Smithkline (Beecham) Caribbean Ltd.</td></tr> <tr><td>5. HD Hopwood</td></tr> <tr><td>6. Health Corporation Limited of Jamaica</td></tr> <tr><td>7. Inter-Commercial Limited</td></tr> <tr><td>8. Lasco Distributors Ltd.</td></tr> <tr><td>9. Medi-Grace Ltd.</td></tr> <tr><td>10. Medimpex Jamaica Ltd.</td></tr> <tr><td>11. MJD Pharmaceutical Co. Ltd.</td></tr> <tr><td>12. T.Geddes Grant</td></tr> <tr><td>13. Other (please specify): _____</td></tr> <tr><td>14. Other (please specify): _____</td></tr> <tr><td> </td></tr> </tbody> </table>	1. Amalgamated Distributors Ltd.	2. Cari-Med Ltd.	3. Facey Commodity Co. Ltd.	4. Glaxo Smithkline (Beecham) Caribbean Ltd.	5. HD Hopwood	6. Health Corporation Limited of Jamaica	7. Inter-Commercial Limited	8. Lasco Distributors Ltd.	9. Medi-Grace Ltd.	10. Medimpex Jamaica Ltd.	11. MJD Pharmaceutical Co. Ltd.	12. T.Geddes Grant	13. Other (please specify): _____	14. Other (please specify): _____								
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11. MJD Pharmaceutical Co. Ltd.																						
12. T.Geddes Grant																						
13. Other (please specify): _____																						
14. Other (please specify): _____																						
***Q20a. "Do you receive all your prescription drugs for the following chronic ailments from a single wholesaler?"																						
<table border="1"> <thead> <tr> <th>Ailment</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr><td>1. Arthritis</td><td>1</td><td>2</td></tr> <tr><td>2. Asthma</td><td>1</td><td>2</td></tr> <tr><td>3. High Cholesterol</td><td>1</td><td>2</td></tr> <tr><td>4. Diabetes (Sugar)</td><td>1</td><td>2</td></tr> <tr><td>5. Hypertension (Pressure)</td><td>1</td><td>2</td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Ailment	Yes	No	1. Arthritis	1	2	2. Asthma	1	2	3. High Cholesterol	1	2	4. Diabetes (Sugar)	1	2	5. Hypertension (Pressure)	1	2				
Ailment	Yes	No																				
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4. Diabetes (Sugar)	1	2																				
5. Hypertension (Pressure)	1	2																				
***Q20b. "What is the main reason for this?"																						
<table border="1"> <thead> <tr> <th>Ailment</th> <th>Main reason</th> </tr> </thead> <tbody> <tr><td>1. Arthritis</td><td></td></tr> <tr><td>2. Asthma</td><td></td></tr> <tr><td>3. High Cholesterol</td><td></td></tr> <tr><td>4. Diabetes (Sugar)</td><td></td></tr> <tr><td>5. Hypertension (Pressure)</td><td></td></tr> </tbody> </table>	Ailment	Main reason	1. Arthritis		2. Asthma		3. High Cholesterol		4. Diabetes (Sugar)		5. Hypertension (Pressure)											
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3. High Cholesterol																						
4. Diabetes (Sugar)																						
5. Hypertension (Pressure)																						





***	<b>Q24b. “Who engaged in the activity? Please select from the list below.”</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center;">Level</th> </tr> <tr> <td>1. Wholesaler</td> </tr> <tr> <td>2. another Retailer</td> </tr> <tr> <td>3. HMO</td> </tr> <tr> <td>4. Physician</td> </tr> <tr> <td>5. Other (please specify): _____</td> </tr> <tr> <td> </td> </tr> </table>	Level	1. Wholesaler	2. another Retailer	3. HMO	4. Physician	5. Other (please specify): _____											
Level																		
1. Wholesaler																		
2. another Retailer																		
3. HMO																		
4. Physician																		
5. Other (please specify): _____																		
Q24c. “Briefly describe the activity(ies)”	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center;">Level</th> <th style="text-align: center;">Action</th> </tr> <tr> <td>1. Wholesaler</td> <td> </td> </tr> <tr> <td>2. another Retailer</td> <td> </td> </tr> <tr> <td>3. HMO</td> <td> </td> </tr> <tr> <td>4. Physician</td> <td> </td> </tr> <tr> <td>5. Physician</td> <td> </td> </tr> <tr> <td>6. Other (please specify): _____</td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	Level	Action	1. Wholesaler		2. another Retailer		3. HMO		4. Physician		5. Physician		6. Other (please specify): _____				
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3. HMO																		
4. Physician																		
5. Physician																		
6. Other (please specify): _____																		
Q24d. “Did you make any attempt to resolve the matter?”	<div style="display: flex; justify-content: space-between;"> <span>1. Yes</span> <span>2. No <b>SKIP TO Q25.</b></span> </div>																	
Q24e. “How was the matter resolved?”	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>1. Still unresolved</td> </tr> <tr> <td>2. Out of court settlement</td> </tr> <tr> <td>3. Dispute resolution</td> </tr> <tr> <td>4. Other (please specify): _____</td> </tr> <tr> <td> </td> </tr> </table>	1. Still unresolved	2. Out of court settlement	3. Dispute resolution	4. Other (please specify): _____													
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3. Dispute resolution																		
4. Other (please specify): _____																		

<p>Q25. "Name all the places you think you could address any problem encountered in the pharmaceutical industry:"</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>						
<p><b><u>GOVERNMENT INTERVENTION</u></b></p>						
<p><b>CHECK F1a: IF IT IS NOT A DRUG SERV PHARMACY CONTINUE, OTHERWISE SKIP TO Q29.</b></p>						
<p>***Q26a. "Has the Health Corporation Limited (HCL) impacted on your pharmacy in any way?"</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">1. Yes</td> <td style="width: 50%; padding: 5px;">2. No GO TO Q27a.</td> </tr> <tr> <td style="height: 20px;"></td> <td style="height: 20px;"></td> </tr> </table>		1. Yes	2. No GO TO Q27a.			
1. Yes	2. No GO TO Q27a.					
<p>***Q26b. "Please explain:"</p> <hr/> <hr/> <hr/> <hr/>						
<p>***Q27a. "Has the Drug Serv Program impacted on your pharmacy in any way?"</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">1. Yes</td> <td style="width: 50%; padding: 5px;">2. No GO TO Q28a.</td> </tr> <tr> <td style="height: 20px;"></td> <td style="height: 20px;"></td> </tr> </table>		1. Yes	2. No GO TO Q28a.			
1. Yes	2. No GO TO Q28a.					

<b>***Q27b. "Please explain:"</b>      									
<b>***Q28a. "Are there any actions/ policy/ regulations by the Government which have adversely impacted your ability in any way to supply drugs to consumers?"</b>									
<table border="1"> <tr> <td>1. Yes</td> <td>2. No GO TO Q29.</td> </tr> <tr> <td></td> <td></td> </tr> </table>			1. Yes	2. No GO TO Q29.					
1. Yes	2. No GO TO Q29.								
<b>***Q28b. "Please specify:"</b>      									
<b>ASK Q28C only if option '1' is selected in Q28a above.</b>									
<b>***Q28c. "Did you take any steps to address the matter?"</b>									
<table border="1"> <tr> <td>1. Yes</td> <td>2. No GO TO Q29.</td> <td>3. N/A GOES TO Q29.</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>			1. Yes	2. No GO TO Q29.	3. N/A GOES TO Q29.				
1. Yes	2. No GO TO Q29.	3. N/A GOES TO Q29.							
<b>***Q28d. "Was the matter resolved?"</b>									
<table border="1"> <tr> <td>1. Yes.</td> <td>2. No.</td> </tr> <tr> <td></td> <td></td> </tr> </table>			1. Yes.	2. No.					
1. Yes.	2. No.								

<p>Q29. "Would you say that during the period in which you have been operating at the retail level, a greater number of consumers have been able to buy prescription drugs at more reasonable prices?"</p> <table border="1"> <tr> <td>1. Yes</td> <td>2. No</td> </tr> <tr> <td></td> <td></td> </tr> </table>		1. Yes	2. No						
1. Yes	2. No								
<p>Q30a. "Please select one of the following: "During the period in which I have been operating as a retailer of prescription drugs I've seen _____ in the effectiveness of prescription drugs in Jamaica"</p> <table border="1"> <tr> <td>1. ... a considerable improvement</td> </tr> <tr> <td>2. ... a slight improvement</td> </tr> <tr> <td>3. ... no difference</td> </tr> <tr> <td>4. ... a slight decline</td> </tr> <tr> <td>5. ... a significant decline</td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> </table>		1. ... a considerable improvement	2. ... a slight improvement	3. ... no difference	4. ... a slight decline	5. ... a significant decline			
1. ... a considerable improvement									
2. ... a slight improvement									
3. ... no difference									
4. ... a slight decline									
5. ... a significant decline									
<p>Q30b. "Please explain why you hold this view?"</p> <hr/>									
<p>Q31a. "Do you think there is a need for Jamaicans to have greater access to reasonably priced, effective prescription drugs?"</p> <table border="1"> <tr> <td>1. Yes</td> <td>2. No <b>SKIP TO Q32</b></td> </tr> </table>		1. Yes	2. No <b>SKIP TO Q32</b>						
1. Yes	2. No <b>SKIP TO Q32</b>								
<p>Q31b. "What steps could be taken by the Government to ensure that reasonably priced, effective prescription drugs are available to more Jamaicans?"</p> <hr/>									
<p>Q32. "Do you think there is a need for the Government to increase the awareness of generic</p>									

drugs?”							
1. Yes		2. No.					
<p>Q33. “We are interested in learning about your evaluation of the use of prescription products. Please selection the option that BEST represents your position.”</p> <p><b>SD= Strongly disagree; D= Disagree; N= Neither agree nor disagree; A= Agree; SA= Strongly agree; DK= Do not know</b></p>							
	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>DK</b>	
a. The price difference between generic and innovator products is often so great I feel I must offer consumers products with generic substitutes:	5	4	3	2	1	9	
b. All generics that are rated as bioequivalent can be considered therapeutically equivalent with the innovator products:	5	4	3	2	1	9	
c. There is no real difference between most innovator products and their generic equivalents:	5	4	3	2	1	9	
d. I support generic substitution for innovator prescription products:	5	4	3	2	1	9	
e. Few physicians are opposed to the use of generics today:	5	4	3	2	1	9	
f. In order to keep customers, I have to provide innovator drugs.	5	4	3	2	1	9	
g. I regularly discuss the difference between generic and innovator drugs with my customers	5	4	3	2	1	9	
<p><b>“WE HAVE COME TO THE END OF THIS INTERVIEW. YOUR CO-OPERATION HAS BEEN APPRECIATED!”</b></p>							



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## APPENDIX H. WHOLESALE QUESTIONNAIRE

### IDRC FUNDED RESEARCH INTO THE PHARMACEUTICAL INDUSTRY

#### Introduction

Through a competitive process, in November 2005, we were awarded a grant to conduct research into the Pharmaceutical sector. The grant was made by the International Development Research Centre (IDRC) in Ottawa, Canada; and the Jamaica Fair Trading Commission (FTC) was one of four competition agencies that were awarded. The main objective of the study is to identify factors which hinder competition within the Pharmaceutical sector; and recommend to policy-makers, measures for enhancing competition in the distribution of prescription drugs sold in Jamaica. A more competitive prescription drug market will, among other things, conduce to greater access by Jamaicans to more effective treatment of ailments.

Toward this end, we will examine structural, behavioral and informational factors that might be influencing the competitiveness of the prescription drugs industry. Data to be used to carry out the study will be collected primarily through direct interviews with stakeholders. The study will focus primarily on prescription drugs used to treat the following chronic ailments: Arthritis, Asthma, Diabetes, High Cholesterol and Hypertension. The Consumer Affairs Commission (CAC) and the University of Technology (UTECH) are collaborating with the FTC in this effort.

#### Confidentiality Notice to Participants

- You have the right to abstain from participation in this research;
- You have the right to terminate your participation at any time;
- You have the right to refuse to answer any question;
- Your replies shall be held in strict confidence;
- Your identity shall be kept strictly confidential;
- At the conclusion of this research project, any information that reveals your identity shall be destroyed. No information revealing your identity shall be included in the final report or in any other communication prepared in the course of this research project **unless you consent to its inclusion in writing.**

I \_\_\_\_\_ have been advised of the information contained in the Notice provided above and consent to participate in the research. Further, I **consent/ do not consent** to the inclusion of my identity in any report or communication arising out of this research.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

WHOLESALEERS! WE NEED TO HEAR FROM YOU...		For Official Use only																		
<b>[READ Confidentiality clause.]</b>																				
Interviewee's Name: _____ Position/ Title: _____																				
Name of Business: _____ Contact Number (s): _____																				
Full Business Address: _____ _____ _____																				
Interviewer: _____ Date: _____ Time: _____																				
<b>COMPANY PROFILE</b>																				
F1. "How many years have you been in business as a pharmaceutical wholesaler?"																				
<table border="1"> <tbody> <tr> <td>1. Less than a year</td> </tr> <tr> <td>2. 1 year or more but less than 2 years</td> </tr> <tr> <td>3. 2 years or more but less than 5 years</td> </tr> <tr> <td>4. 5 years or more but less than 10 years</td> </tr> <tr> <td>5. 10 years or more</td> </tr> <tr> <td> </td> </tr> </tbody> </table>		1. Less than a year	2. 1 year or more but less than 2 years	3. 2 years or more but less than 5 years	4. 5 years or more but less than 10 years	5. 10 years or more														
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2. 1 year or more but less than 2 years																				
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4. 5 years or more but less than 10 years																				
5. 10 years or more																				
F2. "How many wholesalers would you consider to be your <u>main</u> rivals?" _____																				
F3a. "Do you (this wholesale) have any affiliation/business relationship with any of the following?"																				
<table border="1"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>1. Manufacturer</td> <td>1</td> <td>2</td> </tr> <tr> <td>2. Other Wholesaler</td> <td>1</td> <td>2</td> </tr> <tr> <td>3. Other (specify): _____</td> <td>1</td> <td>2</td> </tr> <tr> <td>4. Other (specify): _____</td> <td>1</td> <td>2</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			Yes	No	1. Manufacturer	1	2	2. Other Wholesaler	1	2	3. Other (specify): _____	1	2	4. Other (specify): _____	1	2				
	Yes	No																		
1. Manufacturer	1	2																		
2. Other Wholesaler	1	2																		
3. Other (specify): _____	1	2																		
4. Other (specify): _____	1	2																		

<p>F3b. "If so, please describe the affiliation or business relationship:"</p> <table border="1" style="margin-left: 20px; width: 250px;"> <tr><td>1. owner/ subsidiary</td></tr> <tr><td>2. interlocking directors</td></tr> <tr><td>3. belong to the same group</td></tr> <tr><td>4. Other (specify)</td></tr> </table> <table border="1" style="margin-left: 20px; width: 600px;"> <tr> <td></td> <td colspan="4" style="text-align: center;">F3b.</td> </tr> <tr> <td>1. Manufacturers</td> <td>1.</td> <td>2.</td> <td>3.</td> <td>4. _____</td> </tr> <tr> <td>2. Other Wholesalers</td> <td>1.</td> <td>2.</td> <td>3.</td> <td>4. _____</td> </tr> <tr> <td>4. Other (specify): _____</td> <td>1.</td> <td>2.</td> <td>3.</td> <td>4. _____</td> </tr> <tr> <td>5. Other (specify): _____</td> <td>1.</td> <td>2.</td> <td>3.</td> <td>4. _____</td> </tr> </table>	1. owner/ subsidiary	2. interlocking directors	3. belong to the same group	4. Other (specify)		F3b.				1. Manufacturers	1.	2.	3.	4. _____	2. Other Wholesalers	1.	2.	3.	4. _____	4. Other (specify): _____	1.	2.	3.	4. _____	5. Other (specify): _____	1.	2.	3.	4. _____	
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4. Other (specify): _____	1.	2.	3.	4. _____																										
5. Other (specify): _____	1.	2.	3.	4. _____																										
<b>UNFAIR BUSINESS PRACTICES</b>																														
<p>Q1a. "Are there any actions by anyone which have adversely affected your ability to distribute prescription drugs to retailers?"</p> <table border="1" style="margin-left: 20px; width: 300px;"> <tr> <td>1. Yes</td> <td>2. No <b>GO TO Q2.</b></td> </tr> <tr> <td style="height: 20px;"></td> <td style="height: 20px;"></td> </tr> </table>	1. Yes	2. No <b>GO TO Q2.</b>																												
1. Yes	2. No <b>GO TO Q2.</b>																													
<p>Q1b. "Who carried out the act?"</p> <table border="1" style="margin-left: 20px; width: 400px;"> <tr><td>1. HMO</td></tr> <tr><td>2. Physicians</td></tr> <tr><td>3. Retailers</td></tr> <tr><td>4. Other Wholesalers</td></tr> <tr><td>5. Other (please specify) _____</td></tr> <tr><td style="height: 20px;"></td></tr> </table>	1. HMO	2. Physicians	3. Retailers	4. Other Wholesalers	5. Other (please specify) _____																									
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5. Other (please specify) _____																														
<p>Q1c. "Provide details of the action:"</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>																														

[illegible]

<b>Interviewer: Check Q2; If 'no' is selected for all ailments, SKIP to Q5a. Otherwise ask Q3a through to Q4F only for options with 'yes'.</b>				
Q3a. "Do these contractual arrangements restrict your ability to SOURCE prescription drugs?"				
Q3b. "If yes, explain your answer."				
	<b>Q3a.</b>		<b>Q3b.</b>	
	Yes	No		
1. Physicians	1	2		
2. Retailers	1	2		
3. Manufacturers	1	2		
4. Other Wholesalers	1	2		
5. HMO	1	2		
6. Other (specify): _____	1	2		
Q3c. "Are there any (other) actions which have negatively affected your ability to source drugs?"				
<div> <div>1. Yes</div> <div>2. No <b>SKIP TO Q4a.</b></div> </div>				
Q3d. "Please provide detail"				
_____				
_____				
_____				
_____				
_____				
_____				
_____				
_____				
Q3e. "Did you make an attempt to resolve the matter?"				
<div> <div>1. Yes</div> <div>2. No <b>SKIP TO Q4a.</b></div> </div>				

Q3f. "How was the matter resolved?"				
1. Still unresolved				
2. Out of court settlement				
3. Dispute resolution				
4. Other (please specify): _____				
Q4a. <b>CHECK Q2. Ask Q4a. FOR THOSE WITH WHOM THEY HAVE CONTRACTUAL ARRANGEMENTS</b>				
"Do these contractual arrangements restrict your ability to SUPPLY prescription drugs?"				
Q4b. "If yes, explain your answer."				
	Q4a.		Q4b.	
	Yes	No		
1. Physicians	1	2		
2. Retailers	1	2		
3. Manufacturers	1	2		
4. Other Wholesalers	1	2		
5. HMO	1	2		
6. Other (specify): _____	1	2		
Q4c. "Are there any (other) actions which have adversely affected your ability to supply drugs?"				
1. Yes				
2. No <b>SKIP TO Q5a.</b>				
Q4d. "Please specify the action"				
_____				
_____				
_____				
_____				
_____				
_____				

Q4e. "Did you make any attempt to seek redress for any of the actions?"								
1. Yes                      2. No <b>SKIP TO Q5a.</b>								
Q4f. "Explain the action taken:"								
1. Out of court settlement								
2. Dispute resolution								
3. Other (please specify): _____								
Q5a. "Do your suppliers of prescription drugs recommend the price at which you should resell the products they supply you with?"								
1. Yes	No <b>SKIP TO Q6a.</b>							
Q5b. "Select all ailments this(these) drug(s) is(are) used to treat:" <b>SELECT ALL THAT APPLY</b>								
<table border="1"> <tr> <td>1 Arthritis</td> </tr> <tr> <td>2. Asthma</td> </tr> <tr> <td>3. High Cholesterol</td> </tr> <tr> <td>4. Diabetes (Sugar)</td> </tr> <tr> <td>5. Hypertension (Pressure)</td> </tr> <tr> <td>6. None of the above</td> </tr> </table>		1 Arthritis	2. Asthma	3. High Cholesterol	4. Diabetes (Sugar)	5. Hypertension (Pressure)	6. None of the above	
1 Arthritis								
2. Asthma								
3. High Cholesterol								
4. Diabetes (Sugar)								
5. Hypertension (Pressure)								
6. None of the above								
Q5c. "Would you be penalized by your supplier for not adhering to the recommendations?"								
1. Yes	2. No							
Q6a. "Do you recommend the price at which your retailers should resell any product you supply to them?"								
1. Yes	2. No <b>SKIP TO Q7.</b>							



Q6b. "Identify the ailment this(these) drug(s) is(are) used to treat:"		
1. Arthritis 2. Asthma 3. High Cholesterol 4. Diabetes (Sugar) 5. Hypertension (Pressure) 6. None of the above		
Q6c. "Is there any penalty for not adhering to recommendations?"		
1. Yes	2. No	
Q7. "Name all the places you think you could get redress for any problem encountered in the health care industry:"		
<hr/> <hr/> <hr/> <hr/> <hr/>		
Q8a. "Has the Health Corporation Limited (HCL) or the National Health Fund (NHF) impacted on your Company in any way?"		
1. Yes	2. No <b>GO TO Q9a.</b>	
Q8b. Please explain:		
<hr/> <hr/>		
Q9a. "Are there any actions/policies by the Government which might have negatively affected your ability to source and/or distribute prescription drugs?"		
1. Yes	2. No <b>SKIP TO Q10.</b>	
Q9b. "Provide details:"		
<hr/> <hr/> <hr/> <hr/>		

Q9c. "Were any steps taken by you or anyone else to address the issue?" 1. Yes                                      2. No <b>SKIP TO Q9e.</b>	
Q9d. "How was the matter resolved?" 1. Still unresolved 2. Court Action 3. Out of Court Settlement 4. Dispute Resolution 5. Other (please specify)? _____	
Q9e. "What suggestions do you have to correct the issue?" _____ _____ _____ _____ _____ _____ _____	
<b>DISTRIBUTION OF PRESCRIPTION DRUGS IN JAMAICA</b>	
Q10. "Which of the following businesses do you supply prescription drugs?" <b>SELECT ALL THAT APPLY</b>  1. Pharmacies 2. Private Hospitals 3. Public Hospitals 4. Medical Centres 5. Clinics 6. Physician's Office 7. Wholesalers 8. Other (please specify): _____	

Q11a. "Do you supply prescription drugs to treat the following ailments?"				
	Ailment	Yes	No	
	1. Arthritis	1	2	
	2. Asthma	1	2	
	3. High Cholesterol	1	2	
	4. Diabetes (Sugar)	1	2	
	5. Hypertension (Pressure)	1	2	
	6. Other (specify): _____	1	2	
Q11b. "For the ailments you have selected above what type of drug, generic or innovator, you supply?"				
	Ailment	Generic Only	Innovator only	Both
	1. Arthritis	1	2	3
	2. Asthma	1	2	3
	3. High Cholesterol	1	2	3
	4. Diabetes (Sugar)	1	2	3
	5. Hypertension (Pressure)	1	2	3
	6. Other (specify): _____	1	2	3
Q12. "For the prescription drugs you distribute, out of 100 what is the ratio of innovator to generic?"				
_____ generic and _____ innovator [must = 100]				
Q13. "What factors influence the types of drug you stock/distribute?"				
1. Advertisement				
2. Demand for the drug				
3. Reputation of the drug				
4. Retailers Recommended/ Request				
5. Incentives provided by the manufacturer				
6. Newness/ Innovativeness of the drug				
7. Profit margin on the drug				
8. Other (specify): _____				
Q14a. Do you manufacture any of the drugs you distribute?"				
1. Yes                      2. No <b>GO TO Q15a.</b>				

Q14b. "What ailments are these drugs used to treat?"				
Ailment				
1. Arthritis				
2. Asthma				
3. High Cholesterol				
4. Diabetes (Sugar)				
5. Hypertension (Pressure)				
6. Other (specify): _____				
Q15a. "For each of the following ailments indicate whether you receive all your prescription drugs from a single manufacturer?"				
Q15b. "What is the main reason for this?"				
Ailment	Yes	No	Main reason for this	
1. Arthritis	1	2		
2. Asthma	1	2		
3. High Cholesterol	1	2		
4. Diabetes (Sugar)	1	2		
5. Hypertension (Pressure)	1	2		
6. Other (specify): _____	1	2		
Q16a. "Are you an exclusive distributor of any prescription drugs in Jamaica?"				
1. Yes		2. No <b>GO TO Q17a.</b>		
Q16b. "Are any of the drugs you exclusively distribute used to treat any of the following ailments?"				
Ailment		Yes	No	
1. Arthritis		1	2	
2. Asthma		1	2	
3. High Cholesterol		1	2	
4. Diabetes (Sugar)		1	2	
5. Hypertension (Pressure)		1	2	
6. Other (specify): _____		1	2	

Q17a. "Is there any Parish in Jamaica to which you do not distribute your products?" 1. Yes Please specify: 1. Kingston & St. Andrew 2. St. Catherine 3. Clarendon 4. St. Elizabeth 5. Manchester 6. Westmoreland 7. Hanover 8. St. James 9. St. Ann 10. St.Mary 11. Trelawny 12. Portland 13. St. Thomas																						
Q17b. "Why do not you distribute your products to these Parishes?" _____																						
Q18a. "Do you require retailers to purchase drug Y, in order to get another drug X?" 1. Yes                      2. No <b>SKIP TO Q19.</b>																						
Q18b. "Which of the following ailments are Drug X used to treat?" <table border="0"> <thead> <tr> <th>Ailment</th><th>Yes</th><th>No</th></tr> </thead> <tbody> <tr> <td>1. Arthritis</td><td>1</td><td>2</td></tr> <tr> <td>2. Asthma</td><td>1</td><td>2</td></tr> <tr> <td>3. High Cholesterol</td><td>1</td><td>2</td></tr> <tr> <td>4. Diabetes (Sugar)</td><td>1</td><td>2</td></tr> <tr> <td>5. Hypertension (Pressure)</td><td>1</td><td>2</td></tr> <tr> <td>6. Other (specify): _____</td><td>1</td><td>2</td></tr> </tbody> </table>	Ailment	Yes	No	1. Arthritis	1	2	2. Asthma	1	2	3. High Cholesterol	1	2	4. Diabetes (Sugar)	1	2	5. Hypertension (Pressure)	1	2	6. Other (specify): _____	1	2	
Ailment	Yes	No																				
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4. Diabetes (Sugar)	1	2																				
5. Hypertension (Pressure)	1	2																				
6. Other (specify): _____	1	2																				
Q19. "Would you say that during the period in which you have been operating as a wholesaler that a greater number of consumers have been able to buy prescription drugs at more reasonable prices?"  1. Yes                  2. No																						
Q20a. "Please select one of the following: 'During the period in which I have been operating as a wholesaler of prescription drugs I've seen _____ in the distribution of prescription drugs in Jamaica'"																						

1. a considerable improvement 2. a slight improvement 3. no difference 4. a slight decline 5. a significant decline	
Q20b. "To what aspect of the distribution are you referring?"  1. time of delivery to retailers 2. variety of drugs being distributed in Jamaica 3. the areas in which the drugs are being distributed 4. Government regulations within the industry 5. other (please specify): _____ _____	
Q21a. "Do you think there is a need for more Jamaicans to have access to reasonably priced, effective prescription drugs?"  1. Yes                      2. No <b>SKIP TO Q22a.</b>	
Q21b. "What steps could be taken by the Government to ensure that reasonably priced, effective prescription drugs are available to more Jamaicans?" _____ _____	
_____ _____	
<b>DISTRIBUTION OF INFORMATION</b>	
Q22a. "Are you a member of any registered trade Associations for wholesalers of pharmaceutical products in Jamaica?" 1. Yes              2. No <b>GO TO Q23.</b>	
Q22b. "If yes, which one(s)?"	
Q22c. "How many meetings are held in a year?"	
Q22d. "Do they collect or disseminate wholesaler-specific information with regard to the distribution of prescription drugs?"	
Q22e. "Is information on price and/or quantity of drugs from individual wholesalers available?"	

Q22b. Name of the Trade Association	Q22c. Frequency of Meetings	Q22d. Information shared	Q22e. Wholesalers share info		
		1. Yes    2. No	1. Yes    2. No		
		1. Yes    2. No	1. Yes    2. No		
		1. Yes    2. No	1. Yes    2. No		
Q22f. "What other type of information is available through the Association?"					
_____					
Q23. "How do you currently receive information on new drugs?"					
1. Physicians/ Doctors					
2. Pharmacists					
3. Ministry of Health					
4. Internet					
5. Journals					
6. Manufacturers					
7. Drug Reps					
8. Other (please specify):					
Q24. "To what extent do you provide information on prescription drugs directly to the following:"					
	Always	Often	Sometimes	Seldom	Never
1. Retailers	1	2	3	4	5
2. Doctors	1	2	3	4	5
3. Consumers	1	2	3	4	5
4. Other (please specify):	1	2	3	4	5
Q25a. "To what extent do you inform retailers of the availability of generic drugs?"					
1. Always		<b>SKIP TO Q26a.</b>			
2. Often		<b>SKIP TO Q26a.</b>			
3. Sometimes		<b>GO TO Q25b.</b>			
4. Seldom		<b>GO TO Q25b.</b>			
5. Never		<b>GO TO Q25b.</b>			
Q25b. "What are the reasons for not doing so?"					
_____					
_____					
_____					

Q26a. "Have you ever pre-announced any change in any aspect of your business policy/strategy?" 1. Yes                      2. No <b>GO TO END</b>																					
Q26b. "What aspect of your business strategy do you pre-announce any change in?" <b>Select all that apply.</b>  <table border="1" data-bbox="219 489 941 642"> <tr><td>1. Price changes</td></tr> <tr><td>2. Changes in availability of a drug</td></tr> <tr><td>3. Other (please specify): _____</td></tr> <tr><td> </td></tr> </table>	1. Price changes	2. Changes in availability of a drug	3. Other (please specify): _____																		
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<b>Interviewer: Check Q26b. Ask Q26c only if '1' is selected.</b>  Q26c. "To whom do you normally communicate information on price changes?" <table border="1" data-bbox="219 789 1214 1209"> <tr> <td></td> <td>NATURE OF THE CHANGES</td> </tr> <tr> <td></td> <td>Price changes</td> </tr> <tr><td>1. Employees</td><td>1</td></tr> <tr><td>2. Customers/ Retailers</td><td>1</td></tr> <tr><td>3. General Public</td><td>1</td></tr> <tr><td>4. Affiliate Retailers</td><td>1</td></tr> <tr><td>5. Affiliate Wholesalers</td><td>1</td></tr> <tr><td>6. Competing Wholesalers</td><td>1</td></tr> <tr><td>7. Other (please specify): _____</td><td>1</td></tr> <tr><td>8. Other (please specify): _____</td><td>1</td></tr> </table>		NATURE OF THE CHANGES		Price changes	1. Employees	1	2. Customers/ Retailers	1	3. General Public	1	4. Affiliate Retailers	1	5. Affiliate Wholesalers	1	6. Competing Wholesalers	1	7. Other (please specify): _____	1	8. Other (please specify): _____	1	
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7. Other (please specify): _____	1																				
8. Other (please specify): _____	1																				
<b>Interviewer: Check Q26b. Ask Q26d only if '2' is selected.</b>  Q26d. "To whom do you normally communicate information on changes in the availability of a drug?" <table border="1" data-bbox="219 1392 1164 1843"> <tr> <td></td> <td>NATURE OF THE CHANGES</td> </tr> <tr> <td></td> <td>Changes in availability of a drug</td> </tr> <tr><td>1. Employees</td><td>2</td></tr> <tr><td>2. Customers/ Retailers</td><td>2</td></tr> <tr><td>3. General Public</td><td>2</td></tr> <tr><td>4. Affiliate Retailers</td><td>2</td></tr> <tr><td>5. Affiliate Wholesalers</td><td>2</td></tr> <tr><td>6. Competing Wholesalers</td><td>2</td></tr> <tr><td>7. Other (please specify): _____</td><td>2</td></tr> <tr><td>8. Other (please specify): _____</td><td>2</td></tr> </table>		NATURE OF THE CHANGES		Changes in availability of a drug	1. Employees	2	2. Customers/ Retailers	2	3. General Public	2	4. Affiliate Retailers	2	5. Affiliate Wholesalers	2	6. Competing Wholesalers	2	7. Other (please specify): _____	2	8. Other (please specify): _____	2	
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6. Competing Wholesalers	2																				
7. Other (please specify): _____	2																				
8. Other (please specify): _____	2																				



<b>Interviewer: Check Q26b. Ask Q26e only if '3' is selected.</b>		
Q26e. "To whom do you normally communicate information on any other change?"		
	NATURE OF THE CHANGES	
	Other (specify)	
1. Employees	3	
2. Customers/ Retailers	3	
3. General Public	3	
4. Affiliate Retailers	3	
5. Affiliate Wholesalers	3	
6. Competing Wholesalers	3	
7. Other (please specify):	3	
8. Other (please specify):	3	
<b>END</b>		
<b>"WE HAVE COME TO THE END OF THIS INTERVIEW. YOUR CO-OPERATION HAS BEEN APPRECIATED!"</b>		