

*A Case Study of Jamaica's Health Financing System and its Impact on  
the Performance of the General Health System*



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A Thesis submitted in partial fulfillment of the requirement for the degree of Master of Science in International Health.

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Declaration

The work of others used for this Thesis, either from printed sources, internet or discussions, has been carefully acknowledged and referenced according to the requirements. The Thesis – *“A Case Study of Jamaica’s Health Financing System and its Impact on the Performance of the General Health System”* is my own work.

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September 28, 2010

## **Abstract**

**Title:** A Case Study of Jamaica's Health Financing System and its Impact on the Performance of the General Health System

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This Paper aims to outline Jamaica's health financing system by describing how it carries out the various functions to achieve its objectives and determine whether achievements have had any impact on the performance of the general health system. The Study is based on a desk review of policy and budgetary documents and augmented with personal experience of the Jamaican health sector.

Results show that the Jamaica's health financing system carries out its functions primarily through the Ministry of Health. Revenue collection mainly occurs domestically via general and ear marked taxes. Pooling arrangements within the context of national funds tend to focus on drug provision. Government purchasing is mainly passive. The financing system appears to have contributed to an improvement in the health status of the population by prioritizing the main health problems and granting universal access to public health facilities, however, pooling strategies seem to have led to demand-side misuse that highlight and perpetuate supply-side constraints.

Recommendations made include pooling out-of-pocket private expenditure to stimulate a social health insurance scheme, using already existing Global Fund amenities and expanding access to local resources such as the National Health Fund. Strategies discussed to improve performance are gate keeping, integration of financing strategies to remove duplication, and further inclusion of the private sector through contracting.

Key words: *fund, finance, Jamaica, health system.*

## ***Acknowledgements***

I would like to thank Mr. Yme Van den Berg, who patiently and meticulously guided the preparation of this Thesis. It was an invaluable learning experience and life lesson. I would also like to thank the members of the Jamaica Association of Health Executives, particularly Mr. Bill Poinset, Mr. Cecil White and Mr. Earl McKenzie for their contribution and direction. Also, my family and friends for the encouragement and support.

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## **List of Abbreviations and Acronyms**

ART	Antiretroviral Therapy
BPH	Benign Prostatic Hyperplasia
CNCDs	Chronic Non communicable diseases
CVDs	Cardiovascular diseases
ECOSOC	United Nations Economic and Social Council
GFATM	The Global Fund to fight AIDS, Tuberculosis and Malaria
GHI	Global Health Initiatives
GoJ	Government of Jamaica
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
HSSP	Health Sector Strategic Plan
IMF	International Monetary Fund
JMD	Jamaican Dollars
KPH	Kingston Public Hospital
MDGs	Millennium Development Goals
MOH	Jamaica Ministry of Health and Environment
MOF	Jamaica Ministry of Finance and the Public Sector
NIS	National Insurance Scheme
NHF	National Health Fund of Jamaica
NHP	National HIV/STI Programme
NSP	National HIV/AIDS/STI Strategic Plan
PHC	Primary Health Care
PIOJ	Planning Institute of Jamaica
RHA	Regional Health Authority
SCT	Special Consumption Tax
VEN	Vital, Essential, Necessary Items and Drug List
UWI	University of the West Indies

## 1 Introduction

The World Health Organization identified financing systems as one of the six building blocks of health (WHO, 2007). This is because the health financing system provides the resources for the operation of health systems. Health financing systems have three inter-related roles: *to collect funds; to pool these funds; and to purchase health services* (WHO, 2000). These functions can be implemented through various mechanisms such as social health insurance, private voluntary insurance or direct purchase by consumers (Gottret and Schieber, 2006).

Inline with its functions, a well performing health financing system should have the following objectives:

- (i) To collect sufficient and sustainable resources for health;
- (ii) To pool resources to ensure that everyone has financial access to health services
- (iii) To use these resources optimally to purchase health services; (WHO, 2005).

It is important that these objectives are met because how a country finances its health care system has implications not just for how people pay for health care but also for who uses health services, how often and how much (Gottret and Schieber, 2006). In recognition of this, a resolution on sustainable health financing, universal coverage and social health insurance was endorsed in the *58th World Health Assembly* in May 2005 (WHO, 2005b).

While there are no set strategies on how to finance a health system, long term goals dictate that the optimal design cannot be assessed in isolation from the epidemiological situation, strength and nature of the economy; the stability of the government and its institutions, as well as the prevailing political and policy environment (USAID, 2009). Indeed these factors tend to affect fiscal space and therefore government allocations.



How well a health system performs depends on how well it achieves the goals for which it should be held accountable (WHO, 2000). The *2000 World Health Report* defined three goals for health systems: *good health, responsiveness to the expectations of the population, and fair financial contribution*. While the health financing system does not act alone in affecting objectives and final goals, the way a health system is financed can adversely impact on the health goals (Gottret et al., 2008). For example, being able to mobilize sufficient funding affects the health services that can be offered and the size of the risk pools affects the extent to which fair and equitable contributions to health care can be achieved. The ultimate responsibility for performance of the country's health system lies with government.

Three of the eight Millennium Development Goals (MDG) are directly related to health (MDG 4, 5 and 6) and others have an indirect influence (Banati and Moatti, 2008). Financing can, therefore, impact performance towards achieving the MDGs. There has been a dramatic increase in health spending globally with most resources allocated to disease specific MDG 6, which relates to HIV/AIDS, tuberculosis and malaria (Oomman et al., 2008). But in middle-income countries such as Jamaica, donors only play a minor role in the financing of health systems, and major increases in external resources for health in these countries are unlikely (Gottret et al., 2008). High out-of-pocket payments and inefficient purchasing arrangements also pose significant constraints to universal coverage and better risk pooling (Carrin and James, 2004).

Under these circumstances, certain factors become important public sector priorities, including ensuring equitable, efficient, and sustainable financing; developing effective and equitable risk pooling and prepayment mechanisms, getting better value for money through allocative and technical efficiency gains, targeting financing to the poor and vulnerable, and learning from the experiences of the high-income countries (Gottret and Schieber, 2006).

## 2 Rationale and Objectives

Jamaica's health reform policies have been a major focus nationally. It has been argued that the current policy environment may be unsustainable due to a lack of domestic financial resources, options for additional financing and the strain the policies appear to have imposed on an already struggling health system. Sustaining the current policy environment and the integrity of the health system has, therefore, become a concern for the Government.

To date, no studies have been conducted to assess Jamaica's health financing system or the extent of its impact on the performance of the general health system, despite the fact that one strategy outlined in the 2006-2010 Health Sector Strategic Plan (HSSP) is the implementation of a performance management system that aims to review/evaluate performance of the health system at various levels (MOH, 2006). The last comprehensive study that aimed to assess performance of Jamaica's health system was commissioned by the World Bank in 1994 (PAHO, 2001), so this Paper aims to add to the analytical gap in highlighting health financing policies, indicate where they have impeded or facilitated improved health system performance and inspire further research.

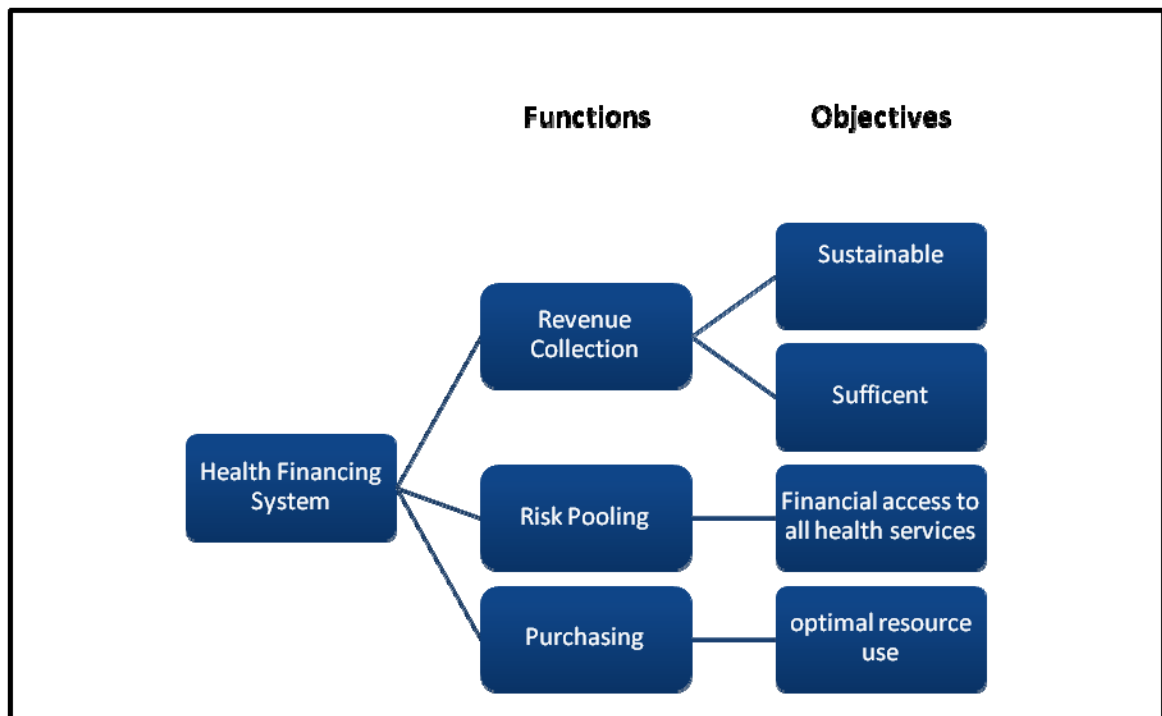
The Study aims to:

- *Describe the existing health financing system in Jamaica through the functions of revenue collection, risk pooling and purchasing*
- *Determine whether the health financing system has achieved its objectives*
- *Discuss the extent to which the health financing system has impacted on the health system performance.*
- *Make recommendations aimed at improving the attainment of each objective and health system performance.*

### 3 Methodology

This Study will provide an overview of Jamaica’s health financing tools, policies and trends, while highlighting the challenges. It will review Jamaica’s current health financing system using the framework outlined in Figure 1 below to outline the current structure of the System and its link to individuals and the population through discussion of the three functions. It will then aim to discuss whether the objectives of each function have been met.

**Figure 1 - Framework used to describe the health financing system**



Source: Adapted from Carrin and James, 2004: *Reaching universal coverage via social health insurance*, WHO, 2004.

Also, the Study will discuss the extent to which achievement (or lack) of these objectives may have impacted the performance of Jamaica's health system. In order to assess performance, the health system is narrowly defined as the "*activities under the control of the Ministry of Health (WHO, 2003)*". For the purposes of this Study, performance will be assessed in terms of *good health*, and *fair financial contribution* only. *Responsiveness* in the 2000 World Health Report refers to aspects that are not directly linked to health (WHO, 2000) and corresponds to the way in which the system actually responds to the population (WHO, 2001). This indicator measures user expectation and uses data collected through surveys to assess. It is difficult to measure this indicator within the Jamaican context because conducting and collecting questionnaires is not a regular occurrence in the public health system, so data is not readily available. Overall, *data used to assess performance will be mostly qualitative as quantitative data is lacking.*

Data collection was done through electronic searches of specific databases, namely: EIdis, PubMed and Google Scholar using key words – health financing, financial protection, health system. The bibliography of selected articles was also reviewed to find related documents. Articles were selected based on: relevance to subject area, year of publication, specificity to the Jamaican and regional context. Only published and grey international and local literature written between 2000 and 2009 were selected for use. Newspaper articles were minimally used because of the tendency to be biased.

## **Study Limitations**

Jamaica's health information system (HIS) lacks sufficient and current data. It was very difficult to obtain data relevant to some financing and health indicators. The HIS is also restricted to public sector data only; currently data on private providers is not collected. Only studies written in English were considered. As mentioned above, performance is primarily qualitatively assessed because of the lack of quantitative data, which is mostly outdated in keeping with the timeframe captured under this Paper.

## 4 Background

### 4.1 Demographic Profile

Jamaica is the largest English speaking Commonwealth Caribbean Island and the third largest island in the Region. It is located south of Cuba and the United States and is approximately 11,000 square/km in size. Jamaica is a former British Colony, having gained its independence on August 6, 1962. The island is divided into fourteen parishes, with three major urban areas: Kingston; the capital, Portmore and Montego Bay; the major tourist destination on the North Coast.

**Figure 2-Map of Jamaica**



Source: Maps of the World

Jamaica has a population of approximately 2.7 million, with an estimated growth rate below 1% since 1998 (PIOJ, 2008). The child (0-14 years) and youth population (15-24 years) is declining, while the elderly population (60 years and over) is the fastest growing age group (PIOJ, 2008). Therefore, Jamaica is classified as having a moderately aging population possibly caused by declining fertility and mortality rates and increased emigration rates (PAHO, 2001).

Jamaica's population has followed the global trend of rapid urbanization. Currently 53% of the population live in urban areas (WHO, 2006), specifically the Kingston Metropolitan Area.

#### **4.2 Economic Profile**

Jamaica is currently classified as having an upper middle income economy (World Bank, 2009), however, fiscal problems are constant in Jamaica's economy.

**Table 1-Global Economic Indicators for Jamaica**

	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Population, total	2,650,400	2,663,100	2,675,800	2,687,200
Population growth (annual %)	0.5	0.5	0.5	0.4
GDP per capita (current \$ US)	4,208	4,502	4,802	5,438
GDP growth rate (%)	1.0	2.7	1.4	-1.3
Inflation, consumer prices (annual %)	15.3	8.6	9.3	22
External Debt (%GNI)	62.6%	69.9%	82.7%	69.7%
Net ODA received (% of GNI)	0.4	0.2	0.3	0.6

*Source: Planning Institute of Jamaica, 2008, World Development Indicators, 2008*

Jamaica's greatest long-term challenge is the debt burden, which is the fourth highest in the world (ECOSOC, 2009a). Most recently, the economy has contracted and is depressed from the effects of major revenue fallout in numerous sectors namely: bauxite, tourism, remittances and export agriculture. This has led to sharp declines in government revenue and prompted a return to the International Monetary Fund (IMF) after ending an eighteen year relationship in 1995 (MOF, 2009).

### 4.3 Social Profile

Jamaica ranks 87 on the UNDP Human Development Index (UNDP, 2008) and is likely to attain many of the MDGs, including targets on poverty, child malnutrition, universal primary education, and access to safe drinking water (PIOJ/UNDP, 2004).

**Table 2 - Social Indicators for Jamaica**

Literacy rate, adult total (% of people ages 15 and above), 2008	85.9%
Total enrollment, primary (% net),2008	91%
Unemployment Rate, 2008	10.3%
Labour Force as a percentage of total population,2008	48.4%

Source: World Development Indicators, 2008, Statistical Institute of Jamaica, 2008

However, the labour market has felt the impact of the macroeconomic instabilities as evidenced in the high unemployment rate, particularly among the young (15-24 years) (STATIN, 2008). In 2007, this rate reached 23.6% (PIOJ, 2008). Jamaica has experienced double digit unemployment for most of the 1990s and early 2000s, with the rate for women twice as high as that for men (World Bank, 2009). This has contributed to the growth of an informal labour sector, which contributed approximately 43% of GDP in 2001 (ECOSOC, 2009b), as well as a reduction in tenured/fixed term employment (World Bank, 2004).



It is postulated that the high unemployment rate has also contributed to the high migratory rate, brain drain of educated Jamaicans and the increased crime rate (PIOJ, 2008). The World Bank estimates that at least 25% of Jamaicans currently reside abroad (World Bank, 2009). This migratory tendency of the population has led to a decrease in the labour supply (World Bank, 2009), which has had a significant impact on public health where it is estimated that approximately one-third of trained medical workforce have emigrated (ECOCOS, 2009a).

#### ***4.4 Environmental Profile***

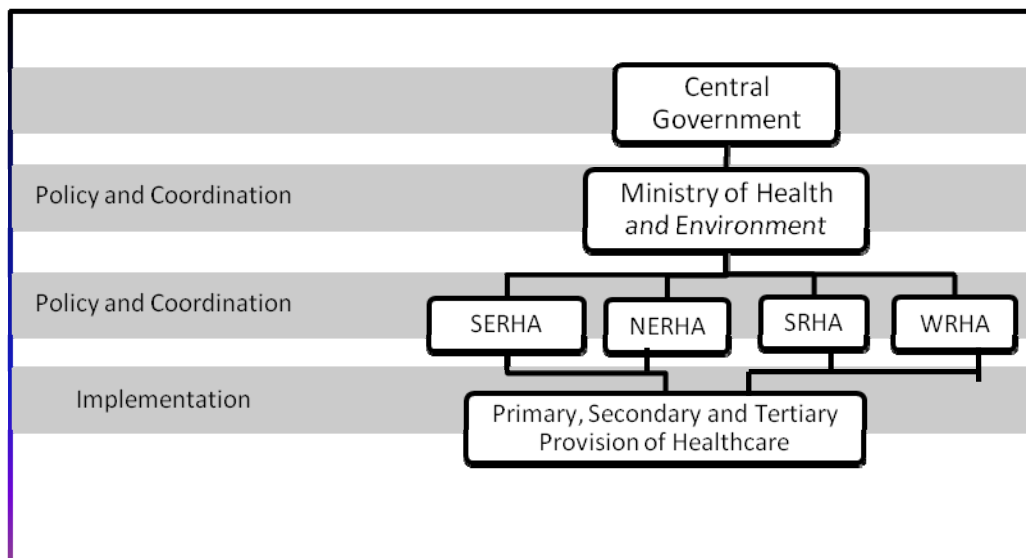
Economic activity has been severely disrupted over the past years by the frequent occurrence of storms, which have affected many sectors (PIOJ, 2008). Historically, the Jamaican economy has had an agricultural base dependent on a few staple exports, primarily sugar, banana and coffee (PIOJ, 2008). However, following an increased frequency of severe storms, the agricultural sector has stagnated due to the destruction of major farm lands and crops leading to the cessation of exports (PIOJ/UNDP, 2005). The Government has had to resort to reallocating financial resources to sustain these sectors, in order to maintain employment and foreign exchange revenues normally earned (PIOJ, 2008). Environmental management falls within the mandate of the Ministry of Health (MOH) and will, therefore, affect its budgetary allocations.

#### 4.5 Health Sector Strategic Planning and Organization of the Health System

The Ministry of Health and Environment developed a HSSP (2006-2010) that is committed to reaching international goals such as the MDGs (MOH, 2006). It clearly acknowledges the linkage between health and national development. However, the HSSP is not costed nor does it outline a clear framework for monitoring the health financing objectives. Overall the HSSP appears to be vague and unconscious of the economic context as it pertains to health financing.

The HSSP is operationalized through a three tiered health care system (primary, secondary and tertiary) consisting of both public and private providers (MOH, 2006). The Public Health Care System was decentralized following implementation of the Health Sector Reform Act of 1998 (PAHO, 2001). The MOH, together with its four semiautonomous Regional Health Authorities (RHAs), Agencies and related organizations make up the public health system and are responsible for health care delivery across the island (MOH, 2006). The four RHA are: South East (SERHA), North East (NERHA), Southern (SRHA) and Western (WRHA).

**Figure 3 - Hierarchical Organization and Function of Jamaica's Public Health System**



Each RHA has its own system of management and together are wholly responsible for twenty-four hospitals and over three hundred and fifty health centres and specialized institutions island wide (MOH, 2006) . However, despite good facility coverage, the quality of service delivered is poor at the primary level, mainly because of poor government funding allocation and severe staff shortages (GoJ, 2009) especially nurses and midwives, as well as a lack of equipment in some health centres (ECOSOC, 2009b).

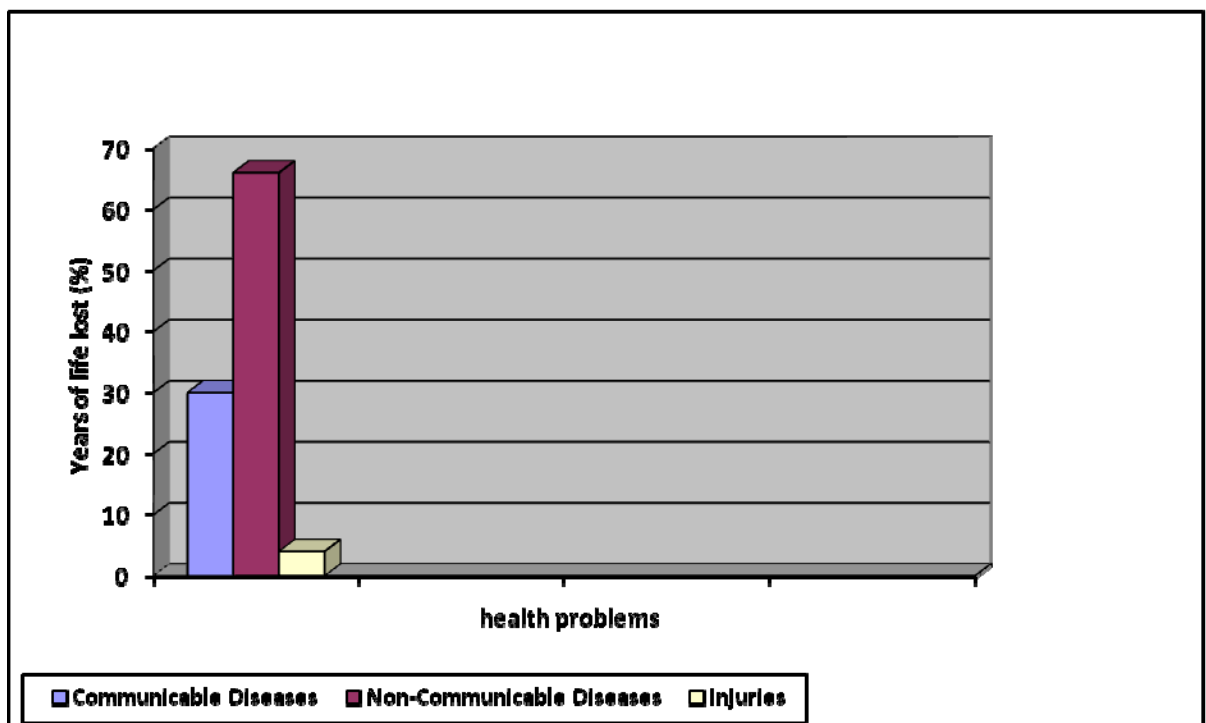
Recognizing that government spending is skewed to the secondary and tertiary provision of health services (67%) (PIOJ/UNDP, 2005), the MOH has identified four key strategic areas of the renewed primary health care model, focusing on strengthening leadership, information systems, health financing and human resources (ECOSOC, 2009b).

Private health providers are poorly regulated and monitored by the Government despite the fact that 75% of ambulatory care is delivered in the private sector (PAHO, 2001). The majority of Jamaicans in the middle or upper income bracket utilize private care, some exclusively (PIOJ, 2008).

#### 4.6 Main Health Problems

The three leading causes of mortality and morbidity are: violence and related injuries, sexually transmitted infections and reproductive disorders and chronic non-communicable diseases, particularly diabetes and hypertension (MOH, 2006).

**Figure 4 - Years of Life lost to main health problems in Jamaica**



Source: WHO Statistical Information System, 2002

### *Violence and Related Injuries*

Not only are the years of life lost notable but results from the *2007 Estimation of the Cost of Inter-personal Violence Study* conducted by the MOH, indicate that violence (directly) costs the Jamaican Health Sector JMD \$2.2 billion every year (PIOJ, 2008). During 2006, the direct cost of injuries due to personal violence was estimated at about 12% of total health expenditure and loss of productivity due to violence related injuries about 4% of GDP (JHLS, 2008). Jamaica's high crime rate, therefore, impacts not just the health sector but also the growth and development of other sectors.

### *Chronic Non-communicable Diseases (CNCDs)*

Jamaica's health care system, like most globally, is very much focused on acute diseases, despite the fact that there is a high frequency of familial history of CNCDs (PIOJ, 2008). Cardio-vascular diseases (CVDs) are the leading cause of death, disability and hospitalization nationally and account for a major portion of local health care spending (JSLC, 2008). Hypertension and diabetes are leading risk factors for CVDs (WHO, 2008). In Jamaica, hypertension is the second leading cause for use of curative health services (PIOJ, 2008), while diabetics have the highest bed occupancy rate. The average length of stay for a diabetic is 8.3 days compared to 6.3 for all conditions (PAHO, 2007).

### *Sexually Transmitted Infections (STI)*

Jamaica's primary STI is HIV/AIDS. Jamaica presently has an adult HIV/AIDS prevalence of 1.5% or approximately 27, 000 people and is considered a high prevalence country with aspects of a concentrated epidemic (UNAIDS, 2008). HIV prevalence within the adult population seems to have stabilized and has shown no significant change over the last decade (MOH, 2007), with a general decrease in the number of AIDS-related deaths. Jamaica's HIV programmes are wholly funded by the GFATM (MOH, 2008).

## 5 Research Findings

Jamaica's health care sector is traditionally government funded and operated and like many other countries, health care needs are supplemented by several non-governmental organizations which are maintained mainly by private sector funding (PAHO, 2007).

**Table 3 - Health Financing Indicators: 2000-2007**

Indicator	2000	2001	2002	2003	2004	2005	2006	2007
Total Health expenditure ( % GDP)	6.2	5.7	5.6	5.2	5.5	4.5	5.1	4.7
Per capita total health expenditure (current \$US)	234	223	222	217	236	210	240	224
Public expenditure on health as a % of total expenditure on health	52.6	43.4	57.4	50.6	56.7	48.8	53.1	50.3
Out- of- pocket expenditure (% private expenditure)	65	69.3	61.8	64.7	63.6	63.6	63.7	71

Source: WHO Statistical Information System, World Development Indicators

Table 3 shows that expenditures to health have historically been volatile, fluctuating with each budget year. There is also a decreasing trend in allocation between 2000-2007. Table 3 also shows the magnitude of private expenditure on health. Out-of-pocket expenditure is consistently high for the period highlighted.

## 5.1 *Revenue Collection*

The function of revenue collection deals with how financial contributions to the health system are collected from different sources (WHO, 2000). Jamaica's health financing system uses a system of general and earmarked taxes, prepaid premiums and out of pocket expenses to finance the range of health services.

### *General Taxes*

Jamaica has a primarily tax-funded system with general taxation providing 90% of the MOH budget (PIOJ, 2008). These taxes may include: property and asset taxes, the general consumption tax<sup>1</sup> (GCT) and income tax on statutory income. These sources contribute to the Ministry of Health's recurrent budget, which has remained at \$JMD 30 billion for the past two years and comprises majority spending on health.

### *Earmarked Taxes*

Earmarked taxes for health support the National Health Fund and the CHASE Fund.

In 2003, the GoJ established the National Health Fund (NHF) as an additional mechanism to fund healthcare. Under the *National Health Fund Act*, the NHF was established as an independent statutory organization, whose operations are the responsibility of a Board appointed by the MOH (NHF, 2004). The NHF currently covers 15 chronic illnesses which have been determined to be the greatest contributors to the burden on the healthcare system (White, 2009).

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<sup>1</sup> The General Consumption Tax (GCT) is a Value Added Tax on consumption and is added to the price of goods and services.

The NHF income is derived from a mix of earmarked, consumption, and payroll taxes. There are three distinct sources

- 20% special consumption tax (SCT) on importation of tobacco related products
- 1% payroll deduction on annual earnings, collected on the same basis as NIS<sup>2</sup>.
- 5% of the Special Consumption Tax which is imposed on tobacco, petrol, alcohol, and motor vehicles. (NHF, 2008)

For the year April 2008 to March 2009, approximately 31% of the NHF's tax revenues were derived from the tobacco tax, 44% from payroll tax, and 26% from the 5% component of the special consumption tax, with a total annum yield of \$ JMD 3.1 billion (NHF, 2009). In the 2009 Budget presentation, the Government indicated its intention to increase the SCT on cigarettes, 20% of this amount was to be remitted to the NHF effective May, 2009 (MOF, 2009). As of April, 2009, there was also an increase in the SCT on petrol of which 5% was remitted to the NHF (NHF, 2009).

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<sup>2</sup> The National Insurance Scheme (NIS) is a compulsory contributory funded social security scheme, which offers financial protection to the worker and his/her family against loss of income arising from injury on job, incapacity, retirement, and death of the insured.



The Culture, Health, Arts, Sports and Education Fund (CHASE) is a governmental organization that began its operations in 2002. It receives, distributes, administers and manages monetary contributions from the gaming industry, which is required under licence, to contribute a percentage of earnings to support national development (CHASE, 2009a).

In 2009, CHASE's contribution from the gaming industry increased by 10% from the previous year, 20% of this was approved for health (40% - Sports, 25% - Education, 15% - Arts and Culture) (CHASE, 2009b).

**Table 4- CHASE Fund income and health expenditure, 2009**

	<i>\$ JMD</i>
Total contributions from gaming industry	967,807,000
Total approved for health	256,092,000
Total disbursed for health	119,688,000

Source: CHASE 2009 Annual Report and Accounts

CHASE supplements its income through investments which amounted to approximately \$ JMD 175,763,000 in 2009 (CHASE, 2009b). Administrative costs are actually met by investment income and totaled \$ JMD 69.4 M in 2009, a 16% increase from the previous year (CHASE, 2009b).

### *Donor Funding*

Jamaica receives very little donor funding in general because of its middle income status. As demonstrated in Table 1, ODA has consistently been below 1% of GNI. The largest multilateral grant cooperation in 2008 was through the GFATM Round 7 HIV proposal (PIOJ, 2008). Jamaica has been a GFATM grant recipient since 2004. To date, two successful applications have been submitted for Rounds 3 and 7 HIV/AIDS component. Jamaica's second Global Fund Grant for Round 7 approved in 2008, totals approximately US\$44.2 million (JMD \$3.2 B) (MOH, 2008). This is approximately 10% of the MOH total estimated budget for 2009 (JMD \$29B), and is currently the only support to the National HIV/AIDS Strategic Plan (UNICEF, 2008). Nonetheless, the NSP is still grossly underfunded following funding cuts by the US Government and the World Bank (MOH, 2008). Grants from the GFATM are managed by the National HIV/STI Programme and flow mainly through the public sector (MOH, 2008).

### *Private Expenditure*

Table 3 shows that private expenditure on health contributes significantly to health financing, approximately 50% between 2000-2007. This is primarily out-of-pocket spending at the point of service (JHLS, 2008). The 2007 JSLC reported that only 18.9% of Jamaicans 15-74 years old had private health insurance, mainly as employee benefits rather than individual purchase (JHLS, 2008).

### ***5.1.1 Is revenue collection sustainable and sufficient?***

The main objectives of revenue collection are sufficient and sustainable resource generation (Carrin and James, 2004).

A primarily tax-based health system tends to offer a more sustainable revenue source as revenue is not based on utilization (Gottret and Schieber, 2006). However, such a system tends to prioritize disbursements based on what the government considers urgent each budget year (Gottret et al., 2008) and, as is the case with Jamaica, health care tends to compete with other critical issues such as the national debt burden, possibly leading to the noticeable fluctuations in health spending over the past years (see Table 3).

The sustainability of revenue is also dependent on the efficiency of the tax collection system. If we take a look at the tax regime of the countries which have a stronger public health care sector than Jamaica, it is clear that they also have a higher rate of personal income tax payments than Jamaica. In Canada the tax rate is 48%, the UK approximately 50% and the US some 35%, while in Jamaica it is 25% (White, 2009). It is also estimated that over 200,000 Jamaicans who should be paying income taxes are not doing so (MOF, 2009), further jeopardizing collection.

To improve its revenue collection, the GoJ implemented a tax amnesty where prior years non-compliance would not be queried once registration occurred by October 2009. It is projected that tax revenue should contribute 86% of the Government's budget in 2009/10 following successful implementation of the amnesty (MOF, 2009). However, the income tax threshold was lowered effective July, 2008 (MOF, 2009), therefore, fewer people were obligated for the 2009 budget year. This is further compounded by the Government's recent decision to decrease the national budget by 20% in keeping with the spending restrictions imposed by the IMF (MOF, 2009).

The NHF model has in place sources that are relatively stable, can generate sufficient revenue, and has the potential to grow over time. For example, according to Walbeek, 2005, the demand for cigarettes is price inelastic. He found that an increase in the cigarette tax of 57% of the retail price would only decrease consumption by 6% (Walbeek, 2005). So increased taxation on cigarettes and the resultant price increases results in a less than proportionate decrease in consumption. This also means it may be possible to further increase the SCT on tobacco products. The NHF gained majority of its income (44%) from payroll taxes from the National Insurance Scheme which is its only mandatory contribution. By identifying and utilizing multiple, dedicated and sustainable sources of taxation-based financing, the NHF intervention has resulted in an additional spending of \$ JMD 10B on healthcare over the past five years (White, 2009).

The volatility normally associated with external aid is an impending issue for Jamaica. The National HIV/AIDS Programme is entirely funded by the GFATM and currently receives no Government allocation (MOH, 2008). In 2010, Jamaica became ineligible to receive grants from the GFATM following the World Bank's reclassification to upper middle income<sup>3</sup>. It has, therefore, become necessary for the Government to determine alternate means of funding the National HIV/AIDS Program to sustain the goals already achieved, but the contraction of Jamaica's economy means domestic sources may not be readily available or even offered.

*The Taskforce on Innovative International Financing for Health Systems* is currently supporting a financing mechanism that provides additional funds to health systems through debt relief known as Debt 2 Health (IHP+, 2009). This is a recent initiative facilitated by the Global Fund where creditors relinquish repayment of a portion of loans on the condition that countries, in return, invest an agreed amount in health. The investment is made through the Global Fund's usual systems and principles (IHP+, 2009).

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<sup>3</sup> MOH Public Relations Unit

Although a GFATM recipient, Jamaica has not utilized this added amenity. Criteria for eligibility are: bilateral official claims that have been subjected to Paris Club<sup>4</sup> agreements and countries which received debt rescheduling under the Houston terms<sup>5</sup> (GFATM, 2009). Jamaica has had a signed agreement with the Paris Club creditors since 1984 and has benefited from the Houston terms (Paris Club, 2009) and is therefore qualified to access this initiative.

The volatility of expenditure to health is evident when compared with other middle income countries.

**Table 5-Comparative health financing indicators for other middle income countries, 2007**

<b>Upper Middle Income (LAC)</b>	<b>GDP per capita (current \$US)</b>	<b>Total health expenditure (%GDP)</b>	<b>Per capita total health expenditure (current \$US)</b>	<b>Per capita THE (USD, PPP)</b>
St. Vincent and the Grenadines	5,480	5.4	272	474
Dominica Republic	4,576	5.4	224	411
Colombia	5,416	6.1	284	516
Jamaica	4,802	4.7	224	357

Source: World Development Indicators, 2007

Table 5 shows that Jamaica's health spending is lower than other middle income economies and there is a declining tendency over the past ten years (Table 3). The National Development Plan recognizes that one of the chief impediments to accessing health care is a lack of adequate financing (PIOJ, 2009). So the Government is conscious that current revenue is insufficient.

<sup>4</sup> The Paris Club is an informal group of official creditors whose role is to find coordinated and sustainable solutions to the payment difficulties experienced by debtor countries (Paris Club, 2009)

<sup>5</sup> The Houston terms are special conditions implemented by the Paris Club that take into consideration: low level of income, high indebtedness and stock of official bilateral debt (Paris Club, 2009)

## ***5.2 Risk Pooling***

Risk pooling deals with how revenue collected are pooled so that the risk of having to pay for health care is not borne by each contributor individually (WHO,2000). The GoJ has implemented pooling policies through various institutional arrangements.

### *General Taxes funding Universal Access*

Jamaica's health services have always been provided at minimal cost to the general population (PIOJ, 2008), nonetheless in April 2008, following the outcome of *The 2007 Jamaica Survey of Living Conditions (JSLC)*,) the GoJ abolished user fees at all public health care facilities. According to the *2007 JSLC*, almost 34% of persons who reported an illness in 2006 did not seek care because of the cost of health services. Each year, 100 million people are impoverished as a result of health spending (WHO, 2007), so there is a global consensus that removing user fees is an essential step towards ensuring universal access to healthcare (McPake et al., 2008). To this end, several developing countries such as South Africa, Uganda and Zambia have opted to abolish user fees as a risk protection mechanism for their population (Gilson, 2005, MCPake B. et al., 2008). Data also shows that more than 65% of the poorest quintile seeks care at public health facilities (JSLC, 2007).

It has been argued that the GoJ did not adequately prepare to offer universal access (Jamaica Gleaner, 2009a). During 2002/2003, user fees accounted for 17.8% of the RHAs recurrent budget and amounted to only 0.39% of the national health budget, so these fees did not in any significant way sustain the delivery of health in the country (Jamaica Gleaner, 2009a), but did complement the RHA budget. Abolition was expected to cost JMD \$3.9B (USD\$44 M) of which approximately 52% was to be contributed by the Government, with the remainder generated from casino licenses (PIOJ, 2008). However, according to the MOH, the health budget was increased to less than half the amount required to sustain the new Policy (Jamaica Gleaner, 2009b).

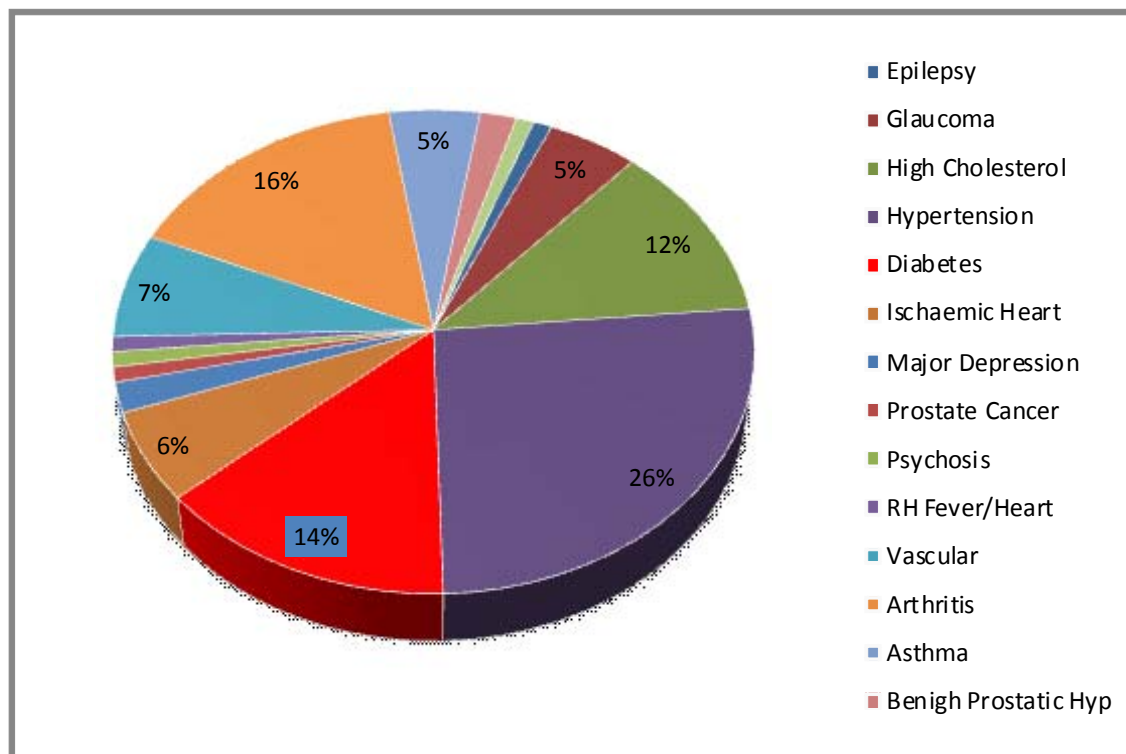
In August 2009, The GoJ also introduced a new initiative to increase access to medication for the entire population. This initiative saw the introduction of a Government Health Card that allows free access to drugs listed on the Vital, Essential and Necessary (VEN) drug list (NHF, 2009). This is financed through the MOH budget and directly managed by the NHF. The GoJ Health Card can only be used to fill prescriptions generated at public hospitals or health centres and participating private sector pharmacies, utilizing a system similar to the NHF but to a greater risk pool (NHF, 2009).

#### *Earmarked Taxes to the National Health Fund*

WHO estimates that of the 58 million deaths from all causes in 2005, chronic diseases accounted for over 60% (35 million), double the number of deaths from all infectious diseases, maternal/perinatal conditions and nutritional deficiencies combined (WHO, 2008). Similarly, CNCD are a significant part of Jamaica's epidemiological burden and are a primary contributor to years of life lost (see figure 4). The National Health Fund (NHF) offers risk protection from the expenditures associated with management of chronic diseases and is accessible by the entire population providing one is afflicted with one of the 15 diseases covered (NHF, 2004). The NHF policy is to provide universal coverage for all residents regardless of age, income status, medical history, or gender, and comprehensive benefits for each condition covered (White, 2009).

The NHF currently provides 3 categories of benefits. These are *Individual* and *Institutional* benefits and *Public Information*. Persons seeking to access NHF individual benefits must first be certified by a registered private or public doctor, with one or more of the specified fifteen medical conditions and then register with the NHF, after which they are issued with an NHF Card (NHF, 2004). Through the individual benefit package, persons over 60 years of age are given a Jamaica Drug for the Elderly Programme (JADEP) Card instead of an NHF Card (NHF, 2004). Both Cards must be presented when seeking to access benefits.

**Figure 5-NHF enrolment by disease, 2009**



Source: NHF 2009 Annual Report

To date, the prevalence of the fifteen diseases covered by the NHF is projected to be in the order of 750,000 Jamaican residents (NHF, 2008). As of 2009, the number of persons enrolled for the NHF card represented a 16% increase over 2008 (404,615 persons) (NHF, 2009b). Hypertension remains the condition with the highest enrolment with over a quarter of the total number of cases (NHF, 2009a). Approximately half (49%) of the persons enrolled in the NHF and JADEP fall in the 60-74 age group (NHF, 2009a) and there is an average of 2.62 cases per individual (NHF, 2009a).



### *Private Health Insurance*

There are two providers of prepaid private health insurance – Guardian Life and Sagicor Life Jamaica, with Sagicor controlling approximately 75% of the market (JSLC, 2009). Private health insurance is typically purchased by employers for their employees and dependents and is non risk-related offering a basic package, which employers select (McKenzie, 2009). A random survey shows the ratio of payment contributions varying between 10 and 30% for individuals, and 70 to 90% for employers (IAJ, 2009). The approximate cost of health insurance services for persons employed in the government service and private companies range from:

- Some \$ JMD 780 for government workers
- Up to \$ JMD 3,000 for individuals in private companies, per month (JSLC, 2009)

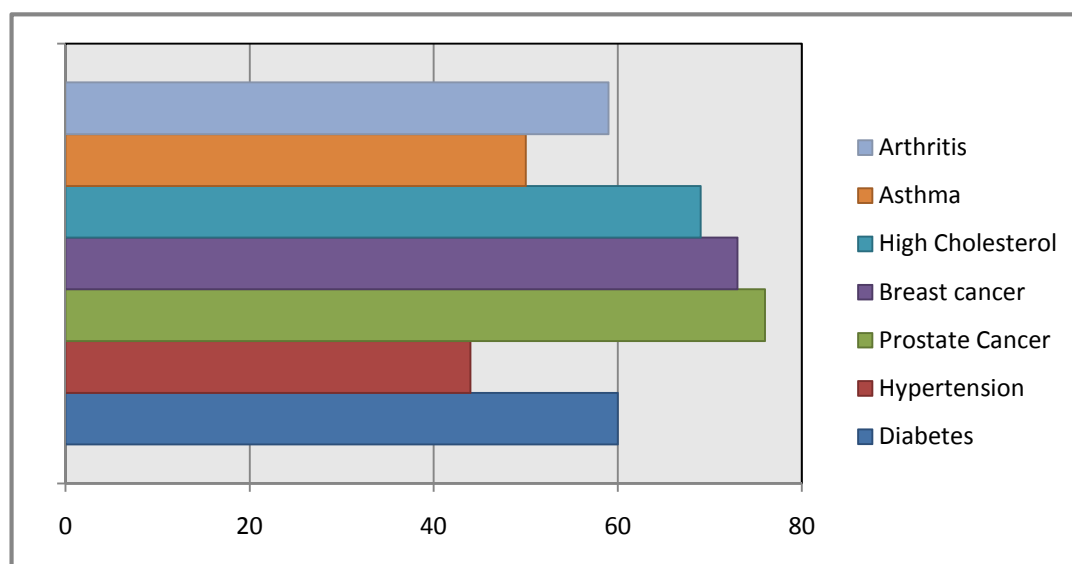
Private insurance tends to exclude the unemployed and informal workers (JSLC, 2008).

### 5.2.1 Are health services financially accessible?

The main objective of risk pooling is financial accessibility to all health services (Carrin and James, 2004). Jamaica's tax based health financing system offers greater financial protection because access to the general health system is not risk based, thereby achieving greater equity for the population. Universal access offers the entire population access to the same benefits. Jamaica has a large informal sector and senior population; the benefits are extended beyond the working class, thereby expanding the risk pool serviced by the health system.

The NHF pays provider pharmacies a percentage of the cost of drugs and the beneficiary is required to pay the difference or the co-payment (NHF, 2008). It is a proportional financing system, i.e. co-payments are universal, irrespective of income (Barrett, 2004). In November 2005, when the drug subsidies were last reviewed and adjusted by the NHF Board, the average subsidy on prescriptions was 57% of the price of the items (NHF, 2009a).

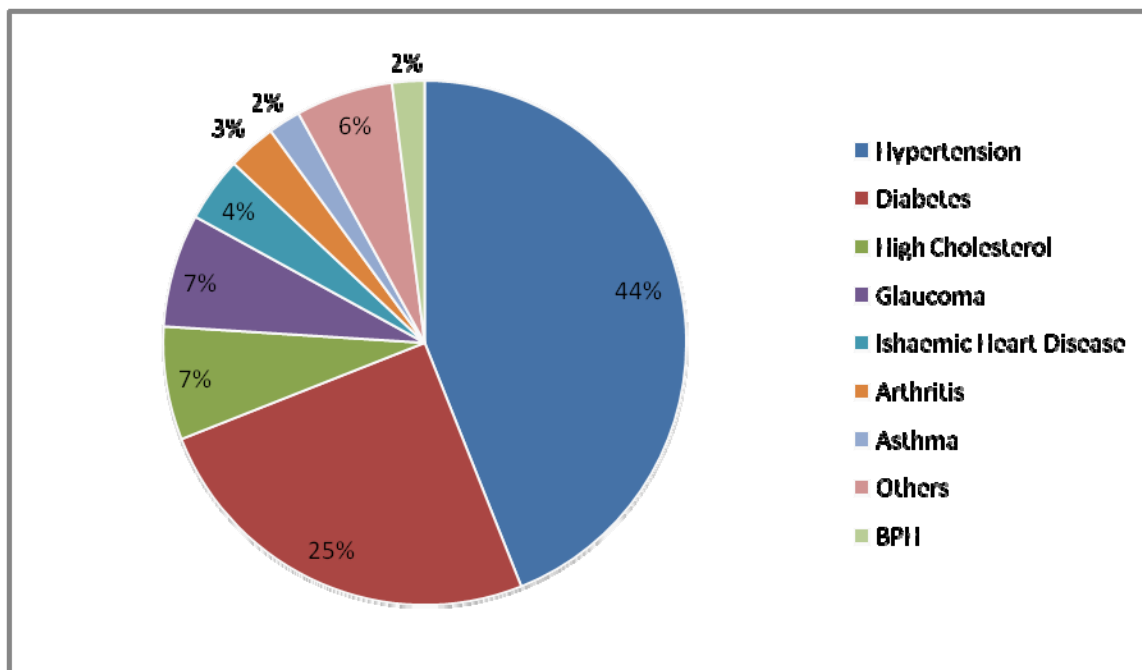
**Figure 6-NHF Card percentage subsidy, 2008**



Source: NHF 2009 Annual Report

Because the NHF has managed to maintain relatively low cost on drugs, this has contributed to an increase in the overall number of claims satisfied during 2009. Health costs were subsidized for more than 300,000 Jamaicans, whose prescriptions valued some \$JMD 3 billion, of which the NHF paid \$JMD 1.7 billion in subsidies (NHF, 2009b).

**Figure 7-NHF Card claims, 2009**



Source: NHF 2009 Annual Report

Prescriptions filled with the JADEP Card also increased by 16% over the previous year (NHF, 2009a). JADEP beneficiaries pay participating pharmacists a flat rate of \$JMD 40 for each month's supply of a drug dispensed (NHF, 2009).

The population also has the option of voluntary private insurance which can be used to cover services not included in the universal access benefit package, such as elective surgeries. Sagikor Life Jamaica Group paid out \$ JMD 3.6 billion in benefits to policyholders and plan members in 2008 (IAJ, 2008). Overall, payment of health benefits increased by 14% between 2006 and 2009, totaling \$8.8 billion with the majority of claims allocated to drug purchase (McKenzie, 2009).

**Table 6-Sagikor Life health insurance claims paid, 2009**

<i><b>Benefit</b></i>	<i><b>Claims Paid \$ JMD</b></i>	<i><b>% allocation</b></i>
Drugs	\$4.1B	47
Physician/Consultant	\$1.1B	13
Dental/Optical	\$0.9B	10
Diagnostics	\$1.0B	11
In Hospital Services	\$1.7B	19
<i><b>Total</b></i>	<i><b>\$8.8B</b></i>	

Source: 2009 Jamaica Survey of Living Conditions

### **5.3 Resource allocation and Purchasing**

Purchasing refers to how funds collected and pooled are used to purchase effective health services on behalf of the population (WHO, 2000). The MOH is the main entity responsible for allocation and purchasing of health services and provides services mainly through a broad network of public providers.

#### *Government Purchasing*

In Jamaica's decentralized health care system, the Government budget for health is allocated at central level to the MOH and further at regional levels to the RHAs for service delivery (MOH, 2007). Funding allocated to the RHAs is based on the size of the demographic covered (MOH, 2007). In 2002/2003 the total funding allocated was 78.5 % (\$ JMD 8,347,037 M) of MOH budget distributed viz.:

**Table 7-Regional Health Authorities budgetary allocations, 2007**

<b><i>Regional Health Authority</i></b>	<b><i>Budget Allocation</i></b>	<b><i>Population Size/millions</i></b>
South East	40.5%	1.2
North East	12.7%	0.356
Western	19.3%	0.451
Southern	15.9%	0.569
University Hospital of the West Indies	11.6%	Regional teaching medical school

Source: Ministry of Health, 2007, Ministry of Finance Estimates of Expenditure, 2009

The South East Regional Health Authority covers the largest portion of Jamaica's population and as a result receives the largest allocation. The Western Regional Health Authority covers Jamaica's major tourist areas, such as Montego Bay, and the additional budget was allocated based on the need to sustain the disease surveillance capacity within that population. The RHAs are left to determine how to allocate their budgets to the health facilities. Currently, most of the budget goes towards curative care but there is renewed focus on the primary health care system (PIOJ, 2008). The MOH also utilizes contractual arrangements mainly for ancillary services at hospitals (MOH, 2007), this helps to curtail hospital recurrent expenses.

Through the universal access policy, registration fees, hospital admission, surgeries, medications, doctor's examination, diagnostics including laboratory services, ambulance service, physiotherapy and maternal care are now free of cost (MOH, 2007). So the benefit package is quite comprehensive including both ambulatory and curative aspects.

As previously mentioned, the GoJ Health Card allows free access to drugs listed on the VEN drug list (NHF, 2009b). The Government has increased access to drugs and medical sundries by expanding the number of items on the VEN list from 550 to 739 items, providing a broader range of pharmaceutical preparations for persons who use the public health facility (MOH, 2009). Subsequently, drug utilization rates have increased by over 44% from 145,395 prescriptions processed in 2007/08 to 209,728 in 2008/09 (NHF, 2009).

### *Purchasing with Earmarked Funding*

The NHF supports three categories of benefits:

- *Individual Benefits* provide pharmaceuticals and supplies through two programmes:
  - *The NHF Card* provides subsidies for the purchase of medications for 15 chronic illnesses<sup>6</sup>, to all eligible Jamaicans.
  - *The Jamaica Drug for the Elderly Programme (JADEP)* provides subsidies to 10<sup>7</sup> chronic diseases for persons 60 years and older.  
50% of NHF revenue is spent on these benefits (NHF, 2008).
  
- *Institutional Benefits* provides benefits by way of grant financing to private and public sector organizations on a project basis. Two funds operate in this category:
  - *The Health Promotion & Protection Fund* provides financial assistance for projects that support primary health care with emphasis on health promotion and illness prevention. Up to 10% of revenue is spent through this Fund (NHF, 2008).
  
  - *The Health Support Fund* provides financial assistance for projects in the public sector to help improve infrastructure and service delivery facilities. Up to 15% of revenue is spent through this Fund (NHF, 2008).

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<sup>6</sup> The fifteen diseases covered by the NHF are: Arthritis, Asthma, Breast cancer, Prostate cancer, Diabetes, Epilepsy, Enlarged Prostate, Major depression, Psychosis, Glaucoma, High cholesterol, Hypertension, Ischaemic heart disease, Rheumatic heart disease and Vascular disease (NHF, 2008).

<sup>7</sup> The fifteen diseases covered by JADEP are: Arthritis, Asthma, Cardiac Conditions, Diabetes, High Cholesterol, Benign Prostatic Hyperplasia, Psychiatric Conditions, Glaucoma, Hypertension, Vascular Disease (NHF, 2009).

- *Public Information Fund* supports lifestyle seminars to educate the population to better manage and prevent chronic and other diseases. These seminars are integrated into the provision of NHF individual benefits by encouraging and monitoring the involvement of beneficiaries.

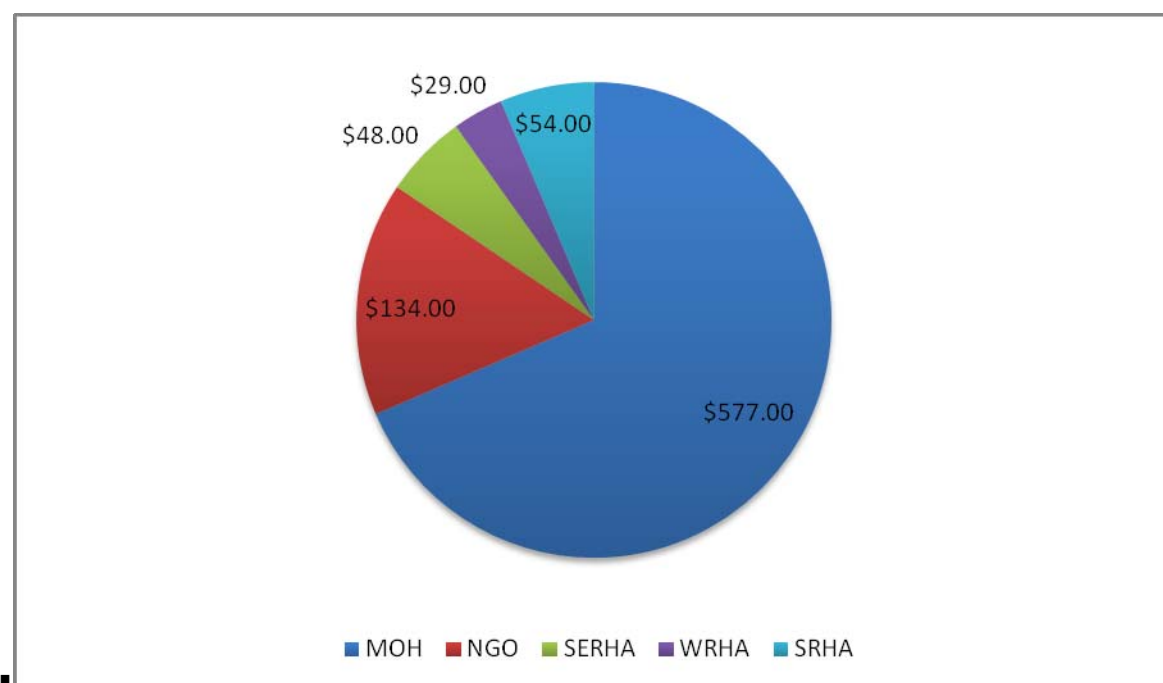
Over 1300 pharmaceutical items and diabetic supplies are listed as NHF Card benefits. 72 drugs for the treatment of 10 chronic illnesses are provided through JADEP (NHF, 2009b). Drugs are available from a mixture of public and private providers who are reimbursed weekly on a managed fee-for service basis (NHF, 2008). Beneficiaries have a wide choice of providers as over 95% of all private pharmacies are NHF providers, and over 80% of all benefits are accessed through these private providers (NHF, 2009a).

According to the 2000 Jamaica Health Lifestyle Survey, one-third of persons classified with diabetes were not being treated (JHLS, 2000). Recognizing the need and that diabetes is a risk factor for several other diseases, the NHF began offering diabetic supplies as part of its individual benefit package in November 2007 (NHF, 2008). In addition to drugs, each beneficiary is also offered two subsidized blood sugar A1c tests annually, which is considered the gold standard for monitoring blood sugar levels. At the end of March 2008, the test was available at 40 providers including doctors' offices, private laboratories and public health facilities (NHF, 2008). Beneficiaries are also afforded a glucometer or insulin pen every two years (NHF, 2009b).



Jamaica's health care needs are supplemented by several non-governmental organizations such as the Jamaica Cancer Society, Heart Foundation of Jamaica, Diabetes Association of Jamaica, Sickle Cell Support Club, and Jamaica AIDS Support, which are maintained mainly by private sector funding. They can, however, access grant funding through the NHF Institutional Benefits.

**Figure 8-NHF Institutional Benefits allocations, 2009**



Source: NHF 2009 Annual Report

In 2009, \$ JMD 842m was approved for institutional benefits, with \$ JMD 529.56m allocated to construction and infrastructure (NHF, 2009). While the MOH received the largest grant amount in total, NGOs had the greatest number of grants approved through the NHF (14) totaling \$ JMD 134 million (NHF, 2009). The GoJ has indicated its intention to embark on a major health infrastructure strengthening programme over the next five-years using the National Health Fund (GFATM, 2007). The GoJ is also pursuing the renewal of primary health care to provide support for the abolition of user fees (ECOSOC, 2009a).

As part of its Health component, CHASE is mandated to implement programmes for the development of healthy lifestyles in Jamaica, to assist and promote with grants or otherwise the development and improvement of health facilities and collaborate with the private sector in the delivery of health care (CHASE, 2009a).

**Table 8 - CHASE Fund disaggregated health expenditure, 2009**

<b>Project</b>	<b>Grant contribution \$JMD</b>
Medical assistance to individuals	\$ 77,656,842
Healthy lifestyle	\$ 34,300,264
Equipping/upgrading health facilities	\$ 104,008,930
Research	\$ 14,922,940
Training	\$ 14,564,972
Health screening	\$ 3,070,250
Support for mentally challenged	\$ 7,567,500
<b>Total Disbursed</b>	<b>\$ 256,091,698</b>

Source: CHASE 2009 Annual Report and Accounts

In 2009, CHASE major expense went to the upgrade of health facilities to purchase equipment, mostly in the public sector. The other major expense went towards medical assistance, primarily for cancer care (CHASE, 2009b).

### *Purchasing with Donor Funds*

Access to essential medicines is a purchasing priority. The GFATM Grant, disbursed through the NHF individual benefit package, has resulted in the individual monthly cost for ARTs going from \$JMD 1,000 to now being free of cost to public sector patients and provided at greatly reduced prices to private patients through the individual benefits package (ECOSOC, 2009b), thereby achieving wider access to treatment, a target set out in the MDGs. ARTs are funded entirely by the GFATM and the NHF is currently the only means of accessing ARTs in the public sector (NHF, 2008).

Although Jamaica has not applied for the HSS component, the Global Fund has indirectly contributed through the HIV/AIDS grants. The National HIV/STI Programme established a national laboratory information system, which links to the Kingston Public Hospital and the Comprehensive Health Centre. The Laboratory facilitates data collection for HIV and STIs, but will also capture data from other diseases and health conditions, improving the surveillance function within the health sector (GFATM, 2007). Nineteen integrated ARV Treatment Sites with basic primary health care services have also been opened (GFATM, 2007).

### 5.3.1 Are resources used optimally in purchasing?

The main objective of purchasing is to use resources optimally (Carrin and James, 2004).

The NHF has devised a system that mitigates for possible abuses and increases its efficiency.

**Table 9-National Health Fund safeguarding measures**

<b>Entity</b>	<b>Likely Abuse</b>	<b>Mitigation</b>
Beneficiary	Falsifying eligibility  Borrowing Cards	Gate keeping through general practitioners. Utilization monitored through NHF Card Universal Coverage
Prescriber	Generating false, unnecessary or excessive prescriptions	Remuneration only received for accepted claims NHF Treatment regimens specify drug, dosage and frequency and monitors utilization Regular Audits
Pharmacy/Provider	Product switching/billing NHF for patented drugs  Doubling billing  Falsifying claims/ billing for services not provided  Incorrect prescriptions	Same rate paid regardless of brand Beneficiary utilization control Beneficiary utilization limits and monitoring. Regular audits Complaint system

Source: Barrett and Lalta (2004).

Table 9 shows how the NHF is able to curtail its expenses while ensuring quality service delivery. The gate keeping system ensures beneficiaries are in fact eligible to receive access to the subsidies offered and by monitoring usage through the NHF card, inappropriate or excess use is lessened.

Government purchasing seems to be focused on the provision of drugs mainly through the NHF and GoJ Health Card. However there is duplication in the benefits offered. For example, the drug *Prednisolone*, which is prescribed for Arthritis, can be found on both the VEN list and the NHF Individual Benefit list in its liquid and tablet form (MOH, 2009 and NHF, 2009b). Efficiency of a system has important financial implications for long-term fiscal sustainability and for governments to find the “fiscal space” in highly constrained budget settings (Gottret and Schieber, 2004).

Another way to promote efficiency is to offer incentives. The NHF weekly reimbursement to its providers serves as an incentive and encourages efficient and rational behavior. The Organization has a total of 400 private pharmacies contracted to provide both NHF and JADEP benefits (NHF, 2008). As a result, private providers currently fill 92% of NHF claims (NHF, 2008). This is strategic on the part of the NHF as most ambulatory care is already provided by the private sector and as demonstrated in Table 9, the NHF already has a system in place to mitigate for abuses, thereby increasing provider performance and promoting efficiency.

The GoJ currently has no incentive- based programs geared toward the public health system. Most doctors employed in the public sector maintain a private practice to supplement income and in doing so they also tend to pull clients away from the public sector (McKenzie, 2009). Health services are also regularly interrupted by industrial strike actions of health professionals disputing the Government's wage allocations. According to the World Bank, salaries in the region are lower than migratory destination countries such as the United States, and Jamaican nurses are among the health professionals in the region who receive the lowest compensation packages (World Bank, 2009b).

Most highly technical expertise and equipment is only available in the public health system (McKenzie, 2009). For example, CT Scan Machines are only found at the islands top three public hospitals; Kingston Public Hospital (KPH), University of the West Indies Hospital and Cornwall Regional Hospital. At KPH alone between 400 - 450 referrals are made for CT scans per month<sup>8</sup>. Because of high usage and infrequent maintenance, the machines tend to malfunction quite often and cost millions to repair. If a procedure is recommended for a public patient and the hospital's machinery is not functioning, then the public hospital is responsible for covering the cost of the procedure at private facilities (McKenzie, 2009). This imposes a financial burden on the Government, which has not developed contracting agreements with the private sector to offer health services to the public and further imposes financial burdens on patients who have to pay the higher prices within the private sector. WHO highlights strategic purchasing as a key factor in the performance of health systems (WHO, 2007).

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<sup>8</sup> Personal communication from Dr. Shane Alexis, President of the Jamaica Medical Doctors Association (JMDA).

#### ***5.4 Impact on the performance of the health system?***

Like many middle income countries, Jamaica has undergone a demographic and epidemiological transition which exacerbated the challenges already being faced by a traditionally strained health financing system. The population is aging and chronic non communicable diseases (CNCDS) have become the leading cause of illness and death (JSLC, 2008). However, a higher standard of health status has been achieved despite the fiscal constraints. In fact, The World Bank has indicated that Jamaica's social and health indicators are comparable with those of developed countries (ECOSOC, 2009a).

**Table 10 -Selected health indicators and progress to the MDGs**

<b>Health Indicators</b>	<b>Jamaica</b>	<b>LAC</b>	<b>Jamaica's Progress</b>
Life Expectancy at birth	72	73	met
Maternal Mortality ratio (MDG 4), per 100,000 live births	400	130	Off track
% Pregnant women receiving prenatal care (at least 4 visits)	87	95	met
Fertility Rate, total (births per woman)	2.4	2.4	met
Infant Mortality Rate (MDG 5), per 1000 live births	47	22	On track
Under 5 mortality (per 1000), 2007	31	26	Off track
Births attended by skilled health staff (% of total), 2005	97	89	met
Population per doctor	2253		Off track
Ratio of nurses to physicians	1.9		Off track

Source: MOH, Jamaica, 2008, World Development Indicators Database, 2009.

Table 6 above shows that Jamaica has already achieved the targeted reduction in absolute poverty, malnutrition, hunger and universal primary enrolment and is on track for combating HIV/AIDS, halting and reversing the incidence of malaria and tuberculosis, access to reproductive health, and provision of safe drinking water and basic sanitation (ECOCOS, 2009b). However, the Country is far behind in child and maternal mortality, mainly due to lack of human and institutional capacities and resources (ECOSOC, 2009a).

In 2007, for every 1000 pregnant women attending public antenatal clinics, at least 10 were HIV infected (MOH, 2007). The NHF individual benefit access to ARTs through the Global Fund has contributed to the prevention of mother-to-child transmission<sup>9</sup> (pMTCT) of HIV. 90% of pregnant women were screened for HIV (GFATM, 2007) and 87% of HIV infected mothers were receiving ARTs or prophylaxis, while more than 90% of infants born to HIV infected women received ARTs for pMTCT (MOH, 2007). It is estimated that currently the transmission of HIV from mother-to-child is less than 10 % compared to 25% in 2002 (MOH, 2008). This also ties into MDG 4 – reducing child mortality. Jamaica’s prevention-of-mother-to-child transmission (PMTCT) programme is a regional best practice having surpassed the 2010 universal access<sup>10</sup> target of 80% coverage (MOH, 2007).

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<sup>9</sup> In 2007, for every one thousand pregnant women attending public antenatal clinics, at least 10 were HIV infected. 73 new paediatric (0-9 yrs old) AIDS cases were reported, which was a 63% decrease from 2006 and 9 paediatric AIDS deaths were reported, a 31% decrease from 2006 (MOH, 2008).

<sup>10</sup> In the Political Declaration on HIV and AIDS adopted in June 2006, countries around the world agreed to revising their national AIDS plans and targets so as to significantly scale up their response to AIDS towards universal access to HIV prevention, treatment, care and support by 2010.



The collection and pooling strategies used by the GoJ offer good financial protection from catastrophic health expenditure. The health financing system is primarily tax based, which offers broader financial protection as contributions are not related to utilization as a result of illness. Also, the entire population now enjoys universal access to the public health services, following abolition of user fees in 2008. No formal studies have been done to assess the impact of universal access, however, the abolition of user fees seems to have led to an increase in utilization of government provided health services.

**Table 11 - Changes in health care utilization of public facilities post abolition of user fees, April - December 2008**

<b>Services</b>	<b>Percentage Increase</b>
Visits	5.7
Admissions	1.4
Pharmacy services	3.2
Items prescribed	20.3
Surgeries performed	4
Outpatient visits	17.6
Visits to health centres	9.4
Curative visits to health centres	22.2

Source: Policy and Planning Unit, the Ministry of Health and Environment, 2009

Table 11 shows a marked increase in items prescribed, outpatient visits and curative care services. The Chief Medical Officer pointed out that 2009 budgetary allocation for the purchase of pharmaceuticals and medical supplies was increased by 6.4 % to offset this increased usage (JIS, 2009).

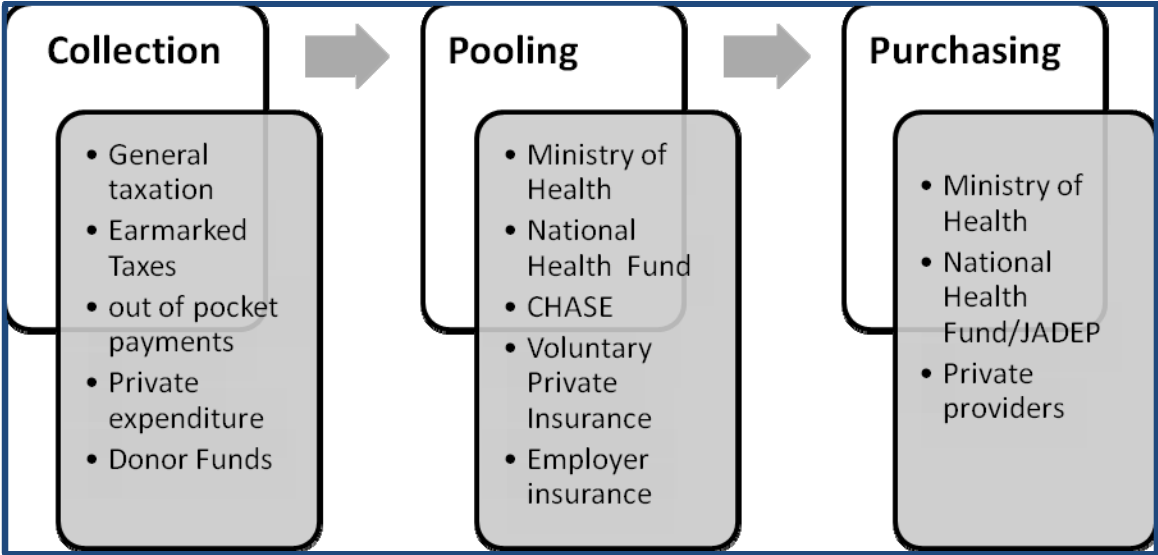
Increased demand for services has also left hospital staff disgruntled, stating drug shortages and inadequate human resources to cope with the increased demand for specific services (Jamaica Gleaner, 2009c). Waiting time has also increased by 2 hours (JIS, 2009) and the MOH has had to extend opening hours at some facilities to ensure patients are seen, this is of course to the dissatisfaction of most staff who now have extended working hours to compensate for the limited available human resources (JIS, 2009).

Universal access also seems to have led to inappropriate use of health facilities. The Ministry estimated that approximately 60% of persons who use hospitals could access care at the health centres (JIS, 2009). Reports from the main tertiary facility, Kingston Public Hospital (KPH), indicated a negative impact on the quality of care. According to Mr. David Dobson, CEO of KPH, *“There is an overcrowding problem. What we have found out since January 2009 is that we have a significant increase in the number of admissions”* (Jamaica Gleaner, 2009b). Mr. Dobson also revealed, *“We did not have space to keep our patients, some were on stretchers. That was untenable to us. That's not our standard of care”* (Jamaica Gleaner, 2009b).

**6 Discussion**

Jamaica’s health financing system carries out the functions of collection, pooling and purchasing through a number of arrangements. The MOH is the main entity responsible for executing all three functions.

**Figure 9 - Summary of Jamaica's health financing arrangements**



Jamaica’s health care is typically financed from a mixture of four sources —taxes, employer-based insurance, private out-of-pocket payments and donor funds to a lesser extent. Taxes are the main source of revenue, this includes earmarked, indirect and payroll taxes. Donor agencies, mainly the Global Fund, contribute through grants for HIV programmes.

Various strategies have been implemented to promote sustainability of revenue collection, mainly by mobilizing resources locally. A Special Consumption Taxes (SCT) placed on tobacco supports the NHF. It is the only resource towards health that has been increased recently and contributes to the sustainability of revenue collection since studies have shown that tobacco consumption is inelastic with increased taxation. Persons who buy private

insurance also contribute to the public health system through their income taxes. The Government is also aiming to improve the efficiency of its tax collection system. All these strategies add to the pool of sustainable funds allocated to health.

Sustainability is, however, affected by numerous factors. The biggest constraint is the macro-economic environment that has historically varied financial resources allocated to health. Being mainly reliant on government revenue means the health financing system has been subjected to changing government priorities and budget adjustments. This is further complicated by a reduced national budget and limited donor aid due to the Country's World Bank reclassification. The large informal labour market also limits collection of general government revenues. Jamaica's health care system is primarily locally financed, which means it is not subjected to the sometimes volatile nature of donor aid, except the National HIV/AIDS Programme. The lack of domestic funds to HIV and related services renders the achieved effects unsustainable in light of the impending termination of the Global Fund grant. The Debt to Health Initiative may serve as an alternate way of using the GFATM to sustain the life of the national HIV programs, while addressing one of Jamaica's biggest developmental barriers, its debt burden. The NHF's largest source of income was through mandatory payroll taxes. This source is, however, dependent on the employed in a country that has a high unemployment rate and large informal sector.

Revenue collection may not be sustainable. There is a lack of funds at the central level and Jamaica's health expenditure is lower than other middle income developing countries. The National Development Plan also highlights financing as a major problem in providing access to health care. However, increased spending does not always translate to improved health outcomes and it would be unrealistic to expect Jamaica to increase health spending considering the current macro-economic climate, meager tax collection system and demographic changes. These conditions restrict the Government's capacity to mobilize additional resources.

Further to this, the HSSP poorly outlines strategies to improve financing to health and so the health financing system is not backed by a policy that aims to mitigate for a lack of resources. Without sufficient and sustainable resources, the current policy environment may be compromised.

Pooling arrangements have improved financial accessibility for the entire population. These arrangements include: universal access following the abolition of user fees at all public health facilities, employer-based insurance, private voluntary insurance. However, domestic funds seem to focus on drug provision through the NHF and the GoJ Health Card.

The abolition of user fees at Jamaica's public facilities expanded financial accessibility, a relevant initiative considering the large informal and unemployed sector. But was this policy necessary considering the cost to access public care was already considered negligible? The NHF subsidies (Table 6) have also contributed to financial accessibility by maintaining the low cost of drugs which has contributed to an increase in enrolment and use of the NHF and JADEP cards. However, co-payments are the same for all income groups and therefore not equitable.

Health insurance is provided mainly through private providers. Jamaica has no mandatory health insurance schemes and private insurance tends to be restricted to the formally employed. Jamaica's low employment rate means a significant percentage of the population is not covered by private health insurance which is useful to access services that the universal access policy is unable to support, such as elective procedures. Private Insurers are still making substantial payments (47%) for drugs, which means the NHF and GoJ Health Card are underutilized and the population may be unaware of the facilities. Patients who currently have private health insurance are still eligible for benefits from the NHF, providing they suffer from one of the 15 diseases covered. So using the NHF in combination with private health insurance further decreases the financial burden associated with access to medication but wider health services are not applicable.

While, the Government has made steps towards financial risk protection, there seems to be a duplication of effort. The Government's new Health Card offers drugs from the VEN List, some which are already being financed by the NHF individual benefit package. Indeed, the NHF was conceptualized to finance the treatment of chronic diseases, therefore, the Government is taking on another costly responsibility through the new Health Card. There is also a risk of further underutilizing the NHF as the Government's Health Card may compete with the NHF card, which is currently only totaling 28% of the projected enrolment.

The ability to procure donor funds has been a challenge and has become an immediate concern. The Country's supply of ARTs is provided free in the public sector. This service is in jeopardy pending future ineligibility to apply for the GFATM, which is currently the only financial source for ART provision. Domestic funds have not been allocated to assist in the response to HIV/AIDS, one of Jamaica's main health problems.

The National Health Fund has been successfully utilizing strategic management methods to encourage optimal resource use in purchasing. It is not reliant on the Government for sustained funding because of its multiple revenue sources. The NHF has also designed a system that mitigates for possible abuses of the system while encouraging its providers to improve their service delivery. Financial incentives are granted to providers, gate keeping is employed through general practitioners, profiles of providers are maintained, and utilization is tracked through usage of the NHF cards. The NHF system has succeeded in collecting data from private providers as well as monitoring the quality of service they provide, something the Government has not been successful in accomplishing.

The NHF also differs significantly from the other conventional pharmaceutical benefits programs in terms of its inclusion of institutional benefits which account for about 30 % of its resources. The Government has not been able to transfer the NHF management strategies and lessons learned to benefit the wider health system. The NHF Institutional benefits and the CHASE Fund's Health component both target the improvement of primary health facilities. Both are well-funded government organizations but act independently. Within this declining

economic environment, integrating Jamaica’s health financing services may increase efficiency of service delivery and may also curtail costs to the Government.

Jamaica’s health system lacks incentives to encourage staff to remain in country. Political arrangements in the Caribbean have changed. The development of the Caribbean Single Market and Economy (CSME) brings with it new challenges and opportunities. This cooperation among countries allows for free movement of Caribbean nationals, with the aim of allowing the Region to become more competitive within a changing global context. Increased regional (and global) mobility has offers competition to Jamaica’s declining healthcare professionals who prefer to migrate in search of more acceptable working conditions (ECOSOC, 2009b).

**Table 12-SWOT Analysis of Jamaica's Health financing system**

<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
Primarily funded from the national budget	Limited human resources to manage increased utilization	Donor funds available to address both debt burden and health resources	Unstable economic environment
Special taxes implemented to increase revenue collection	Voluntary private insurance used mainly by upper income groups and formal sectors	NHF offers a good local example that can be replicated to manage facility use and improving service delivery	Historically fluctuating allocations to health
Universal access to public health	Vague, un-costed health sector strategic plan	NHF could be expanded gradually to cover a much wider benefit package, in this way moving to a full blown Social health Insurance	Political arrangements that allow regional free movement of labour
Comprehensive benefit package through public health system	Duplication of efforts that wastes resources		

The health financing system has had some impact on the performance of the health system. There is good allocative efficiency relevant to the main health problems, which has contributed to the overall improved health status of the general population. Domestic resources through the NHF are prioritized for the management of CNCDs, which have been shown to constitute a major burden on the health system. Donor funding through the Global Fund also focuses on another major health problem, HIV/AIDS, and has improved financial access to antiretrovirals and laboratory services.

Universal access provides both curative and preventative procedures free to the public. Universal access also means surgeries are provided free to the public. Prior to the abolition of user fees, violent injuries cost the MOH a significant portion of the health budget. Considering the continued high incidence of violent crimes and high cost of surgical procedures, offering free surgeries to the public is obviously another costly venture which the GoJ has not mitigated for. It stands to reason that universal access must be accompanied by complimentary policies that effectively manage for utilization, while being cost effective.

The parallel existence of public and private health services permits the rich to voluntarily switch to the private health services, whilst the poor rely on the public health services, where they may be subjected to longer waiting times etc. Collaboration between both has, however, not been successfully promoted by the Government.

Despite the advances made to improve financial accessibility, there seems to have been little reference to the capacity of the health system to cope. Data showed a significant lack of human resources, which was not addressed prior to the abolition of user fees and has still not been addressed subsequent to an increase in utilization, directly affecting delivery of health services. Waiting times and staff working hours have increased, while drug supplies decrease.



## **7 Conclusion and Main Recommendations**

The Paper showed that the Ministry of Health is the main entity through which resources for health are collected, pooled and allocated for the population. The health financing system has access to sustainable resources which are mainly local taxes. Risk pooling arrangements provide all households universal access to public health services and major drug subsidies, although there remains an important part of out of pocket expenditures, either for co-payments for drugs or people preferring to use private health services (OOP is approximately 35% of THE). Resources are not used optimally to purchase health services, leading to duplication of benefits.

The health financing objectives have also positively and negatively impacted on the performance of health system goals. There is priority setting relevant to the epidemiological burden, contributing to the improved health status of the population. By prioritizing, the sickest in the population are protected through various financing initiatives and arrangements such as the National Health Fund and the Global Fund. The GoJ has made efforts to ensure equitable access, through the regional allocations for public health services, for which user fees have been abolished. The Government has also created additional mechanisms (NHF and CHASE) that cover specific disease programmes; however, NHF co-payments are required for the entitlements (mainly drug purchases) and co-payments are flat payments, thus regressive in nature. Increased access has also resulted on increased waiting times and longer staff working hours.

Overall, resources have clearly been allocated to increase financial access for persons in need (financial and epidemiological) and the Government has made attempts towards pro-poor policies.

Despite advances there is much room for improvement, such as:

1. Stimulate the formation of a social health insurance scheme by pooling the large out-of-pocket expenditure that goes to private care and extending the revenue collected to low income groups.
2. Generate more sustainable revenue by borrowing domestically. For example, the Universal Access Fund is a government financing strategy, which is financed by taxes on incoming international calls to Jamaica. In 2006, the revenue to be earned from the charges was projected at JMD \$1B and all funds were allocated to the communication and education sector. This is a predictable and sustainable domestic source, which could be borrowed to provide additional resources for the health system.
3. Use resources more optimally by being more specific as to the drugs offered under the new Government Health Card, in order to not replicate NHF individual benefits and cut back on costs associated with drug procurement and provision. Pooling the respective resources of the NHF institutional benefits and the CHASE Fund and using one organization for the administrative distribution of these resources will also increase efficiency and decrease overhead costs to the Government. The NHF has already designed a system to mitigate for possible abuses and increase its efficiency. This makes it a notable entity through which to implement restructuring of health facilities.
4. I recommend Jamaica apply for the *Debt 2 Health Initiative*. The Country meets the eligibility criteria and the Initiative provides incentives for both creditors and beneficiaries, such as alignment with the *Paris Declaration on Aid Effectiveness*, debt relief, increased domestic funding to health which increases predictability of financing. This is of course a three way agreement between creditors, the grant recipient and the Global Fund and therefore dependent on creditors willingness to participate. In the past,

Jamaica has been a part of numerous debt restructuring programs, therefore, it seems the international community is sensitive to the macroeconomic problems.

5. Implementing a gate keeping system would also improve performance. The direct access to hospital care allowed to Jamaicans through universal access is clearly being misused as indicated by the large percentage (60%) that could use primary care units instead. I recommend implementing a gate keeping system as a control mechanism to promote more rational use of health facilities. Gate keeping is a management strategy which gives general practitioners (GP) a central role in healthcare provision. As gatekeepers, GPs become the first service providers customers make contact with and who decide the level of service they require. As discussed, most ambulatory care is already provided by the GPs in the private sector. I recommend the MOH capitalize on this by utilizing general practitioners for hospital referrals. This control on hospital use would reduce costs at secondary and tertiary levels as it restricts the frivolous use of these facilities.
  
6. Reinstating user fees at secondary and tertiary care to curtail usage at these facilities and encourage use of primary services. Primary care services are already geographically accessible to the population. Because of the focus on offering preventative services, PHC also tends to be less costly and also more easily able to provide personalized and continuous care. The user fees would also provide additional resources to the secondary and tertiary facilities. The Government could also propose a preferential fee, so that persons who are not referred at the first level pay higher fees than those who are. This links to the gate keeping function.

7. The limited number of health care professionals has significantly affected the performance of the health system. I recommend contracting private providers to supplement for decreased health staff component which would also allow monitoring of this group. For example: The Heart Institute of the Caribbean (HIC) has been recognized regionally for its work in the management of cardiovascular diseases, the leading cause of hospitalization, disability and death locally and which also account for a major portion of health spending. The HIC has two locations across the island and has become a regional leader in the diagnosis and treatment of cardiac diseases. Its presence in Jamaica fulfills several objectives such as a readily available state of the art diagnostic and treatment center for heart diseases and opportunity for advanced training of local personnel in the diagnosis and management of cardiovascular diseases. Contracting allows ownership to remain private and curbs cost for the government. I also recommend The Government consider contracting private doctors or purchasing health services from these providers for the Regional Health Authorities, in order to fill the human resource gap.
  
8. The low wage packages and lack of incentives has compromised the delivery of health services. I recommend creating a link between public health workers' remuneration packages and performance, For example, provide nonmonetary rewards such as opportunities for learning and career progression, subsidized housing and education for dependents.

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