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# Non-Communicable Diseases in Jamaica: Moving from Prescription to Prevention

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by Shiyao Chao, Carmen Carpio and Willy de Geyndt

Non communicable diseases (NCDs) are the leading cause of death throughout the Americas, but the epidemic has hit the Caribbean region particularly hard. NCDs represent not only the major causes of death (heart disease, cancer, stroke, and diabetes) but are responsible for the greatest share of the burden of disease in the Caribbean region (65 percent)<sup>2</sup>. Jamaica is not an exception. NCDs have spread progressively among the entire population in the last decade and are the leading cause of mortality and morbidity, accounting for the largest number of hospital discharges.

Reducing the burden of NCDs in Jamaica is a national policy. The Government of Jamaica has recognized the importance of preventing and controlling NCDs and created the National Health Fund (NHF) to reduce the cost of treating them by providing free or subsidized medicines to patients with NCD conditions and finance some prevention Programs. The World Bank undertook a study to learn from Jamaica's experience in tackling major NCDs and related risk factors, provide policy options for Jamaica to improve the NCD Program, and share with other Caribbean countries lessons learned from this experience. The study answered three questions: (i) whether Jamaica's NHF and its drug subsidy Program have reduced out of pocket spending on NCD treatment; (ii) whether access to treatment of NCDs has improved in the country; and (iii) what is the economic burden on patients with NCDs and their families.

## Main Findings

### *Treatment for NCDs is more affordable*

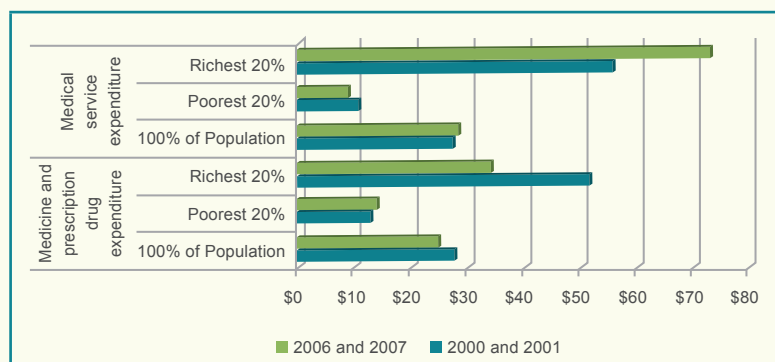
The NHF Drug Subsidy Program has achieved its primary goal of making NCD drugs more affordable. The results from the analysis of the Household Surveys before and after the establishment of the NHF indicate that patients with NCDs under the Fund paid less out of pocket for their pharmaceuticals than patients with NCDs without coverage. Individuals suffering from NCDs reduced



<sup>1</sup> Based on the forthcoming study, "Non-Communicable Diseases in Jamaica: Moving from Prescription to Prevention", June 2011, Report No. 62065-JM  
<sup>2</sup> PAHO/CARICOM 2006

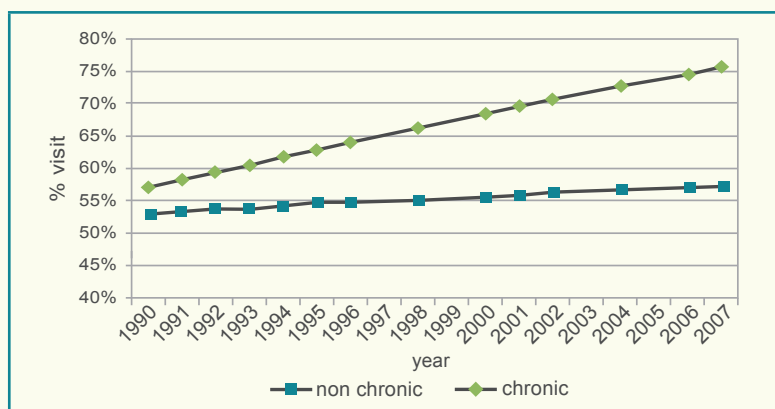
their medicine and prescription drug expenditure on average by roughly 10 percent in 2006 and 2007 after the NHF drug purchase subsidy Program was introduced, relative to 2000 and 2001. Figure 1 summarizes the healthcare expenditure pattern for the poorest 20 percent population group with NCDs (quintile 1) and the richest population group suffering from these same diseases (quintile 5), respectively, and it shows that the distribution of NHF benefits is unequal among socioeconomic groups. The economically better off population group appears to benefit more from the Government subsidy of pharmaceuticals and is more likely to enroll in the NHF Program. The richest group spent seven times more than the poorest group, suggesting the need for the Program to more effectively target the poor and extend their enrollment.

**Figure 1. Individual Annual Medical Expenditures before and after the NHF Program among population with NCDs (in 2008 constant JM\$, thousands)**



Source: Study estimates based on JSLC 2000-2007  
 Note: Expenditures data combined and annualized for period before NHF (2000 and 2001) and after NHF (2006 and 2007) to expand study sample size.

**Figure 2. Adjusted Health Service Visits for individuals with and without NCDs (%)**



Source: Estimates based on JSLC 1990-2007  
 Note: Adjusted for major household socioeconomic characteristics.

### Utilization of healthcare has increased

People with NCDs in general increased their utilization of health services. Health service visits among patients with NCDs showed an upward trend as opposed to a fairly flat curve among non-patients with NCDs. Patients with NCDs on average had more healthcare visits than other patients, and this gap increased six times in a period of 17 years, from 3.8 percent in 1990 to 18 percent in 2007 (Figure 2). Although the implementation of the NHF Program may not explain this profound change in care seeking behavior, patients with NCDs are obviously utilizing healthcare services more.

The population with NCDs visiting health services increased by approximately 5-6 percent, from 70 percent in 2001 to 76 percent in 2006, after the establishment of the Program (Table 1). The average number of visits per patient slightly decreased from 1.6 to 1.3 in the same period. However, the proportion of visits to public facilities, including public health centers and hospitals, as well as pharmaceutical drug purchases, did not significantly change.

**Table 1. Individual Health Service Utilization before and after the NHF Program among population with NCDs**

	2000 and 2001			2006 and 2007		
	Population with NCDs	Poorest 20%	Richest 20%	Population with NCDs	Poorest 20%	Richest 20%
Health Service Visits (%)	70	71	69	76	73	77
Number of Visits	1.6	1.7	1.5	1.3	1.3	1.2
Public Facility Visits (%)	45	69	31	44	64	28
Medication Purchases (%)	79	66	85	78	72	81

Source: Estimates based on JSLC 2000, 2001, 2006 and 2007

## *NCDs impose heavy burden on patients and their families*

NCDs not only adversely impact quality of life through morbidity or mortality, but also impose an economic burden on households and on society as a whole. The direct economic burden at individual level is the sum of out of pocket spending by patients with NCDs on outpatient and inpatient care, and medication. The indirect economic burden of NCDs comes from loss of income due to work absenteeism associated with illness. The study estimated the direct and indirect economic burden of NCDs on individuals and their families. An individual suffering from NCDs spends approximately one third of household per capita expenditure on healthcare services and purchase of pharmaceutical drugs. National aggregate out of pocket health expenditure amounted to JM\$ 33,813 million (US\$452 million), or 3.08 percent of Jamaica's GDP. The 2006 and 2007 annual average total economic burden of NCDs, including indirect income loss, was estimated to be JM\$ 47,882 million (US\$ 641 million). The poorest, the elderly, and persons with hypertension spent more on healthcare than other groups of the population, indicating important targets for Government intervention.

### **Policy Options**

The preliminary analysis of Jamaica's NCD policy and Program indicates that the drug subsidy Program supported by the NHF has helped patients with NCDs reduce their spending on treatment. However, there is little evidence indicating that the trend of burden of disease due to NCDs is declining, and the study suggests much more needs to be done to stop and reverse the increasing trend. Treating patients by prescribing drugs at a lower cost to the patient is a worthwhile objective, but evidence from elsewhere suggests that preventing the disease from occurring is more cost effective.

Jamaica may want to consider the following policy options and interventions for enhancing its NCD Prevention and Control Program:

1) **Agree on a comprehensive National Strategy to tackle NCDs.** NCDs are due to behaviors and social conditions that require a comprehensive,



multilevel, and multisector strategy. Reversing the NCD epidemic in Jamaica requires a National Strategy that combines three levels of prevention. The focus so far has been on clinical interventions, by prescribing and subsidizing pharmaceutical drugs, and less on population-based primary and secondary prevention. The National Strategy will need to put population-based prevention at center stage and define achievable and measureable goals with specified time frames.

- 2) **Improve the efficiency of the NHF** by: (i) assessing the effectiveness of the prevention programs financed by the NHF; (ii) striking the appropriate balance between prevention and the drug subsidy programs; and (iii) improve targeting of the poor under the drug subsidy Program. Activities should focus on geographic areas where poverty, disease, and violence are concentrated, areas where the poor population would benefit from NHF coverage.
- 3) **Improve the surveillance system to monitor the risk factors and NCDs.** The dearth of reliable registration and reporting of cause-specific mortality and morbidity makes targeting difficult. Improved information on risk factors is a necessary first step to feed data into the NCD policy dialogue. Health information systems need to be developed to collect and report data on risk factors, mortality, morbidity, and the determinants of NCDs.
- 4) **Evaluate the effectiveness of strategies, policies and interventions.** Evaluation of the



effectiveness of existing strategies, policies and ongoing interventions will allow the Government to refine target groups and accelerate, adjust, or change interventions as a necessary process of learning from results on the ground.

5) **Policies to tackle NCDs should include primary, secondary, and tertiary prevention.**

Primary prevention aims to prevent exposure to the risk factors that cause NCDs. These may include policies against smoking, and to promote a healthy diet, encourage physical activity, and reduce harmful use of alcohol. Secondary prevention strategies aim at identifying and mitigating risk factors before they result in disease, and these include interventions such as quit smoking clinics and weight reduction programs. Tertiary prevention consists of measures aimed at softening the impact of long-term disease and disability by eliminating or reducing impairment, disability and handicap; minimizing suffering; and maximizing potential years or useful life<sup>3</sup>. Activities at the tertiary level should focus on the avoidance of complications and preventing the progress of the disease. The NHF Drug Subsidy Program falls into this category.

6) **Address the gender dimension when targeting.**

Women and men are exposed to risk factors to a different degree. Men are more likely to use tobacco and consume alcohol in excess, while women are more likely to be obese and physically inactive. Health promotion and disease prevention programs should target gender-specific risk factors using tested methodologies.

7) **Reorient the health services delivery system to adopt new care models.**

Disease Management Programs and integrated care models hold promise for more effective approaches to



improve health outcomes of patients with NCDs, as well as potentially contain costs and increase patient satisfaction.

8) **Adopt a multi-sector approach for NCD prevention and control by involving non-health ministries, civil society organizations, and the private sector.**

Jamaica has a wealth of experience in controlling the HIV/AIDS epidemic and this knowledge can be applied to NCD prevention and control. Civil Society Organizations (CSOs) and the private sector can play critical roles in promoting a healthy lifestyle and society, and preventing unhealthy diets, encouraging physical activities, and discouraging smoking and excessive alcohol consumption. The business community can contribute to both financing and implementing NCD prevention and control.

### *About the Authors*

Shiyan Chao is a Senior Health Economist and Team Leader for the Economic Sector Work on NCDs in the Caribbean, Willy de Geyndt is a Public Health Advisor, and Carmen Carpio is a Public Health Specialist. This “en breve” benefited from comments from Joana Godinho, LAC Health Sector Manager, and David Seth Warren, Caribbean Sector Leader.

<sup>3</sup> A Dictionary of Epidemiology. 4 ed. Oxford University Press, 2001 via <http://www.cdc.gov>

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