

MARKET ANALYSIS SUMMARY & IHI SURVEY ESTIMATE

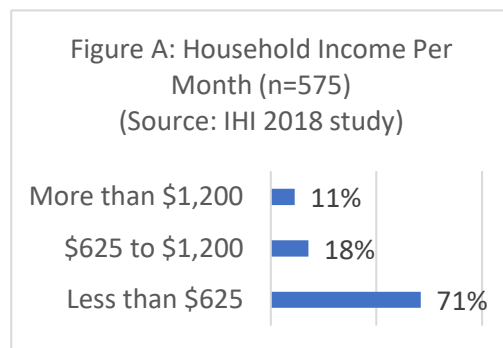
OF AVERAGE HAITIAN CITIZEN'S CAPACITY TO PAY FOR CANCER TREATMENTⁱ

Demand/need for chemotherapy

Haiti has a population of 10 million, translating to 2 million households (IHSI 2018). Based on estimate by DeGennaro et. al. (2016), at any given time the number of women in Haiti in need of treatment for breast cancer is 2,250. The expected number of new cases each year is 600. Yet, the number of women being treated in 2017 was only 1,175, less than half those suffering from the disease.^{ii iii}

Resources available to pay for treatments

Haiti is poor. Unemployment is a persistent 15% and GDP is \$736 (World Bank 2018).^{iv} But these official and widely cited figures are underestimates at best and, at worst, egregiously misleading. The fact is that no one knows what income distribution looks like in Haiti, the data available being of absurdly poor quality and slanted to highlight poverty. Moreover, Haiti has a vigorous informal economy. Excepting children and the elderly, everyone is engaged in some sort of productive enterprise or service, whether that means selling cookies, washing windows or fixing tires in the street. Congruently, the official data does not match what we know from on-the-ground surveys. In the IHI study conducted for this proposal, respondents reported an average monthly household income in excess of \$400 per month; 29% of respondents had household incomes in excess of \$625. (see Figure A).^v Those are overwhelmingly people from the working class. We know that the number of professionals earning incomes approaching those in the US runs into the 10s of thousands. Consider, for example, that there at least 1,000 NGOs and religious missions in Haiti employing an estimated average of 100 employees each.^{vi} There are 2,500 medical doctors in the country, mostly in Port-au-Prince, many of whom earn incomes comparable to US doctors—hence they have not left the country. There are 1,000s of other professional, from accountants and IT specials to marketing professionals who earn an average of \$20,000 per year or more (see Table A). None of this is to say anything about the 1,000s of beneficiaries of the illegal drug trade, contraband smuggling and government graft.



Moreover, income from work is just part of the typical Haitian household's survival strategy. Five percent of all Haitian households have members who own a truck or car (11 percent of those in the Port-au-Prince metropolitan area), many of which are used to generate revenue through taxi service; eight percent own a motorcycle, most of which are used for the same purpose (DHS 2012:17). In 2017, family and friends living and working overseas sent \$2.7 billion back to Haiti, that's \$270 for every man woman and child in the country, a figure that not only makes Haiti per capita one of those countries in the world receiving the most per capita from migrants, but is indicative of an explosive increase in informal sector revenue. The 2.7 billion just mentioned is twice the 1.3 billion sent in 2008. The trend in increasing remittances represents a growing trend in available wealth overall. In 2016, 4,411 new cars and light commercial vehicles were sold in

Haiti, three times the 1,409 sold in 2015 and more than twice the 2,580 sold in 2012, when Haiti was enjoying the apex of 10 billion plus in post-2010 earthquake aid. ^{vii} ^{viii}

**Table A: Preliminary Descriptive Statistics of Salaries in Haiti
(data collected Aug 2016 – Jan 2017)**

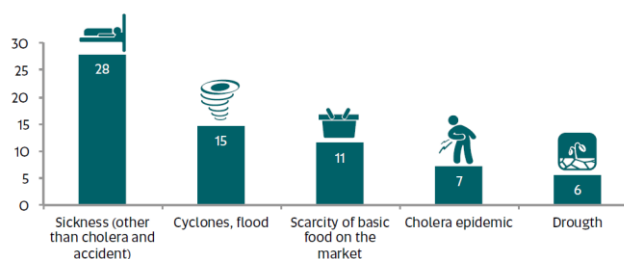
	Average 12-Month Salary	Number of Observations
Accountant	\$11,176	36
Administrative Professional	\$16,343	44
Business Development/Marketing Professional	\$19,777	8
Cleaning Staff	\$3,099	28
Cook/Nanny/Waiter	\$3,750	6
Coordinator/Administrator	\$23,781	38
Country Director	\$28,503	9
Data Entry Clerk	\$4,977	10
Doctor/Pharmacist	\$13,169	8
Driver	\$4,244	52
Economist/Finance Professional	\$32,744	22
Educator	\$6,927	5
Engineer	\$22,783	12
Executive/Director	\$46,258	29
Factory Supervisor	\$10,676	10
Factory Worker	\$2,024	6
Handyman	\$8,568	12
Human Resources Professional	\$28,743	23
IT Professional	\$24,535	16
Lawyer/Legal Counsel	\$5,908	4
M&E Professional	\$20,595	4
Manager	\$31,389	41
Manual Laborer	\$3,532	20
Mechanic	\$8,942	14
Medical Lab Professional	\$4,237	6
Messenger	\$2,842	21
Nurse	\$5,070	14
Office & Admin. Support Staff	\$8,607	32
Operations/Logistics Professional	\$17,507	24
Other	\$6,545	12
Secretary	\$10,600	20
Security Guard	\$2,570	28
Translator	\$7,373	10

Data from Demattee,Anthony; Publication pending
Observations = 624
Statistics describe 12-month salaries in USD (excludes all other sources of employment compensation)
Values constant currency conversion of 65HTG per dollar & 0.93 Euros/dollar
Data collected August 2016 - January 2017 from 71 employers in Haiti using a bilingual online survey

Expenditures on health care and availability

Although Haitians reportedly spend only an annual \$13 per capita on healthcare (World Bank 2017),^{ix} this has more to do with access to effective healthcare than it does with prevalence of disease. Sickness and accidents are, by far, the most severe shock that Haitians households report suffering. In a major 2012 survey, for example, 28 percent of households cited sickness and accidents as the most severe shock their household suffered in the previous year vs. 15 percent citing natural disasters, such as hurricanes, floods and earthquakes (see Figure B). The most common medical practitioners are shaman and other fraudsters, such as those who treat patients with injections of water. literally known as *charlatan* (but best translated as “needle doctors”) they treat ailments from coughs to cancer and HIV. The situation is such that while there are only about 3 health care workers per 10,000 population in rural Haiti, the number of informal healers is 1 per 100 Haitians (Durham et al 2015: 5).^x

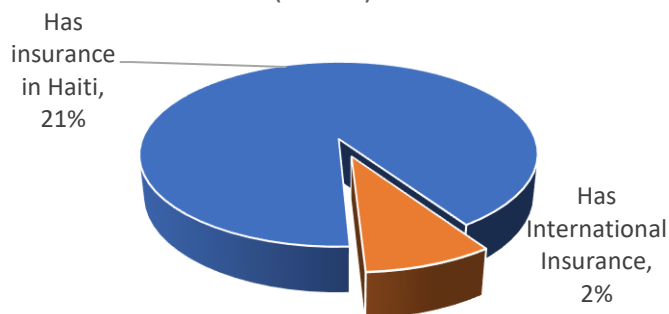
Figure B: The Five Most Severe Shocks Among Haitian Households, 2012 (in percent)



Source: ECVMAS 2012, World Bank and ONPES calculations

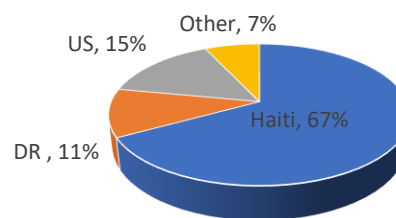
None of this means that Haitians are not inclined to and in fact do spend considerable sums on health care. In the IHI study, 22 percent of respondents reported that someone in the household had been hospitalized in the previous year; in 4 percent of households two or more people had been hospitalized. For those who had ill household members, the average expenditure on the ill in the previous year was \$157; six respondents reported spending more than \$500. Moreover, 18% of respondents in the 575 respondent IHI survey have insurance and 2% have international insurance.

Figure C: Respondents in IHI Port-au-Prince Survey who Have Insurance (n=575)



In short, Haitians have access to far greater resources than commonly thought, they greatly suffer from sickness and disease, but there is a great and unmet need for effective treatments, particularly regarding breast cancer. A significant portion of the population has insurance that can be used to meet the medical costs of treatment. Moreover, most of these people would prefer to get treatments in Haiti. When presented with the hypothetical situation of being stricken with a disease and requiring treatments, of the 92 respondents who had visas and could travel, 67 percent said they would prefer to be treated in Haiti.

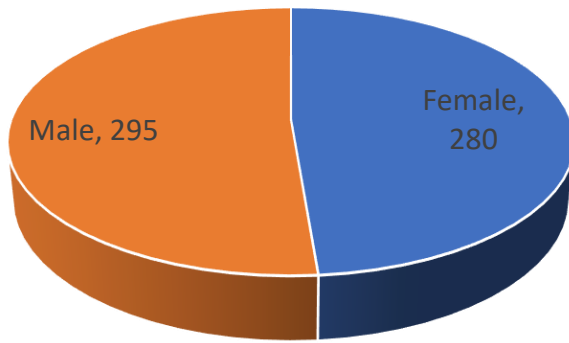
Figure D: Where Visa-holding Respondents would Prefer to be Treated if Stricken with Disease (n=92)



Textbox: The IHI Survey

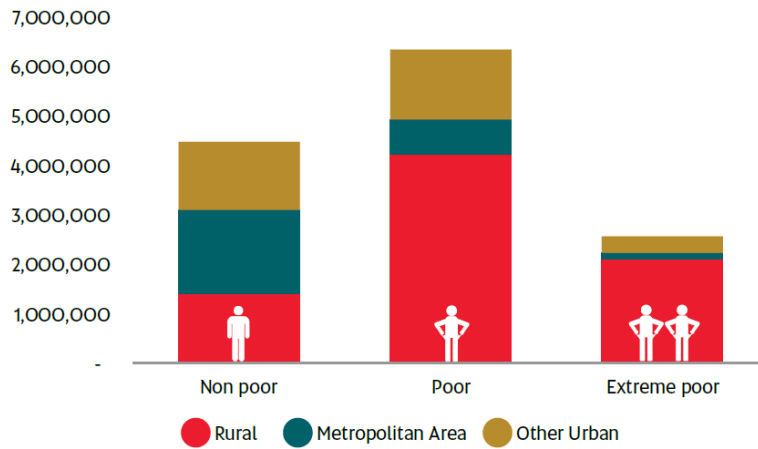
Between January 29th to February 13th, 8 surveyors working with Socio-Dig (Socio-Digital Research Group) conducted 575 surveys. Sample selection was random. The surveys were conducted in the vicinity of nine major Port-au-Prince supermarkets located in four distinct areas of the city: Delmas, Tabarre, Airport, and Petion Ville. Respondents themselves lived throughout Port-au-Prince. The principal areas of residence are listed in Table B. Regarding the selection respondents, surveyors alternated between male and female respondents, each surveyor selecting every third passersby to be interviewed. In total, we interviewed 295 males and 280 females.

Figure E: Sex of Respondent

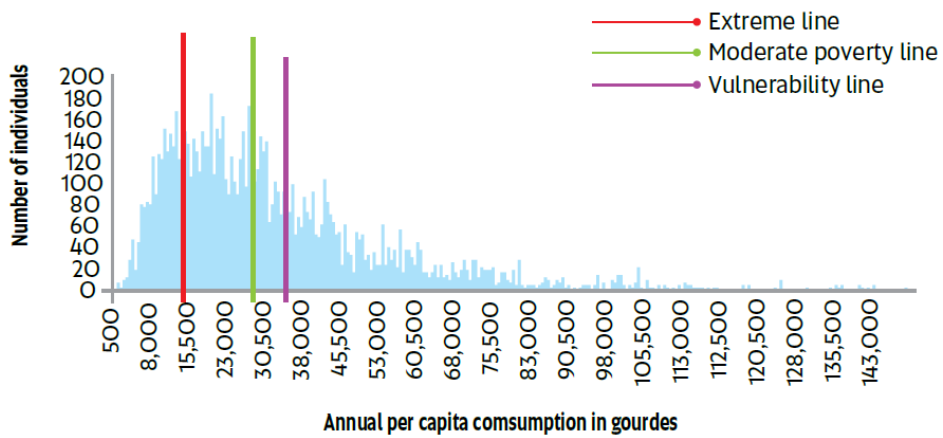


Area Where Respondent Lives	Number of Respondents
Bourdon/Nazon	25
Canape_Vert	14
Martissant/Kafou area	16
Petion-Ville	63
Tabarre area	104
Turgeau/Pacot area	23
Canaan/Corail	45
Bonrepo	37
Other areas	248
TOTAL	575

Useful Figures and Notes

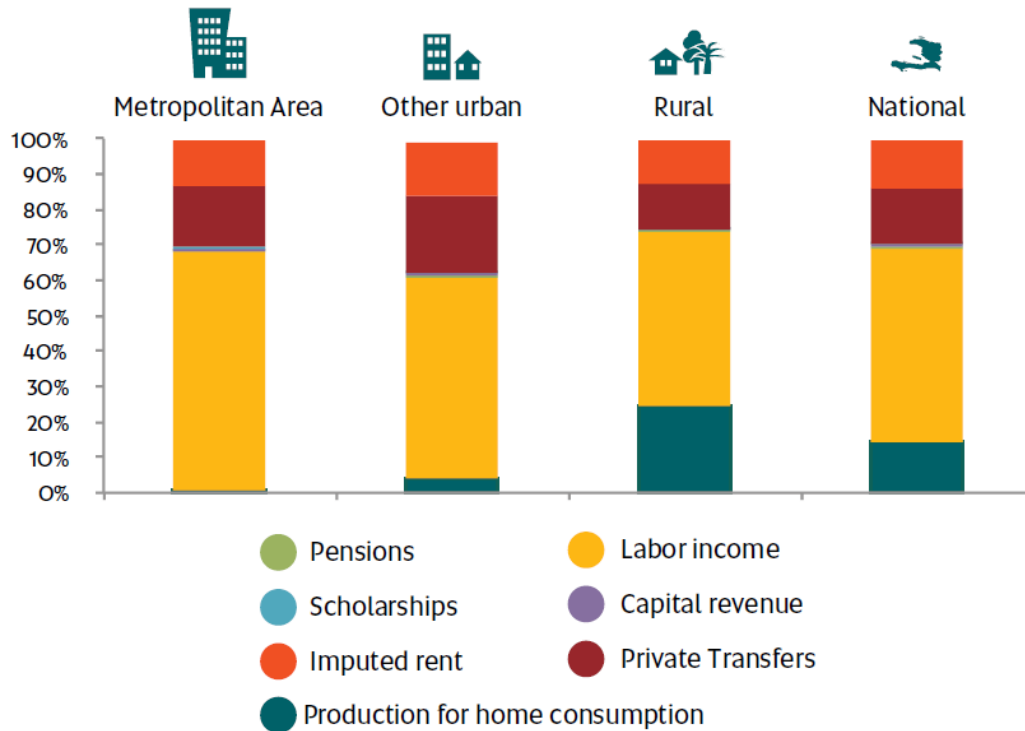


Source: Official poverty rates, based on ECVMAS 2012; World Bank and ONPES calculations.

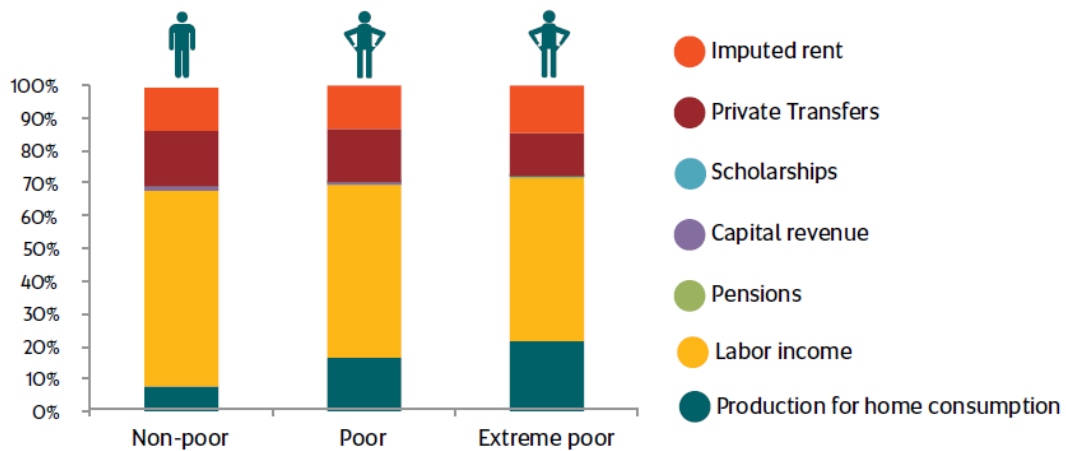


Sources: ECVMAS 2012 and official poverty lines; World Bank and ONPES calculations.

Figure 1.5. Income composition in urban and rural areas and by poverty status
a. Income composition, by area of residence

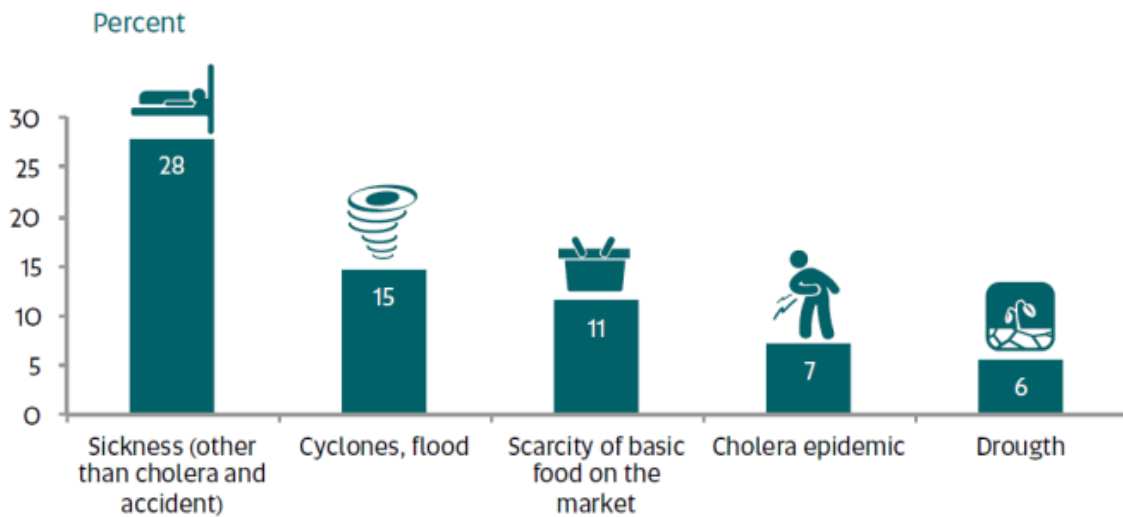


b. Income composition, by poverty status



Sources: ECVMAS 2012; World Bank and ONPES calculations.

Figure 3.13. The five most severe shocks among Haitian households, 2012.



Source: ECVMAS 2012; World Bank and ONPES calculations

List of authorized insurance companies in Haiti
post 09.03.2015 of VTG NEWS
(source: www.haitilibre.com)

As part of its mandate, the Ministry of Economy and Finance (MEF) published in a note for the benefit of entrepreneurs, traders, officials of national and international organizations and the general public, the list of insurance companies authorized to carry out operations in the country.

"Only the insurance companies whose names appear below are authorized to conduct insurance business in the country of Haiti, "says the note

"Les Assurances Léger S.A (ALSA)

Seems to be for foreigners and Haitians who have residence....;

<http://www.alsagroup.com/?p=22>

Internationale Assurance S.A (INASSA) ;

Nationale d'Assurance S.A (NASSA) ;

Looks like they go through QHM) <http://www.nassagroup.com/home/reclamation-inassa/> And that it's international.

La Compagnie d'Assurance d'Haïti S.A (CAH) ;

<http://www.cah.ht/plan-traditionnel-medical-majeur/>

Yes health. This one seems focused on Haitian medical care system

Alternative Insurance Company (AIC) ; <http://aic.ht/>
Does not seem to have health insurance

Haïti Sécurité Assurance S.A ;
Nothing about health. Only fire auto, and theft/business...

National Western Life Insurance Co. (NWL) ;
Looks international and says nothing about Haiti.

L'Atout Assurance S.A ;
Nothing online about it.

SogeAssurance S.A ;
Only goods
UniAssurance S.A ;
emphasis on goods. Says health but dubious

Onyx Assuranc S. A (captive).
NOT INSURANCE

According to DeGennaro OFATMA insures 190,000. Inassa insures 90,000 people. The other four private companies insure 20,000-50,000. So, maximum, there are 500,000 people with insurance in Haiti. (Personal Communication).

Based on estimate by DeGennaro et. al. (2016), the number of women in Haiti in need of treatment for breast cancer is 2,250. The expected number of new cases each year is 600. Yet, the number of women being treated in 2017 is an estimated 1,175).

IHI 325 per year
PIH 700
SHONC 100
HUEH 50

Thus, the IHI center is one of four chemotherapy programs in Haiti, and is the second largest in terms of patient volume.

WORKS CITED

Vincent DeGennaro, Jr, MD, MPH, and Stuart Malcolm, MD, Lindsay Crompton, MPA, Krishna Vaddiparti, PhD, Lazarus Mramba, PhD, Catherine Striley, PhD, Linda Cottler, PhD, Kellee Taylor, MD, Robert Leverence, MD. 2016. Community-based diagnosis of non-communicable diseases and their risk factors in rural and urban Haiti: a cross-sectional prevalence study.

IHSI 2018. Institute Haitien de Statistique et d'Informatique. <http://www.ihsi.ht/>

Vijaya Ramachandran, 1/9/12 Center for Global Development, "Is Haiti Doomed to be the Republic of NGOs?" <https://www.cgdev.org/blog/haiti-doomed-be-republic-ngos>

ECVH 2001 Haïti, Ministère de l'Économie et des Finances; Institut Haïtien de Statistique et d'Informatique; Programme des Nations Unies pour le développement. Enquête sur les conditions de vie en Haïti (ECVH-2001). Port-au-Prince, January 2004.

Moody's Analytics, 2018. Economic Indicators.

<https://www.economy.com/haiti/unemployment-rate> Accessed February 3rd 2018

Schwartz. Timothy. 2017. The Great Haiti Humanitarian Aid Swindle. Create Space.

Car Sales Database. Accessed February 2018 <http://carsalesbase.com/total-market-sales-country/haiti-car-sales-data/>

World Bank Press Release: Haiti: New World Bank Report Calls for Increased Health Budget and Better Spending to Save Lives June 27, 2017 <http://www.worldbank.org/en/news/press-release/2017/06/26/haiti-new-world-bank-report-calls-for-increased-health-budget-and-better-spending-to-save-lives>

Durham, J. and Marcos Michael, P. S. Hill and E. Paviignani. 2015. Haïti and the health marketplace: the role of the private, informal market in filling the gaps left by the state. In BMC Health Services Research 15:424

NOTES

ⁱ Survey design and research conducted by Socio-Dig (Socio-Digital Research Group).

ⁱⁱ IHI 325 patients per year, PIH 700 per year, SHONC 100 per year, and HUEH 50 per year.

ⁱⁱⁱ For recent studies on cancer in Haiti see,

DeGennaro, V Jr, F. Jiwani, E. Patberg, M. Gibbs, R. Libby, D. Gabriel, C.D. Heldermon, K Daily, and J. Bernard. 2016. Epidemiological, clinical, and histopathological features of breast cancer in Haiti. Port-au-Prince, Haiti.

Tillyard, Grace, Gerty Surena, Jean Ronald Cornely, Max Joseph Mondestin, 5, Dorothy Senatus, Vincent DeGennaro Jr. 2016. A Mixed Methods, Community-Based Investigation on Women’s Cancer Awareness in Haiti.

Vincent DeGennaro, Jr, MD, MPH, Stuart Malcolm, MD, Lindsay Crompton, MPA, Krishna Vaddiparti, PhD, Lazarus Mramba, PhD, Catherine Striley, PhD, Linda Cottler, PhD, Kellee Taylor, MD, Robert Leverage, MD. 2016. Community-based diagnosis of non-communicable diseases and their risk factors in rural and urban Haiti: a cross-sectional prevalence study.

^{iv} For GDP, see <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD>

For employment, see Moody’s Analytics, Economic Indicators, <https://www.economy.com/haiti/unemployment-rate>

^v Figures in the main text do not include those who refused to respond to questions about monthly income.

Table ##: Monthly Household Income		
Income	Count	Percentage
More than \$1,200	49	9%
\$625 to \$1,200	77	13%
Less than \$624	308	54%
Refuse	141	25%
Total	575	100%

^{vi} The number of NGOs with 100 or more national employees is an educated guess from the author who has studying NGOs in Haiti for the past 28 years. However, for estimates of national employees for some of the largest NGOs, UN organizations and foreign embassies see Schwartz (2017: 89). See also Vijaya Ramachandran, 1/9/12 Center for Global Development, “Is Haiti Doomed to be the Republic of NGOs?”

<https://www.cgdev.org/blog/haiti-doomed-be-republic-ngos>

^{vii} For information on vehicles see <http://carsalesbase.com/total-market-sales-country/haiti-car-sales-data/>

^{viii} Most Haitians, in fact, own their own home. 60-70% of the 600,000 families in the Port-au-Prince metropolitan own the home they live in. Regarding home ownership in Port-au-Prince: in fact, surveys before the earthquake estimated that 42 percent of Port-au-Prince residents were home owners (ECVI 2001). In the USAID/BARR (2011) Survey we found that 70 percent of Port-au-Prince respondents claimed to own the house they lived in, 60 percent claimed to own the land, 93 percent of these had some kind of paper. Notable as well is that the USAID/BARR census of Ravine Pentad (2010)—one of the Port-au-Prince neighborhoods most impoverished and most severely damaged in the earthquake—found that 60 percent of respondents owned the house; 51 percent owned the house and land. The discrepancy in the differences between the USAID surveys and that of the 2001 ECVH is due to the latter not have differentiated between ownership of the house and ownership of the land. As seen in the USAID surveys, a common practice in popular neighborhoods is to build homes on rented land and

subsequently purchase the land. Rents for land are typically 1/10 to 1/20 that of the rent for home. In a 2012 survey I designed and coordinated for CARE International we visited 800 randomly selected homes in Leogane and found that 72 percent of household heads reported they owned the land and the house. In a CARE funded survey of heavily urbanized Carrefour we found that 50 percent of 800 randomly selected household heads 50 percent claimed to own the house and the land; 60 percent owned the house.

^x World Bank Press Release: Haiti: New World Bank Report Calls for Increased Health Budget and Better Spending to Save Lives June 27, 2017

<http://www.worldbank.org/en/news/press-release/2017/06/26/haiti-new-world-bank-report-calls-for-increased-health-budget-and-better-spending-to-save-lives>

^x J. Durham*, Marcos Michael, P. S. Hill and E. Paviignani. Haïti and the health marketplace: the role of the private, informal market in filling the gaps left by the state. *In BMC Health Services Research* (2015) 15:424