

# The Economic Costs of Violent Crime in Urban Haiti

## Results from Monthly Household Surveys

### August 2011– July 2012

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## Summary

Crime and victimization are amongst the most pressing concerns cited by Haitian citizens today. Surveys conducted on a monthly basis between August 2011 and July 2012 indicate that violent crime is increasingly common, particularly in the densely packed `popular` zones of Haiti's largest urban centers. Paradoxically, in spite of increased international investment in restoring the capacities of the Haitian National Police, ordinary Haitians struggle to access basic policing services.

This *Strategic Brief* is the second of a series that features findings from longitudinal surveys using random sampling methods. The assessment is focused principally on households residing in urban areas of Port-au-Prince, Les Cayes, Cap Haitien, Gonaives, St. Marc, Jacmel and Leogane. All respondents were randomly selected and surveyed about their experiences with crime, their quality of life, and their ability to access basic services such as health care. Taken together, these surveys also demonstrate the serious economic costs of insecurity amongst ordinary Haitians.

### The findings of the *Strategic Brief* are:

- The crude murder rate for Port-au-Prince increased from 60.9 to 76.2 murders per 100,000 between February and July 2012, with residents of "popular zones" being 40 times more likely to be murdered than other urban dwellers.
- The costs of a physical or sexual assault on a household member amounts to roughly 20 per cent of the household's annual income while a murder can leave households with expenses that are 5.5 times the annual average annual income.
- Children are particularly vulnerable to adverse outcomes after the victimization of a household member. When compared with children from households not experiencing crime, victimized children were more likely to be sent to live with other families as *restaveks* (unpaid domestic servants), to experience food insecurity, and to be forced to withdraw from school.
- Funeral and burial costs averaged USD \$4,958.70. Nearly all of the households surveyed took out loans to pay for the costs of the funeral; the interest charged on loans from moneylenders and morticians ranged from 50-150 per cent.

- Reports of police bribes increased between August 2011 and July 2012. Nearly 25 per cent of victims of physical assaults and 19 per cent of victims of property crime said they were asked for or paid a bribe to police to facilitate the progress of their case.
- More than half of sexual assault victims and household members who tried to report the crime to the police complained that officers refused to make a report or tried to dissuade the victim or family members from doing so. Roughly 12 per cent of sexual assault victims reported paying or being asked for bribes by police; the average bribe given was 1,209 gourdes (SD: 744.3 gourdes), about USD \$30.

## Methods

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The present assessment applied a random GPS coordinate sampling approach to surveying local populations. Specifically, households in urban areas of Haiti<sup>4</sup> were selected for inclusion in the assessment. A total of 3,000 households participated in twelve surveys, each 25-30 days apart, with a response rate of 90.4 per cent.<sup>5</sup> A two-member research team visited the selected home and randomly selected an adult over the age of 18 to interview.<sup>6</sup> The same adult was subsequently contacted on a monthly basis for follow-up interviews via telephone through July 27, 2012. The demographic profiles of the respondents were similar to other household surveys conducted in urban areas of Haiti in recent years.<sup>7</sup>

During the baseline interview an extensive list of questions were posed to the respondent about issues ranging from educational history and access to health care to the household's religious background, involvement in social activities, and history of crime victimization. Subsequent interviews were conducted monthly via telephone, during which the respondent was asked about personal experiences and the experiences of other household members during the previous 30 days. Respondents were also asked their opinions about a range of security, political and economic issues.

Generally, estimates of the burden of crime are confined to effects on the individual such as mortality rates, measures of survival and quality of life, and disability-adjusted life years.<sup>8</sup> While these approaches are useful they are often unable to capture the complex micro-economic impacts of crime on households or accurately reflect the interdependent social and economic costs of violent crime. Estimating the burden of violence is challenging in any context, but particularly in developing countries such as Haiti where extensive social and family networks mitigate the adverse impacts of crime. By estimating the direct and direct economic costs and the immediate effects that such costs generate for Haitian households, this analysis seeks to illuminate some of the complex consequences of violence beyond death and injury.

While there are a number of models which have been used to calculate the economic costs of crime,<sup>9</sup> the present analysis accounts for the direct costs to the household in which the victim resides. Direct costs of a crime are those that require actual payments for which funds would not have been required had the crime not occurred. These can include both medical and non-medical costs. In this analysis lost wages have been included in direct non-medical costs but only in cases where the employed individual was temporarily forced to leave work for which he or she received an hourly, daily, weekly or monthly wage.<sup>10</sup> As such, this analysis presents a conservative estimation.

For each type of crime, an "average cost" was created by calculating the mean for individual specific expenses (for example, the average cost paid by the household to replace a stolen item) reported by all victims reporting this crime in the previous 12 months. All cases were included in this calculation even those where the cost was reported as zero because the household did not replace a stolen item. Similarly, the average costs for bribes included cases where a



bribe was not paid, with that amount entered in the dataset as zero. The mean for each category of expenses was then combined to create a total “average cost” per incident.

## Crime Victimization

As detailed in previous work by the authors, crime victimization among urban Haitians has increased over the past year, particularly murders and armed robberies.<sup>11</sup> This is in contrast to a pattern of secular decline in homicidal violence between 2007 and 2011. Of the four types of crime measured by earlier studies, only sexual assault decreased when compared to February 2012 (the last month during which a sharp increase in crime was recorded). By July 2012, the crude murder rate for Port-au-Prince had actually *increased* from 60.9 to 76.2 murders per 100,000 Port-au-Prince residents, a considerable shift from historically low rates. Residents of “popular zones,” densely packed urban areas of low socio-economic status, were 40 times more likely to be murdered than other urban dwellers (see Table 1).<sup>12</sup>

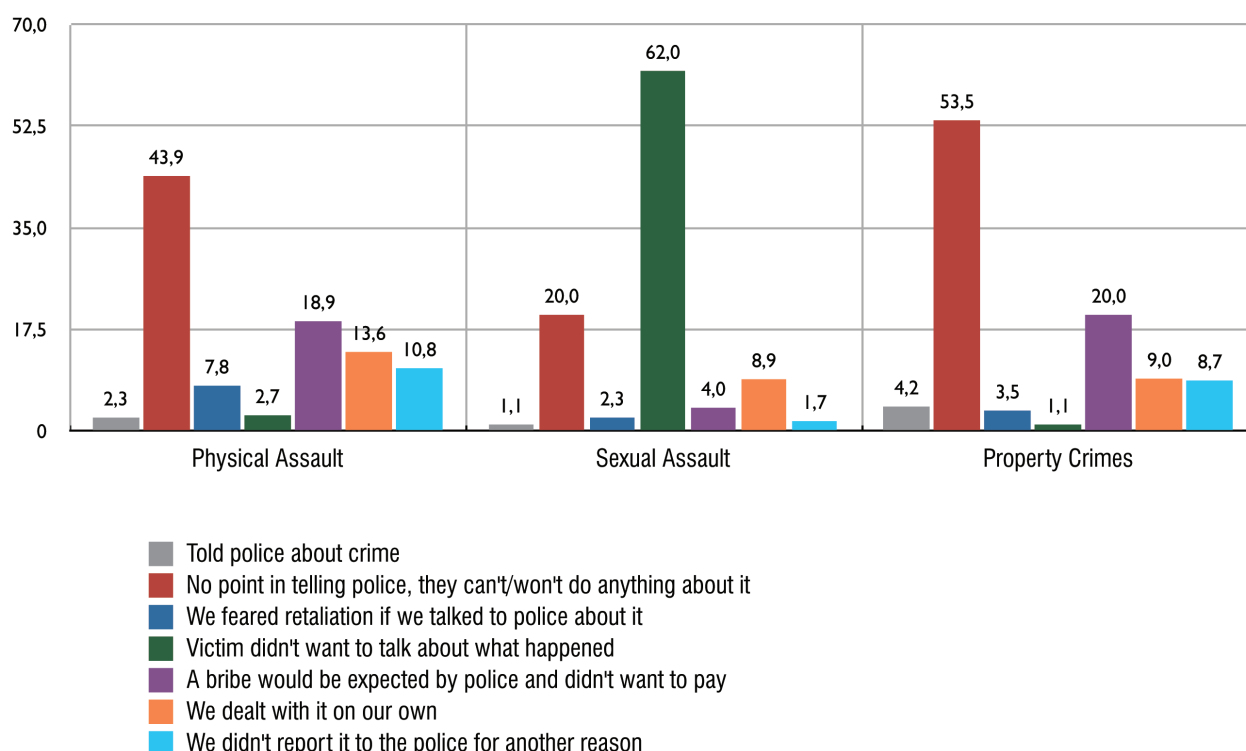
**Table 1. Crime victimization (July 2012)<sup>13</sup>**

	Number	Percentage (n=15693)	Relative risk for Port-au-Prince residents <sup>14</sup>	Relative risk for popular zone residents <sup>15</sup>
Murder	5	.032%	*	40.3
Physical Assaults	40.3	.19%	1.6	27.7
Sexual Assaults	10	.06%	3.2	15.1
Property Crime	99	.63%	4.9	19.3

*\*Not calculated: all murders reported by survey respondents in July 2012 occurred in Port-au-Prince.*

For each reported incident, the respondent was asked detailed information about the impact that the crime generated on the household and victim, the steps that were taken to report the crime (if any), and the outcome. By compiling crime data based on repeated household surveys, the research team was able to generate a comprehensive profile of crime and victimization in Port-au-Prince and other cities. Indeed, data generated by the government, while critical, is often incomplete and under-reports the severity of criminality. This is because it is based on incomplete reporting: many personnel fail to make reports, submit inaccurate data, or report irregularly.

Although all murders were reported to the Haitian National Police, the vast majority of assaults and property crimes were not reported (see Figure 1). Indeed, this echoes previous findings reported by the authors in 2011.<sup>16</sup> When asked why the victim or the head of household did not report the crime, most noted that either there was no point in reporting the crime because nothing would be done about it or that the victim elected not to report it at the time and that others in the household were unaware that it had happened until later. The latter response was most common in relation to reported sexual assaults.

**Figure 1. Reasons for failing to report crime to police (percentage by crime victimization type)**

Nearly one in five respondents reporting physical assaults or property crime stated that the household did not report the crime to police because a bribe would be expected (either by the officer taking the report, or by those who might arrest or detain the perpetrator). This expectation of being asked for an informal payment or “gift” was confirmed by those who did notify police; nearly a quarter of those who reported physical assaults and 19 per cent of those who reported property crimes said they were asked for or gave a bribe to police to facilitate the progress of their case. The average bribe given in this situation was 640 gourdes (SD: 328.6 gourdes), or roughly USD \$16.<sup>17</sup>

Sexual assault victims were less likely to be asked for a bribe by police with only 12 per cent reporting that they were asked for or gave a bribe to police to facilitate the progress of their case. The average bribe given, however, was significantly higher than for other crimes at 1,209 gourdes (SD: 744.3 gourdes), roughly USD \$30. More than half of all reported sexual assault victims and their household members who tried to report the crime to the police reported that officers refused to make a report or tried to dissuade the victim or family members from making a report. In most cases they did so by implying that the rape was consensual, that the victim “asked for it”, or saying that it had been more than a few days since the rape and thus the perpetrator could not be charged with a crime.<sup>18</sup>

## Direct Costs

This section considers the direct and indirect economic costs of crime as well as the costs to specific groups including families of murder victims and households with children. The direct costs of crime on the victim and their household members can be determined through an accounting method. It includes an aggregation of individual and household



expenses arising from crime, such as paying for medical costs for treatment, lost wages for missed work, school fees for child victims who are forced to withdraw from school for a term owing to physical or emotional trauma, transportation for treatment or legal reasons, fees (both customary and “informal” payments) incurred while interacting with the policing and justice systems, funeral expenses, as well as the value of the physical property that was replaced after being stolen or damaged during the incident (see Table 2).

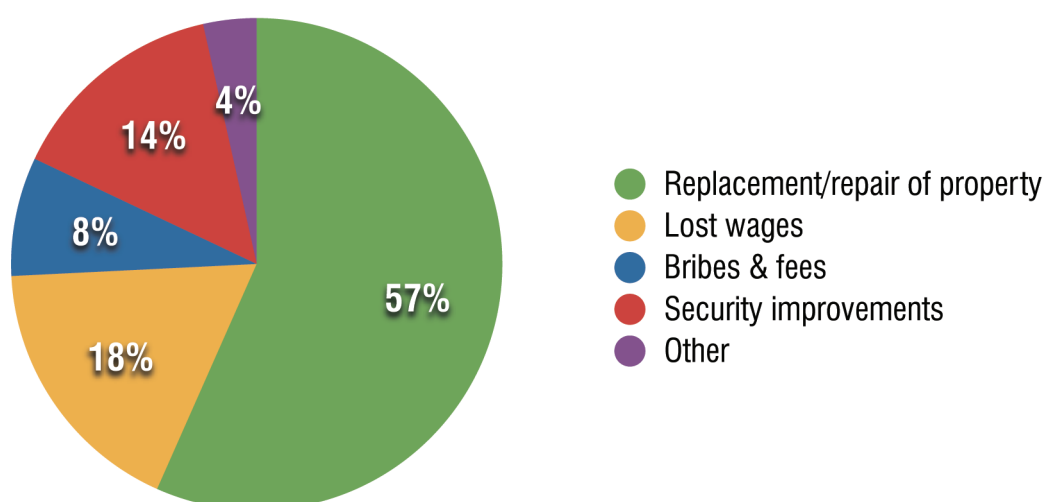
**Table 2. Direct costs of property crimes and assault**

	Percentage reporting crime in the past year*	Average total cost per incident in USD
Property Crimes	32.0% (960 households)	\$47.90 (SD: \$15.31-286.69)
Physical Assault	1.5% (242 individuals)	\$253.58 (SD: \$99.45-308.26)
Sexual Assault <sup>19</sup>	0.7% (113 individuals)	\$234.14 (SD: \$188.60-645.72)

\* For property crimes the percentage was calculated based on the number of responding households ( $n=3,000$ ); for physical and sexual assault the total number of individuals in responding households was used to calculate percentages ( $n=15,690$ ).

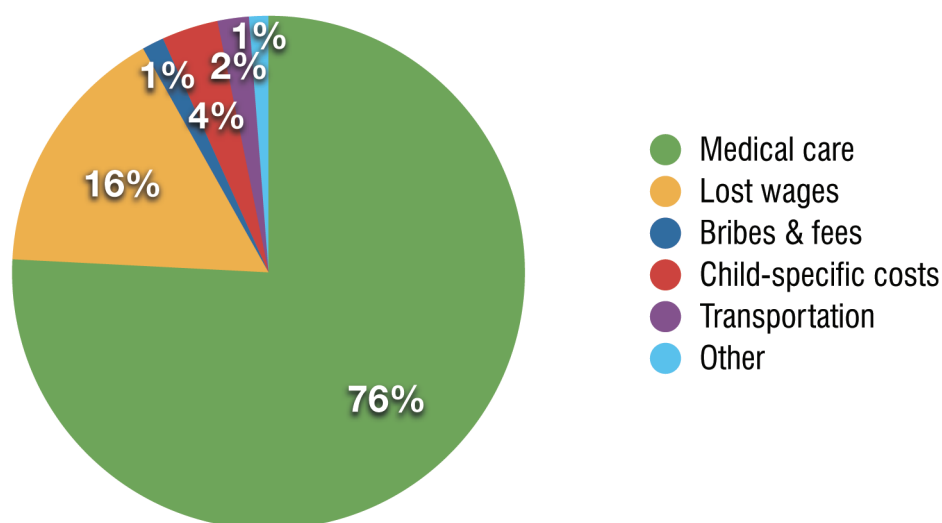
Not surprisingly, the most significant cost associated with property crime was associated with the replacement of stolen or damaged property (see Figure 2). Indeed, these costs were slightly higher for victims of vandalism and property destruction, particularly those who were forced to replace windows or doors that had been broken during a home invasion. Few victims of auto theft reported replacing their stolen vehicles (the mean value of stolen vehicles was USD \$6,244.36).<sup>20</sup> The most commonly stolen items included cell phones, small amounts of money, and wallets, purses or backpacks containing identification cards and other miscellaneous personal items. About 10 per cent of thefts of all thefts were of tools necessary for use in one’s workplace or home; all but one respondent who had tools stolen reported replacing them. Similarly, all of those who reported the theft of a cell phone stated that the stolen phone was replaced at an average cost of 1,366 gourdes (roughly USD \$34).

**Figure 2. Costs of property crime between August 2011-July 2012 ( $n=960$ )**

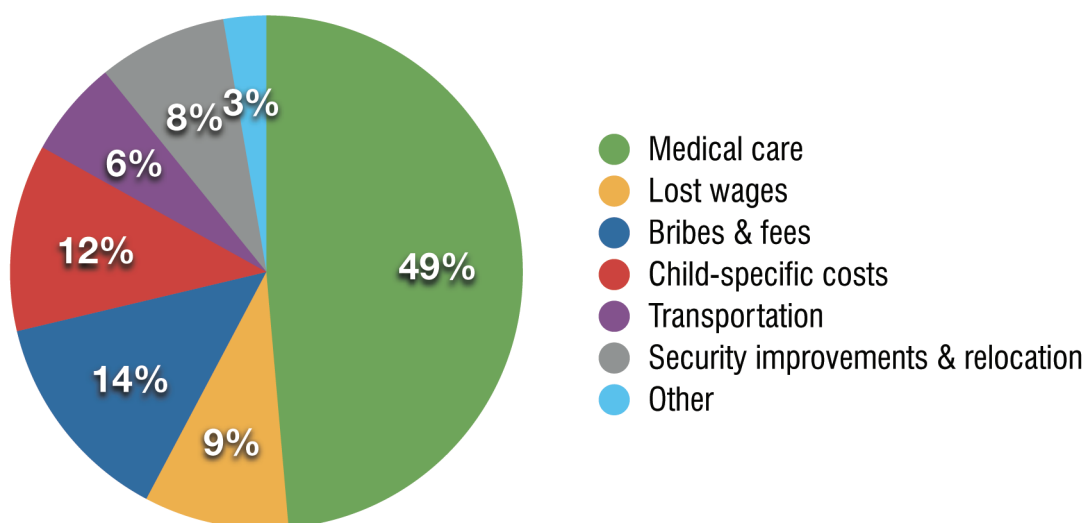


Different types of violent crime generate different kinds of costs for victims and their families. For both physical and sexual assault victims, for example, the single largest financial expense attributed to their attack consisted of medical expenses. Indeed, these averaged USD \$191.81 per incident for physical assault victims and USD \$71.84 for sexual assault victims (see Figures 3 and 4). Nearly 80 per cent of all assault victims reported ongoing medical expenses related to the incident and more than half of those who had gunshot wounds were left with a permanent disability. The present assessment considered only what victims reported paying and not the extended costs for surgeons, physicians, and nurses in hospitals and clinics, much less related palliative care provided in the wake of the incident.

**Figure 3. Costs incurred by physical assault victims between August 2011-July 2012 (n=242)**



**Figure 4. Costs incurred by sexual assault victims between August 2011-July 2012 (n=113)**



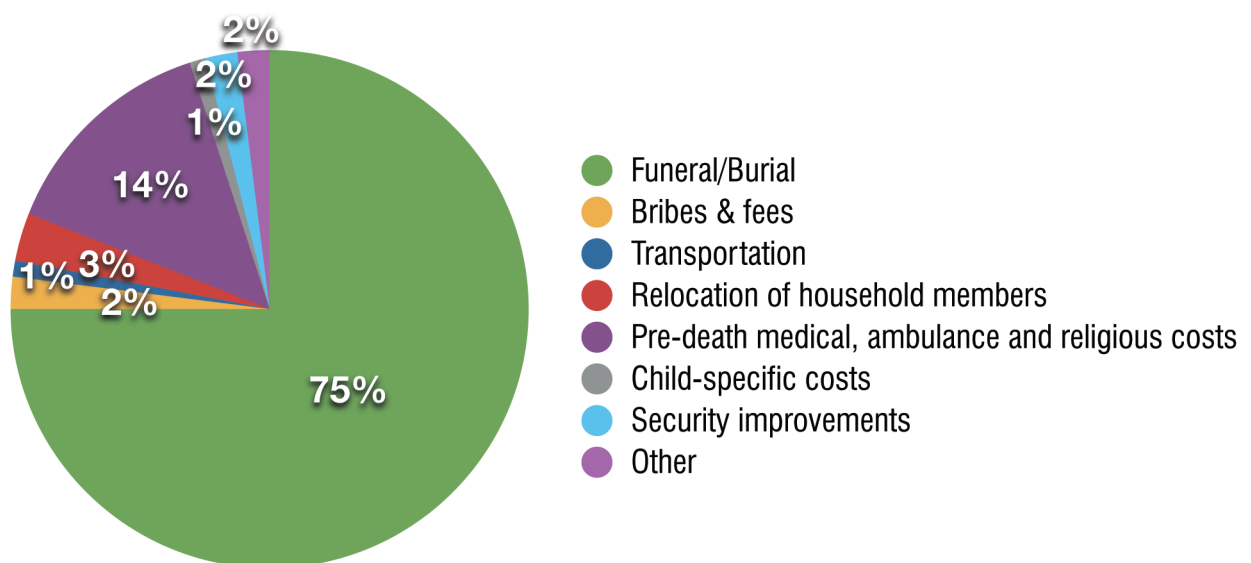


## Families of Murder Victims

There is an observable increase in homicidal violence in Haiti since the middle of 2011. Indeed, a total of 36 murders were reported by households during the study period up until July 2012. As in previous assessments, the vast majority of murder victims were male and between the ages of 20 and 40 years. Individuals were killed during crimes including armed robbery (n=14), in domestic disputes (n=5), by police and security guards (n=4), during fights with neighbors or friends (n=9), and by unknown perpetrators and assailants (n=4).<sup>21</sup>

No matter the circumstances of the murder, household members reported experiencing severe economic crisis after the incident. Indeed, as heads of households or young men in the prime of their working lives, the majority of those killed were providing monetary assistance to the household, leaving households with lost income. The mean monetary cost to the household associated with a murder incident was USD \$6,657.08 (SD: \$5,002.19), the bulk of which was related to the cost of the funeral explained in more detail below (see Figure 5).<sup>22</sup>

**Figure 5. Costs incurred by households of murder victims between August 2011-July 2012 (n=36)**



Specifically, funeral and burial costs averaged USD \$4,958.70 (SD: \$2,330.11). Those who opted to send the deceased to be interned in rural areas spent 68.2 per cent less on funeral costs than those who buried their loved one in an urban or suburban cemetery.<sup>23</sup> In addition to funeral costs, households reported paying for ambulance services and pre-death medical costs, formal and informal fees to police and the justice system for paperwork and certificates, costs for religious and non-traditional health services (both before and after the death), transportation of family members to attend the burial or provide care for child, increased or improved security, and permanent relocation of household members.

The costs of attending to the dead resulted in the indebting of thousands of Haitians. Nearly all (91.6 per cent) of the households surveyed took out loans to pay for the costs of the funeral; loans were taken from family members, friends, employers, funeral service providers, and money-lenders. The interest charged on some loans was exorbitant with respondents reporting interest rates of 50-150 per cent being charged by money lenders and morticians. Family



members and friends were more likely to loan money without expecting interest; they were also often willing to contribute money or services without expecting to be remunerated.

Nevertheless, respondents described funeral costs as “overwhelming”. As one respondent put it:

*“I’m 26 years old and I’m going to be in debt for the rest of my life. I just started my [auto] mechanic business and I should be putting the money I make back into my business. But by the time I finish paying for the debt of my brother’s funeral it will be time for me to pay for my parent’s funerals... This debt is a weight on my shoulders, pushing me down when I try to straighten my back. Our family will never be able to recover.”*

These and other stories are endlessly repeated in the midst of Haiti’s crime surge.

## Impact of Crime on Children

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As in many settings experiencing sharp uptakes of violence, children often suffer more dramatically than other segments of the population.<sup>24</sup> Indeed, in the surveyed population in Haiti, children under the age of 18 accounted for more than half of all sexual assault victims, slightly less than a quarter of all assault victims, and a tenth of all murder victims.<sup>25</sup> Children living in popular zones were more likely to be victimized than those living in other zones and those children living in homes without a biological parent were 16.4 times more likely to be sexually or physically assaulted than other children.

The implications of criminal victimization on children extend beyond the incident itself. More than half (54 per cent) of respondents who stated that a child in the home had been sexually assaulted also said that the child had been removed from school following the assault. The most common reasons for removing the child from school included changes in the child’s behavior or emotional instability; money that would have been spent on school fees for the child was diverted to pay for costs related to the assault; and fears that child would be vulnerable to assault when unsupervised at school or while traveling to/from school.

Like adult victims, children who were subjected to physical and sexual assault required both emergency and ongoing medical care after the incident. Child physical assault victims were stabbed, shot, beaten, burned, and dropped from a building. All but one of the children subjected to penetrative sexual assault was left with health problems requiring ongoing medical treatment.

Indeed, child victims made an average of 3.6 visits to a medical service provider in the three months following the assault compared to 1.5 visits per month for adult victims. Children were also more likely to be sent to laboratories and specialists for evaluations and examinations. The average cost per medical visit of assault survivors was slightly higher for children at 1,033 gourdes (roughly USD \$25) compared to 728 gourdes (roughly USD \$18) for adults.

One mother of an 8-year-old rape victim explained:

*“She has had many, many problems since [the assault]. She has problems with urination and problems with her stomach. She’s sickly now and she doesn’t want to play with her friends. [The doctor] found*





*she had an infection from what that man did to her. But for the other sickness she has, we haven't found a reason for that yet. My purse is empty but I beg and borrow from everyone to pay the doctors... I just want my daughter to be healthy and normal again."*

In addition to being directly victimized, children also experienced economic and social impacts of crimes against other family members. Children were frequently relocated after another household member was assaulted or murdered, both for their own protection and because the household was no longer able to care for them. In 60.3 per cent of child relocation cases the household provided monetary remuneration to the household receiving the child to cover their increased food costs or pay for school fees. However, in the remaining cases (39.7 per cent), children were relocated to be *restaveks*, unpaid domestic servants who work for a family in exchange for room and board.<sup>26</sup>

Households that experienced a crime against a person (including physical assaults, murder, and rape or other forms of sexual violence) were asked what normal household expenses were reduced or cut to cover the costs imposed by the crime incident. Those households who made USD \$2,400 or less per year were most likely to report reducing the size, protein-content, or frequency of meals, opting for less-expensive non-traditional medical services for ill or injured household members, and not paying educational expenses for children. When controlling for income, children aged 6-12 from households in which a member was a victim of a crime against a person in the study period were 18 times less likely to be attending school than children from households reporting no crimes against persons during the study period.<sup>27</sup>

## Police Bribes

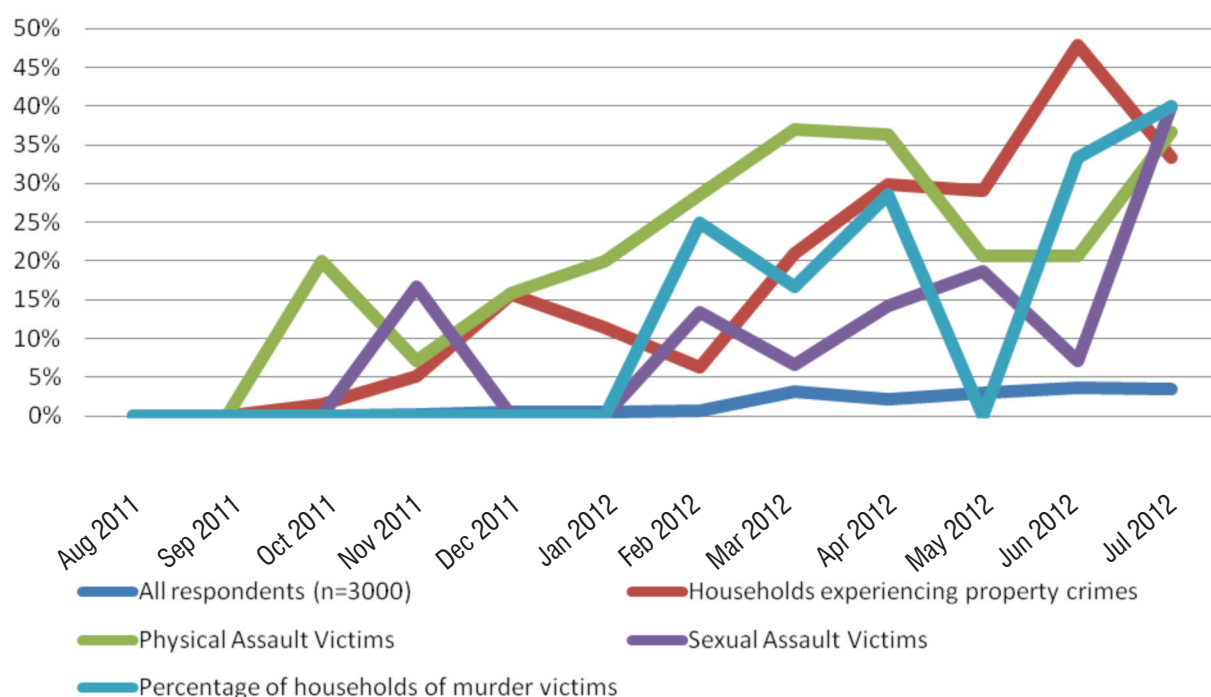
The number of survey respondents who reported being asked for or paying a bribe to police officers in the previous 30 days increased from 0 in August 2011 to 104 in July 2012 (see Figure 6). In the past year 532 respondents were asked for or paid bribes to police. Adult drivers of vehicles were 14.8 times more likely to report being asked for or paying a bribe in the previous 30 days than those adults who reported that they had not driven a motorcycle or automobile in the previous 30 days.

In addition to paying bribes to report a crime or to facilitate the post-crime investigation and arrest process, respondents reported bribe incidents related to real or perceived infractions of the law. Nearly half of those who reported paying a bribe stated that the incident occurred at a police roadblock in an urban area and that they were accused of lacking proper documentation for the vehicle in which they were traveling. Two thirds of those who reported this type of incident said that the accusation against them was false.

As one driver in Port-au-Prince said:

*"Police stopped me and said I didn't have a [registration] sticker for 2012. I said, 'Commandant, please look at the windshield! My sticker is right there!' But I was still obliged to pay him 1,000 gourdes even though I had no problems to justify his demand for a fee. If I hadn't given the money to him he would have taken my driver's license and to get that back would have cost even more than 1,000 gourdes."*

**Figure 6. Percentage who reported being asked for or paying a bribe to police in the past year (by month)**



## Concluding Reflections

There is an understandable preoccupation amongst government entities, international donors, and non-governmental agencies in Haiti with ensuring security as the basis for sustained economic progress. Yet this report highlights the importance of simultaneously addressing the basic needs of survivors of violent crime and their households. There is a risk that the silent poor are suffering a double burden that could set back development gains for generations. Notwithstanding challenges of measurement, it is possible to begin estimating the micro-economic costs of criminal violence in violent under-developed settings.

This *Strategic Brief* considers the economic and social repercussions of crime on ordinary Haitian citizens. And it finds that for urban dwelling Haitians, the costs of crime are substantial. The average household in an urban area has an annual income of US\$1,200.<sup>28</sup> But a single physical or sexual assault on a household member costs roughly 20 per cent of the household's annual income while a murder can leave households with expenses that are more than five times the annual average income. Lower income households are likely to cut other essential expenses including food and education for children in order to cope with the unanticipated economic costs of the incident.

There are practical steps that can be taken to reduce the economic costs of violent crime. At a minimum, more attention is required to minimize the costs of funerals and in particular, create options for non-predatory money lending. Likewise, efforts should be directed to reduce police bribery which after some years of decline, has mounted once more. More oversight of crime is required, and police corruption must be elevated to the top priority of the government. The medium-



and long-term implications of violent crime on Haitian society are severe and must be squarely anticipated and prevented. Indeed, victimized children risk being sent away from their families following a violent incident and child victims of sexual assault endure trauma and prolonged medical problems.

## Endnotes

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<sup>4</sup> Respondents included 1,255 households in the greater Port-au-Prince area, 532 in Cap-Haitien, 201 in Jacmel, 212 in St. Marc, 298 in Gonaives, 243 in Leogane, and 259 in Les Cayes.

<sup>5</sup> A total of 3,318 households were approached and invited to participate in the study. Of these, 318 did not participate in the study. A two-person research team visited the home up to four times. If no adult was home during any of these visits the household was excluded; this accounted for 68 non-participating households. For 116 households, no one was found at home during the four attempted visits. The remaining 134 households declined to participate in the study.

<sup>6</sup> Adults with the most recent birthday were randomly selected to be the survey respondent.

<sup>7</sup> For a description of the demographic composition of selected respondents, please see Kolbe, A. and Muggah, R. Haiti's Urban Crime Wave? Results from Monthly Household Surveys (August 2011-February 2012). *Strategic Brief*, March 2012. Available online at: <http://igarape.org.br/haitis-urban-crime-wave-results-from-monthly-households-surveys-aug2011-feb2012/>.

<sup>8</sup> See, for example, Cohen, M. (2000) "Measuring the Costs and Benefits of Crime and Justice", *Criminal Justice*, Vol 4. [https://www.ncjrs.gov/criminal\\_justice2000/vol\\_4/04f.pdf](https://www.ncjrs.gov/criminal_justice2000/vol_4/04f.pdf) or Alda, E. and Cuesta, J. (2010). "A Comprehensive Estimation of Costs of Crime in South Africa and its Implications for Effective Policy Making", *Journal of International Development* 23 (7).

<sup>9</sup> See for instance Butchart, A., Brown, D., Khanh-huynh, A., Corso, P., Florquin, N. and R. Muggah (2008) *Manual for Estimating the Economic Costs of Injuries due to Interpersonal and Self-directed Violence*. Geneva: World Health Organization.

<sup>10</sup> Lost wages are usually included in measures of indirect costs as researchers calculate lost productivity; however, the high rate of self-employed and family run businesses in urban Haiti made calculating lost productivity challenging and thus, it has not been included in this report of preliminary findings.

<sup>11</sup> Butchart et al (2008)

<sup>12</sup> Though the sample size used in this paper is large enough to confidently assess the current crime rates, readers should be cautious about interpolating future events based on these figures. Since murder is a rare event, it is difficult to predict what will happen from month to month. Analyzing murder rates is analogous to analyzing a rare genetic disease. Though we can make observations about the event, our understanding will always be limited since the pool of affected persons will remain very small.

<sup>13</sup> A total of 36 murders were reported by study participants during the 12 month study period. Ten murders were reported by Port-au-Prince households between August 2011 and February 2012. See Kolbe and Muggah (2012). In March and April 2012, six murders were reported by Port-au-Prince residents each month; this went down to four in

May and two in June before again in July to five reported murders. Outside of Port-au-Prince murder was less commonly reported with only three incidents in January, April and June 2012.

<sup>14</sup> Compared to residents of other urban areas.

<sup>15</sup> Compared to those who do not live in popular zones.

<sup>16</sup> See Kolbe, A. and Muggah, R. (2011) “Securing the State: Haiti Before and After the Earthquake”, *Small Arms Survey 2011: States of Security*. Cambridge: Cambridge University Press.

<sup>17</sup> Approximate value in US dollars was calculated using the exchange rate of 40.5 Haitian gourdes to the USD, the non-bank rate in Port-au-Prince on August 3, 2012.

<sup>18</sup> According to survey respondents, none of the sexual assaults reported to the police resulted in an arrest of the perpetrator. One survey respondent reported that another household member, the father of a child victim, was briefly arrested after a physical altercation with a police officer who refused to take a report after his child was raped by a neighbor.

<sup>19</sup> Female sexual assault victims ranged from 6.2 – 65.8 years of age with a mean age of 19.5 years. Among female victims, 61.9 percent reported penile penetrated. Male sexual assault victims ranged from 7.0 – 18.2 years of age with a mean age of 11.4 years. Nearly 80 percent of reported sexual assaults on males included penile penetration.

<sup>20</sup> Though insurance is required for vehicles under Haitian law, none of the car theft victims reported being successful at receiving reimbursement for their stolen vehicle from the insurance company.

<sup>21</sup> Two cases were not included in this analysis: one individual died while in police custody; household members claimed that he was ill and was not provided with appropriate medical care during the month after his arrest. The mortician hired by the family stated that the individual died of cancer. Another individual died while away working in the Dominican Republic. Household members said the woman was murdered and stated that the death was caused by a curse placed by jealous neighbors. A death certificate presented to the research team listed the cause of death as heart failure.

<sup>22</sup> Only expenses incurred by household members of murder victims were included; those incurred by family members not living in the home were not included in this dataset. Debt was only included if the loan was taken out by a household member to pay for funeral and burial costs.

<sup>23</sup> None of those interviewed reported cremating their loved one's remains. Funeral and burial costs typically included: storage and transportation of the body; preparation of the body for interment by a mortician; purchasing a casket and burial plot; services provided by the mortuary including a rental of a mourning and/or viewing room, flower arrangements, musicians to accompany the body during the viewing and before/after the religious ceremony; preparation of funeral programs; payments to those religious leaders officiating the ceremony (this was true for practitioners of both Voodoo and Christianity), and monetary gifts to various individuals involved in the process including grave diggers, ushers, and drivers. For more on the of bury the dead in recent years, see Ghosh, B (2010) “Among Haiti's Innumerable Dead, A Coffinmaker Recession”, *Time Magazine*, accessed online at [http://www.time.com/time/specials/packages/article/0,28804,1953379\\_1953494\\_1957645,00.html](http://www.time.com/time/specials/packages/article/0,28804,1953379_1953494_1957645,00.html).

<sup>24</sup> See, for example, Richters, J. and Martinez, P. (1993) “Violent Communities, Family Choices, and Children's Chances: An Algorithm for Improving the Odds”, *Development and Psychopathology* Vol 5 (4).

<sup>25</sup> A total of 242 individuals were physically assaulted, 113 were sexually assaulted, and 36 were murdered during the study period. Of these, 59 physical assault victims and 58 sexual assault victims were children under age 18 at the time of the assault. Four children under age 18 were killed during the study period; three were teens murdered during violent crimes and the fourth, a school aged child, was a victim of child abuse by a family member.

<sup>26</sup> Restaveks are particularly vulnerable to physical and mental illness as well as victimization. See for instance Leeds, I. L., Engel, P. M., Derby, K. S., Kapadia, S. M., Chery, M. P., and Bhatt, A. (2010) “Two Cases of Restavek-Related Illness: Clinical Implications of Foster Neglect in Haiti”, *American Journal of Tropical Medicine and Hygiene*, Vol 83 (5) in addition



to Kolbe, A. R. and Hutson, R. A. (2006) “Human Rights Abuses and Other Criminal Violations in Port-au-Prince, Haiti: A random survey of Households”, *The Lancet* Vol 368 (9538).

<sup>27</sup> Only households with children aged 6-12 were included in this analysis.

<sup>28</sup> Annual income includes earned wages, rental income (minus direct rental related expenses) for landowners, profit from family business, and remittances from family and friends abroad. It is important to note that income from all “working” individuals was included in this calculation including child laborers and those who earn income through illegal sources such as drug sales, theft and prostitution.