

Prevalence of physical violence against children in Haiti: A national population-based cross-sectional survey

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University of Washington

**Abstract**

Prevalence of physical violence against children in Haiti: A national population-based cross-sectional survey

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**Background:** Although physical violence against children is common worldwide, there are currently no national estimates in Haiti.

**Methods:** A three-stage clustered sampling design was utilized to administer a population-based national household survey to 13-24 year old Haitians, including those residing in camps or settlements, which asked about victimization due to physical violence. Descriptive statistics and weighted analysis techniques were utilized to estimate national lifetime prevalence and characteristics of physical violence against children.

Findings: About two-thirds of respondents reported having experienced physical violence during childhood (67.0%; 95% CI 63.4-70.4), the percentage being similar in males and females. More than one-third of 13-17 year old respondents were victimized in the 12 months prior to survey administration (37.8%; 95% CI 33.6-42.1). The majority of violence was committed by parents and teachers; and the perceived intent was often punishment or discipline. While virtually all (98.8%; 95% CI 98.0-99.3) victims of childhood physical violence were punched, kicked, whipped or beaten; 11.0% (95% CI 9.2-13.2) were subject to abuse by a knife or weapon. Injuries sustained from violence varied by victim gender and perpetrator, with twice as many females (9.6%; 95% CI 7.1-12.7) than males (4.0%; 95% CI 2.6-6.1) sustaining permanent injury or disfigurement by a family member or caregiver (p-value <.001).

Interpretation: Our findings suggest that physical violence against children in Haiti is common. Characterization of the frequency and nature of this violence provides baseline estimates to inform interventions.

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## Introduction

Physical violence against children by parents, caregivers and other authority figures is a major global public health problem.<sup>1-4</sup> The World Health Organization (WHO) defines physical violence as “the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation.”<sup>3</sup> While the nature of and attitudes towards physical violence are often rooted in cultural and societal norms, both the WHO 2002 *World Report on Violence and Health* and the United Nation’s 2006 *World Report on Violence Against Children* describe physical violence against children as a violation of human rights, ubiquitous across nations and across cultures.<sup>3,4</sup>

The 2002 *World Report on Violence and Health* articulated the scope of the problem and called for scientific evidence to inform policy and shape intervention efforts, while also highlighting the inadequacy of existing data to do so.<sup>3,5</sup> Once the extent and nature of violence is understood, risk factors can be identified, and interventions developed and implemented, a cycle followed by consistent surveillance.<sup>6</sup> In 2014 the World Health Assembly passed a resolution calling for strengthening the role of health systems in addressing violence, particularly that against women and children.<sup>7</sup>

## *Background/Rationale*

Haiti is reported to be the poorest country in the western hemisphere,<sup>8</sup> and has often been affected by political turmoil and social strife. Furthermore, it has been, and remains, a predominantly young nation: over one-third of its population is 15 years of age or younger.<sup>9</sup>

These factors increase the likelihood of violence and injury on a national level.<sup>6</sup> On January 10, 2010, Haiti was struck by a magnitude 7.0 earthquake, heightening its already existing economic, political, and social challenges.<sup>8, 10</sup> The earthquake affected over three million people and left an estimated 1.3-1.6 million Haitians internally displaced, including over 800,000 children.<sup>8, 11</sup> It plausibly heightened the risk of child exploitation and trafficking, in addition to increasing the baseline risk of physical violence and sexual abuse against children.<sup>12</sup> While there have been reports on sub-types of violence among specific populations in pre- or post-earthquake Haiti, there have been no widespread endeavors to quantify and understand violence on a national level in the country.<sup>13</sup>

The objectives of this study were to quantify the national prevalence of physical violence against children in Haiti by caregivers in the home and by public authority figures in the community, and to characterize that violence by mechanism, perceived intent, severity of injuries sustained, and perpetrator.

## Methods

### *Study design and participants*

Survey data were collected from a nationally representative household sample of 13-24 year old males and females in Haiti in January and February 2012. A three-stage cluster sample design was utilized and included both standard enumeration areas (SDEs) based on established geopolitical subdivisions and internally displaced persons (IDP) living in camps or settlements. SDEs were originally determined by the Institut Haitien de Statistique et d'Informatique in 2003 for the national census and were updated in 2011 after the earthquake. The IDP population was

determined by the Haiti Camp Coordination and Camp Management Cluster, a government organization set up to manage camps after the earthquake. Estimates of the population size were completed immediately preceding survey administration due to the frequent flux of displaced persons.

In stage one, 177 SDEs (the primary sampling unit) were selected using probability proportional to size. In stage two, a cluster of 35 households was randomly selected from each SDE. In each household selected, interviewers identified the head of the household and completed a list of all household members to determine survey eligibility. If more than one member of the household was eligible, the Kish method was utilized for random selection of one household member.<sup>14</sup> In stage three, one eligible respondent was randomly selected from each list and was administered the questionnaire. A split sample approach was used such that the survey for males was completed in different SDEs than for females. This enabled estimations of violence victimization by gender, and also helped maintain confidentiality of respondents. Extremely small SDEs (<50 households) were excluded to protect confidentiality. Also excluded were prisons, orphanages, and geographical segments without individuals ages 13-24. The head of household completed a short survey assessing socioeconomic conditions of the household.

Camps were also selected using probability proportional to size. No camp was larger than the sampling interval therefore no camp was selected twice. Camps, like SDEs, were randomly allocated to the male or female survey. After selection, large camps were split into smaller segments assuming constant density, which were then randomly enumerated. As with small SDEs, small camps were excluded to protect respondent confidentiality.

Eligible participants were 13-24 years of age and able to understand and speak Haitian Creole. Individuals were excluded if they had disabilities that prevented understanding, hearing, or responding to questions. No information linking the household or respondent to the completed survey was obtained. Verbal consent for respondents under 18 was obtained from the primary caregiver, defined as the individual accountable for the child's health and welfare, and verbal assent was obtained from the respondent. Verbal consent was obtained from adult respondents and emancipated minors. The survey introduction followed established WHO ethical and safety guidelines.<sup>15</sup> All respondents were provided a list of services for if and when they wanted assistance; and, when necessary, a direct referral to specific services was provided. The study protocol and survey were approved by the Centers for Disease Control and Prevention (CDC) and the Interuniversity Institute for Research and Development (INJURED) Institutional Review Boards. It was also approved by the Ministry of Public Health and the Population's National Ethics Committee in Haiti.

### *Survey design and administration*

All questions were initially based on surveys studying physical violence in other countries and were then modified for use in Haiti. A pilot study was completed in July 2011 to inform the survey proceedings regarding household approach, consent, and referral to services processes. In addition, the questionnaire was evaluated for cultural appropriateness, respondent burden, and overall utility. Modifications were made before final survey administration. The survey was administered in Haitian Creole by same-sex trained local interviewers. Interviews were completed in a private setting to ensure confidentiality.

The outcome of interest was childhood physical violence (CPV), defined as physical violence by any perpetrator that occurred *prior* to age 18. For each of four mechanism types, questions were asked for “parent, caregiver, adult relative, or another adult household member” as perpetrator and for “public authority figures who you should be able to trust” as perpetrator, providing a total of eight sets of questions specific to physical violence (Supplemental Table 1). For each question-set, the survey ascertained if that type of violence had ever occurred, the age it started, the age it most recently occurred, if it occurred in the last 12 months, if the “most recent” event was perceived with an intent to punish or discipline, and who—within the perpetrator category—committed acts of violence.

Details about injuries sustained were ascertained for each perpetrator category and across all four mechanism types by asking, “Among the experiences we just talked about when a [perpetrator] was physically violent towards you, please think about the experience that caused the most serious physical injury. Did this experience cause [injury]?” This was followed by categorized injuries requiring a binary response (yes/no), such that “the most serious” injury may be represented by more than one category. For example, a respondent may have chosen “yes” for both category A (cuts, scratches, bruises, etc.) and for category C (deep wounds, broken bones, etc.) because “the most serious” injury experienced caused physical sequela in both categories. Alternatively, the physical violence experience that caused the most serious injury may not be represented (e.g. a respondent chose “no” or “don’t know/declined to answer” for all).

*Statistical methods and analysis*

Due to the *a priori* hypothesis that males and females would have different experiences with CPV, male and female data were analyzed separately. Because “time at risk” for physical violence depends on the age, respondents 13-17 were analyzed and reported separately from respondents 18-24 for estimates of CPV for prevalence data. Twelve-month physical violence (occurring in the year prior to survey administration) was presented only for 13-17 year old respondents to avoid confounding by young adult violence (occurring after age 18).

Data were analyzed using survey-specific commands to accommodate sample weights and clustering. Linearized variance estimation was used for standard error estimates to provide confidence intervals for proportions. Descriptive statistics were completed and weighted Pearson  $\chi^2$  test for independence, corrected for the survey design with second order correction and converted to an F statistic,<sup>16</sup> was completed to evaluate differences between males and females. All analyses were completed with Stata version 12 (College Station, TX).

## Results:

### *Prevalence of physical violence against children in Haiti*

Sixty-four percent of survey respondents, representing over two-thirds (67.0%, 95% CI 63.4-70.4) of Haitians aged 13-24, experienced CPV by a family member/caregiver or public authority figure (Table 1). The prevalence was not significantly different between males and females (p-value .816). For both males and females, respondents 13-17 years of age reported more childhood physical violence than respondents 18-24, however it was statistically significant only among males (p-value .048). Among 13-17 year old respondents, the 12-month period prevalence was 37.8% (95% CI 33.6-42.1), similar among males (37.1; 95% CI 31.4-43.1) and

females (37.8%; 95% CI 33.6-42.1; p-value .746). Among 13-17 year old victims, about half were victimized in the past year (54.4%; 95% CI 49.6-59.1).

### *Characteristics of physical violence against children in Haiti*

Among Haitian victims of CPV, almost all were punched, kicked, whipped, or beaten with an object (Table 2; for age-stratified data, see Supplemental Tables 2-7). About one in eight males and one in nine females reported having a perpetrator use or threaten to use a knife or other weapon against them. Pooled across mechanism-type and perpetrator categories, approximately four of five perceived the *most recent* physical violence event during childhood to be an act of punishment or discipline (Table 2). When stratified by mechanism-type, there was a statistically significant difference between perceptions of intent by gender: females were twice as likely as males to report CPV with a perceived intent to punish or discipline in the three more severe mechanism categories (Figure 1).

CPV in Haiti was committed most frequently by members within the nuclear family, followed by aunts and uncles (Table 2). Same-sex physical violence was common within the home: fathers were more often reported as perpetrator by male victims (44.3% males vs. 35.1% females; p-value .010) and mothers were more often reported as perpetrator by female victims (49.7% females vs. 44.6% males; p-value .207). Among public authority figures the primary perpetrators reported by both male and female respondents were teachers. There was no same-sex predilection between teacher perpetrators and victims (p-value .387 male teachers; p-value .817 female teachers). CPV committed by other public authority figures (e.g. police, employers, religious leaders) was rarely reported, however boys were more frequently victims of abuse by

non-teacher male authority figures, compared to females (3.89%; 95% CI 2.6-5.7% vs. 1.14%; 0.49-2.61%).

Injuries sustained from physical violence varied by gender and by perpetrator, with three times more females than males reported sustaining “deep wounds, broken bones, broken teeth, blackened or charred skin” due to physical violence by a family member or caregiver (16.6%; 95% CI 12.8-21.3% vs. 5.5%; 95% CI 3.9-7.7%; p-value <0.001) and twice as many due to physical violence by a public authority figures (4.9%; 95% CI 2.4-9.8% vs. 2.4%; 95% CI 1.2-4.8%; p-value 0.150; Table 3). Additionally, almost twice as many females than males reported sustaining permanent injury or disfigurement due to physical violence by a family member or caregiver (p-value <0.001). The relative differences between female and male victim injury patterns were not as pronounced among less severe injury categories.

## Discussion

Physical violence against children in Haiti was common: an estimated two-thirds of the nation's children were victimized before 18 years of age and one-third of all children 13 to 17 reported being a victim of physical violence in the past year. The violence primarily involved punching, kicking, whipping, and beating; however ‘more severe’ forms were also prevalent. The majority of children perceived the intent of physical violence against them as punishment or discipline, and while mothers and fathers were the most common perpetrators, aunts, uncles, and teachers also played a role. Haitian children sustained a variety of injuries from physical violence, and girls carried a disproportionate amount of the most severe injury burden.

In this study, a higher proportion of survey respondents 13-17 years of age reported CPV compared to those 18-24, despite less total time “at risk.” One possible explanation for this finding was the 2010 earthquake, which occurred two years prior to survey administration. Disaster settings and situations of unrest or conflict have been shown to increase the prevalence of violence, particularly among displaced persons, children, and women.<sup>4, 5, 10, 17</sup>

Our study found a difference between male and female injury burden related to CPV in the more severe injury categories, particularly at the hands of family member/caregiver perpetrators. While Gumbs et al found males were at higher risk for abusive head trauma in a military cohort,<sup>18</sup> gender differences were not consistently found among *acute injury patterns* in victims of CPV.<sup>19, 20</sup> This was not the case for long-term health consequences, in which women with a history of CPV were more likely than men to report physical and mental health sequela.<sup>21</sup>

The lack of gender differences in prevalence of CPV stands in contrast to Akmatov’s meta-analysis of the Multiple Indicator Cluster Surveys (MICS) including 28 developing and transitional countries and a total of 124,916 children, which reported males were about 20% more likely to be victims of moderate and severe abuse, compared to females.<sup>2</sup> Stoltenborgh and colleagues’ meta-analysis of global prevalence of CPV, on the other hand, found no gender differences in pooled analyses.<sup>22</sup>

While the majority of injuries reported in our study were minor, it is important to note less severe injury patterns may precede episodes of violence that give rise to more severe injury. In a case-control study, Sheets et al found that 27.5% of children less than 12 months of age who were

victims of physical abuse that were evaluated in a hospital-based setting had previous sentinel injury, compared to only 8% of control children.<sup>23</sup> Additionally, Deans et al found “superficial injury” to also be an independent risk factor for recurrent abuse.<sup>24</sup>

Our study’s findings are consistent with those obtained in methodologically similar studies completed in Sub-Saharan Africa by the CDC and in-country partners. VACS in five countries (Cambodia, Kenya, Malawi, Tanzania, and Zimbabwe) found that the lifetime prevalence of CPV ranged from 42-66% in girls, and 53-76% in boys.<sup>25-27</sup>

The literature on physical violence indicates overlap with that on child abuse and corporal punishment. While corporal punishment is a common method of discipline, especially in some sociocultural contexts, many consider it to be a form of child abuse. Runyan et al examined surveys in India, Egypt, the Philippines, Chile, Brazil, and the United States (US) and found overall 12-month prevalence of moderate physical discipline ranged from 55-89%, harsh physical discipline (without hitting with an object) from 1-39%, and harsh physical discipline (including hitting with an object) from 9.1-74%.<sup>1, 28</sup>

There were several limitations in this study. There was the risk of inaccurate and/or under-reporting, particularly due to the sensitivity of material. Telescoping and recall bias were possible (older respondents may remember less accurately events that occurred to them as a young child). Also, the survey structure limited the correlation between variables of interest. For example, perceived intent was asked of the most recent physical violence event (irrespective of the age of the respondent), while perpetrator details were asked about all experiences prior to 18.

Thus it remains unknown how children perceived physical violence events differently depending on the perpetrator. Also, injury severity details were asked across all mechanism-types, such that we were unable to draw conclusions on what type of perpetrator causes, and what type of physical violence mechanisms lead to, the most severe injuries sustained by children. This information could conceivably inform intervention and prevention efforts by shaping which perpetrators are targeted, and how.

This study had many strengths. It was the first study with a nationally representative sample, such that the estimates reflect the burden of physical violence against children in the entire country of Haiti, including urban, rural, and camp populations. The survey was also comprehensive, ascertaining details of physical violence events that have not been reported to date.

### *Research into Context*

It was only two generations since publication of Kempe's article that began the era of conscious efforts to identify, treat, and prevent child maltreatment in the US.<sup>29</sup> Fifty years later, we have made progress but maltreatment is still confirmed for an estimated 1 in 8 US children by 18 years of age.<sup>30</sup> We believe that this study can provide the starting point for a comprehensive program to address child abuse in Haiti, as Kempe's study did for the US. This study provides the first nationwide estimates of physical violence in Haiti, the characterization of which has the potential to inform future interventions and prevention efforts, and act as baseline risk estimates by which to monitor their impact.

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Table 1: History of childhood physical violence (CPV) before age 18 reported by Haitian children and young adults, by sex and age of respondents

	<b>Total</b>		<b>Females</b>		<b>Males</b>	
	<b>n</b>	<b>weighted % (95% CI)</b>	<b>n</b>	<b>weighted % (95% CI)</b>	<b>n</b>	<b>weighted % (95% CI)</b>
<b>Total lifetime CPV</b>	1863	67.0 (63.4-70.4)	918	67.4 (62.3-72.2)	945	66.6 (61.3-71.4)
13-17 year old respondents (n = 1391)	966	69.9 (65.7-73.8)	427	69.4 (63.5-74.7)	539	70.3 (64.3-75.8)
18-24 year old respondents (n = 1519)	897	64.6 (60.0-68.9)	491	65.8 (59.4-71.7)	406	63.3 (56.8-69.4)
<b>12-month CPV among all 13-17 year old respondents</b>	521	37.8 (33.6-42.1)	249	38.4 (32.6-44.6)	272	37.1 (31.4-43.1)
<b>12-month CPV among 13-17 year old CPV victims</b>	521	54.4 (49.6-59.1)	249	55.5 (48.8-62.1)	272	53.3 (46.6-59.8)

Table 2: Characteristics related to the mechanism, intent, and perpetrator of physical violence among Haitian victims of childhood physical violence (CPV), by sex

\*p-value < 0.05\*

\*\*p-value < 0.01\*

	<b>Total weighted % (95% CI)</b>	<b>Females weighted % (95% CI)</b>	<b>Males weighted % (95% CI)</b>
	<b>n = 1863</b>	<b>n = 918</b>	<b>n = 945</b>
<b>Mechanism of CPV<sup>†</sup></b>			
Punch, kick, whip, or beaten	98.8 (98.0-99.3)	98.8 (97.3-99.6)	98.9 (97.8-99.4)
Choke, smother, or try to drown	6.2 (4.7-8.1)	4.7 (3.0-7.1)	7.7 (5.3-10.9)
Burn or scald intentionally	3.2 (2.0-5.2)	2.6 (1.6-4.2)	3.9 (1.9-7.8)
Use or threaten to use a knife or weapon (against you)	11.0 (9.2-13.2)	10.1 (7.9-13.0)	12.0 (9.2-15.3)
<b>Perceived intent of most recent CPV‡ reported as punishment or discipline</b>	79.0 (76.2-81.4)	78.1 (74.5-81.3)	79.8 (75.6-83.5)
<b>Perpetrators of CPV<sup>†</sup></b>			
Male family member, caregiver, or adult relative	53.8 (42.7-49.8)	50.2 (45.9-54.6)	57.4 (51.5-63.2)
Father	39.7 (36.4-43.1)	35.1** (30.8-39.8)	44.3** (39.3-49.5)
Other	23.5 (20.9-27.0)	21.1 (17.3-25.5)	26.0 (21.1-31.4)
Female family member, caregiver, or adult relative	60.1 (55.7-64.5)	65.0* (59.4-70.3)	55.2* (48.6-61.6)
Mother	47.2 (43.4-50.9)	49.7 (44.6-54.9)	44.6 (38.98-50.28)
Other	23.4 (20.2-26.9)	24.0 (19.7-28.8)	22.8 (18.2-28.1)
Male public authority figure	28.4 (24.3-32.7)	29.3 (23.5-35.9)	27.4 (22.3-33.1)
Male teacher	26.5 (22.3-31.0)	28.3 (22.4-35.0)	24.6 (19.4-30.7)
Other	2.50 (1.7-3.6)	1.1** (.49-2.6)	3.9** (2.6-5.7)
Female public authority figure	10.6 (8.3-13.4)	10.4 (7.4-14.5)	10.7 (7.6-15.0)
Female teacher	10.2 (7.9-13.0)	9.9 (7.0-13.8)	10.5 (7.3-14.7)
Other	.39 (.12-1.2)	.54 (.12-2.4)	.23 (0-1.01)

\* P-values represent weighted F test statistic for independence between sexes

† Weighted percents do not add to 100% because categories are not mutually exclusive  
‡ Most recent event prior to 18 years of age, pooled across all mechanism types and across perpetrator category (family member/caregiver and public authority figure)

Table 3: Most severe injury\* as reported by Haitian victims of childhood physical violence† due to family members/caregivers and public authority figures, by sex

\*\*p-value < 0.01‡

\*\*\*p-value < 0.001‡

	<b>Total weighted % (95% CI)</b>	<b>Females weighted % (95% CI)</b>	<b>Males weighted % (95% CI)</b>
<b>Injuries by family members or caregivers</b>	<b>n = 1768</b>	<b>n = 862</b>	<b>n = 906</b>
Cuts, scratches, bruises, aches, redness, swelling, other minor marks	57.9 (54.0-61.8)	63.4** (57.7-68.7)	52.5** (47.5-57.3)
Sprains, dislocations or blistering skin	14.1 (11.8-16.7)	14.7 (11.4-18.6)	13.5 (10.6-17.0)
Deep wounds, broken bones, broken teeth, blacked or charred skin	11.0 (8.6-14.0)	16.6*** (12.8-21.3)	5.5*** (3.9-7.7)
Permanent injury or disfigurement	6.8 (5.2-8.8)	9.6*** (7.1-12.7)	4.0*** (2.6-6.1)
<b>Injuries by public authority figures</b>	<b>n = 649</b>	<b>n = 305</b>	<b>n = 344</b>
Cuts, scratches, bruises, aches, redness, swelling, other minor marks	48.4 (42.6-54.2)	51.6 (43.5-59.6)	45.2 (37.1-53.5)
Sprains, dislocations or blistering skin	11.1 (8.3-14.8)	9.6 (6.0-14.9)	12.7 (8.7-18.2)
Deep wounds, broken bones, broken teeth, blacked or charred skin	3.7 (2.1-6.2)	4.9 (2.4-9.8)	2.4 (1.2-4.8)
Permanent injury or disfigurement	.83 (.37-1.8)	.43 (.10-1.8)	1.2 (.47-3.2)

\* Severity of injury includes all episodes of injury, including those which may have occurred after 18 years of age, in survey respondents who were victims of physical violence before 18. Estimates may not add up to 100% as categories are not mutually exclusive or exhaustive

† Includes data for all respondents who were victims of physical violence of any mechanism type starting prior to 18 years of age and for whom severity of injury was known and reported

‡ P-values represent weighted F test statistic for independence between sexes

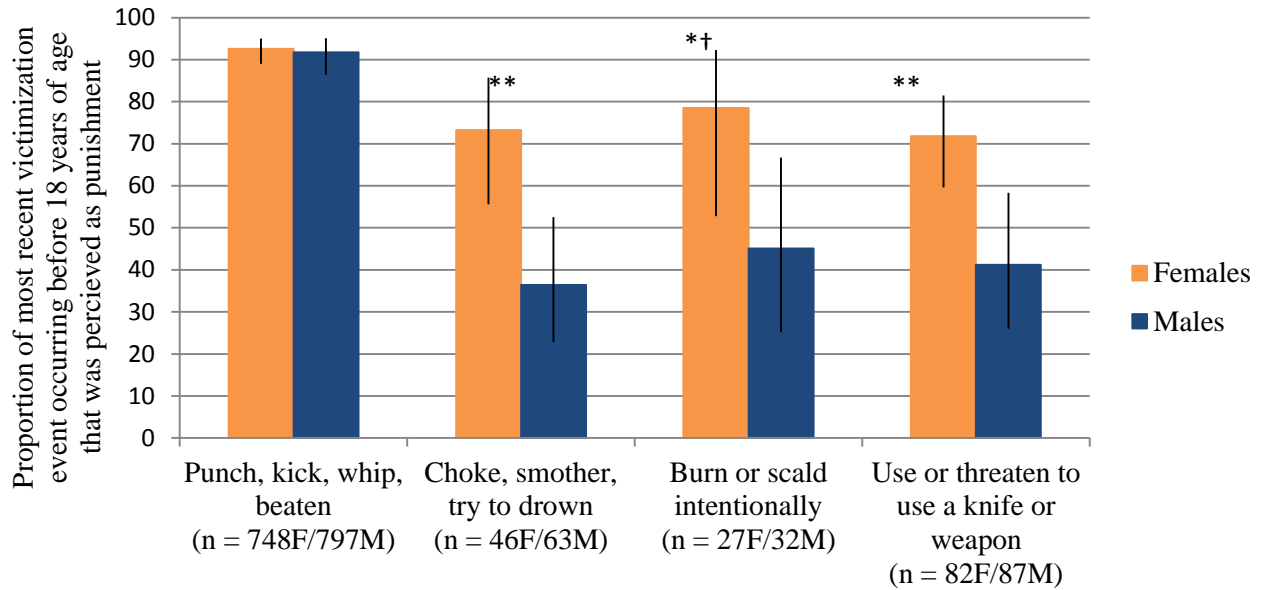


Figure 1: Proportion of most recent childhood physical violence even, occurring prior to 18 years of age, perceived as punishment or discipline by mechanism of injury category and sex of respondent

\* p-value <.05\*

\*\* p-value <.01\*

\* p-values represent weighted F test statistic for independence between sexes

† All observations occurring within the same strata; un-weighted Pearson chi2 presented

**Supplemental Table 1: Survey questions targeting mechanism(s) of physical violence against children, each one asked for (1) parents, caregivers, and adult relatives, and for (2) public authority figures (not shown)**

Has/did a parent, caregiver, any adult relative, or another adult household member ever punch you, kick you, whip you, or beat you with an object?
Has/did a parent, caregiver, any adult relative, or another adult household member ever choke you, smother you, or try to drown you?
Has/did a parent, caregiver, any adult relative, or another adult household member ever burn or scald you intentionally (including putting a hot pepper in your mouth or on another body part)?
Has/did a parent, caregiver, any adult relative, or another adult household member ever use or threaten to use a knife or other weapon against you?

**Supplemental Table 2: Characteristics related to the mechanism of physical violence, intent of physical violence, and the perpetrator of physical violence sustained by Haitian girls and young women, by age category**

	<b>13-17 years</b> <b>n = 427</b>		<b>18-24 years</b> <b>n = 491</b>	
	n	weighted % (95% CI)	n	weighted % (95% CI)
<b>Mechanism of childhood physical violence*</b>				
Punch, kick, whip, or beaten	420	98.24 (95.43-99.34)	489	99.23 (98.10-99.69)
by family member	396	31.72 (87.04-94.80)	449	94.09 (91.23-96.06)
by public authority member	147	34.79 (27.89-42.39)	154	35.06 (26.61-44.56)
Choke, smother, or try to drown	32	5.95 (3.64-9.57)	21	3.52 (2.04-6.02)
by family member	32	5.95 (3.64-9.57)	19	3.21 (1.81-5.63)
by public authority member	0	.00	2	0.31 (.00-1.79)
Burn or scald intentionally	17	3.45 (1.76-6.67)	13	1.80 (.87-3.7)
by family member	17	3.45 (1.76-6.67)	13	1.80 (.87-3.7)
by public authority member	0	0	0	0
Use or threaten to use a knife or weapon (against you)	59	14.37 (10.94-18.64)	39	6.44 (4.06-10.09)
by family member	59	14.37 (10.94-18.64)	36	6.03 (3.90-9.22)
by public authority member	1	0	3	0.41 (0.01-1.65)
<b>Perceived intent of most recent physical violence† reported as punishment or discipline</b>	361	83.68 (77.42-88.46)	350	73.25 (67.94-77.96)
<b>Perpetrators of childhood physical violence</b>				
Male family member, caregiver, or adult relative	199	45.41 (39.15-51.83)	268	54.39 (48.5-30.16)
Father	130	32.68 (26.81-39.15)	184	37.26 (31.43-43.49)
Other	95	18.96 (14.43-24.51)	117	22.94 (17.25-29.84)
Female family member, caregiver, or adult relative	285	64.58 (57.79-70.84)	318	65.4 (58.35-71.83)
Mother	210	47.34	251	51.82

		(41.01-53.76)		(44.92-58.65)
Other	108	23.87 (19.12-29.36)	112	24.05 (18.18-31.09)
Male public authority figure	108	27.94 (22.35-34.31)	138	30.49 (23.02-39.15)
Male teacher	105	26.85 (21.0-33.64)	132	29.5 (21.94-38.39)
Other	3	1.09 (.24-4.79)	7	1.18 (.44-3.14)
Female public authority figure	46	11.84 (7.68-17.84)	43	9.21 (6.14-13.6)
Female teacher	44	10.73 (6.59-17.00)	42	9.17 (6.10-13.56)
Other	2	1.11 (0.24-5.07)	1	.00 (.00-.30)

\* Raw numbers within each category may be greater than category total, and weighted % may be greater than 100%, because perpetrator categories are not mutually exclusive.

† Most recent event prior to 18 years of age, pooled across all mechanism types and across perpetrator category (family member/caregiver and public authority figure).

**Supplemental Table 3: Most severe\* injury as reported by Haitian female victims of childhood physical violence† due to family members/caregivers and public authority figures, by age category**

	<b>13-17 years n = 404</b>		<b>18-24 years n = 458</b>	
<b>Injuries by family members or caregivers within the home</b>	<b>n</b>	<b>weighted % (95% CI)</b>	<b>n</b>	<b>weighted % (95% CI)</b>
Cuts, scratches, bruises, aches, redness, swelling, other minor marks	243	60.17 (52.86-67.05)	295	66.2 (59.5-72.3)
Sprains, dislocations or blistering skin	56	15.49 (10.22-22.78)	64	13.94 (10.16-18.83)
Deep wounds, broken bones, broken teeth, or blacked or charred skin	51	14.19 (9.44-20.79)	72	18.72 (13.89-24.74)
Permanent injury or disfigurement	35	9.65 (5.91-15.36)	40	9.48 (6.96-12.79)
<b>Injuries by public authority figures</b>	<b>n = 147</b>		<b>n = 158</b>	
Cuts, scratches, bruises, aches, redness, swelling, other minor marks	78	55.27 (45.33-64.81)	75	48.35 (37.57-59.3)
Sprains, dislocations or blistering skin	23	12.10 (6.71-20.86)	12	7.35 (3.43-15.04)
Deep wounds, broken bones, broken teeth, or blacked or charred skin	9	6.18 (1.93-18.09)	9	3.71 (1.64-8.21)
Permanent injury or disfigurement	1	0.30 (.00-2.20)	1	0.55 (0.0-3.72)

\* Severity of injury includes all episodes of injury, including those which may have occurred after 18 years of age, in survey respondents who were victims of physical violence before 18. Estimates may not add up to 100% as categories are not mutually exclusive or exhaustive

† Includes data for all respondents who were victims of physical violence of any mechanism type starting prior to 18 years of age for whom severity of injury was known and reported

**Supplemental Table 4: Proportion of most recent childhood physical violence perceived as punishment or discipline for each mechanism category among females victims of childhood physical violence, by age category**

	<b>13-17 years weighted % (95% CI)</b>	<b>18-24 years weighted % (95% CI)</b>
Punch, kick, whip, beaten (n = 748: 382, 13-17y; 366, 18-24y)	90.76 (84.8-94.53)	94.41 (90.95-96.59)
Choke, smother, try to drown (n = 46: 30, 13-17y; 16, 18-24y)	79.63 (60.47-90.9)	63.05 (34.24-84.83)
Burn or scald intentionally (n = 27: 14, 13-17y; 13, 18-24y)	71.33 (37.62-91.12)	89.21 (63.85-97.48)
Use or threaten to use a knife or weapon (n = 82: 53, 13-17y; 29, 18-24y)	72.19 (54.45-84.93)	70.9 (53.9-83.54)

**Supplemental Table 5: Characteristics related to the mechanism of physical violence, intent of physical violence, and the perpetrator of physical violence sustained by Haitian boys and young men, by age category**

	13-17 years		18-24 years	
	n = 539		n = 406	
	n	weighted % (95% CI)	n	weighted % (95% CI)
<b>Mechanism of childhood physical violence*</b>				
Punch, kick, whip, or beaten	532	98.62 (96.58-99.45)	399	99.05 (97.93-99.57)
by family member	513	96.13 (93.81-97.6)	379	95.12 (92.38-96.91)
by public authority member	205	35.8 (27.95-44.48)	129	35.14 (28.04-42.97)
Choke, smother, or try to drown	41	7.81 (5.07-11.85)	30	7.51 (4.50-12.28)
by family member	38	7.41 (4.7-11.51)	29	7.40 (4.44-12.1)
by public authority member	4	.40 (.10-1.52)	2	.23 (0-.97)
Burn or scald intentionally	17	2.78 (1.63-4.70)	19	4.99 (2.03-11.76)
by family member	15	2.43 (1.37-4.27)	19	4.99 (2.03-11.76)
by public authority member	2	.35 (.00-1.57)	1	.10 (.00-.75)
Use or threaten to use a knife or weapon (against you)	57	11.40 (7.96-16.07)	55	87.50 (82.56-91.19)
by family member	51	10.58 (7.14-15.41)	44	9.89 (6.77-14.23)
by public authority member	11	2.12 (1.00-4.42)	17	3.94 (2.26-6.77)
<b>Perceived intent of most recent physical violence<sup>†</sup> reported as punishment or discipline</b>	445	79.75 (71.58-86.03)	312	79.87 (74.68-84.21)
<b>Perpetrators of childhood physical violence</b>				
Male family member, care giver, or adult relative	288	53.49 (44.87-61.91)	242	61.16 (55.74-66.32)
Father	220	40.95 (33.91-48.39)	185	47.56 (42.01-53.17)
Other	138	24.76 (18.84-31.81)	106	27.12 (21.49-33.59)
Female family member, care giver, or adult relative	303	51.24 (43.34-59.07)	231	59.00 (52.3-65.38)
Mother	245	39.7 (33.47-46.29)	194	49.23 (43.1-55.37)
Other	128	22.2 (17.17-28.19)	79	23.30 (17.39-30.49)
Male authority figure	158	24.39 (19.61-29.9)	116	30.25 (24.35-36.88)
Teacher	146	22.31 (17.43-28.1)	100	26.80 (20.9-33.65)
Other	20	3.45 (2.06-5.74)	20	4.30 (2.62-6.99)
Female authority figure	55	8.34 (5.89-11.7)	46	12.95 (8.46-19.32)
Teacher	54	8.03 (5.62-11.34)	45	12.81 (8.32-19.2)
Other	1	0.32 (.00-2.29)	1	0.15(.00-1.07)

\* Raw numbers within each category may be greater than category total, and weighted % may be greater than 100%, because perpetrator categories are not mutually exclusive.

† Most recent event prior to 18 years of age, pooled across all mechanism types and across perpetrator category (family member/caregiver and public authority figure).

**Supplemental Table 7: Most severe\* injury as reported by Haitian male victims of childhood physical violence† due to family members/caregivers and public authority figures, by age category**

	<b>13-17</b>		<b>18-24</b>	
	<b>n = 520</b>		<b>n = 386</b>	
<b>Injuries by family members or caregivers within the home</b>	<b>n</b>	<b>weighted % (95% CI)</b>	<b>n</b>	<b>weighted % (95% CI)</b>
Cuts, scratches, bruises, aches, redness or swelling or other minor marks	272	49.34 (43.29-55.4)	208	55.51 (48.86-61.97)
Sprains, dislocations or blistering of the skin	64	12.04 (9.22-15.57)	65	14.88 (11.01-19.79)
Deep wounds, broken bones, broken teeth, or blacked or charred skin	33	4.66 (3.01-7.15)	29	6.28 (3.88-9.99)
Permanent injury or disfigurement	23	3.36 (1.89-5.91)	23	4.6 (2.53-8.2)
<b>Injuries by public authority figures</b>	<b>n = 208</b>		<b>n = 136</b>	
Cuts, scratches, bruises, aches, redness or swelling or other minor marks	96	45.86 (37.41-54.54)	62	44.47 (32.74-56.84)
Sprains, dislocations or blistering of the skin	30	13.53 (8.15-21.64)	15	11.88 (6.35-21.13)
Deep wounds, broken bones, broken teeth, or blacked or charred skin	7	2.41 (1.01-5.46)	6	2.46 (.93-6.36)
Permanent injury or disfigurement	4	.81 (.20-3.25)	4	1.65 (.50-5.33)

\* Severity of injury includes all episodes of injury, including those which may have occurred after 18 years of age, in survey respondents who were victims of physical violence before 18. Estimates may not add up to 100% as categories are not mutually exclusive or exhaustive

† Includes data for all respondents who were victims of physical violence of any mechanism type starting prior to 18 years of age for whom severity of injury was known and reported

**Supplemental Table 8: Proportion of most recent childhood physical violence perceived as punishment or discipline for each mechanism category among male victims of childhood physical violence, by age category**

	<b>13-17 years weighted % (95% CI)</b>	<b>18-24 years weighted % (95% CI)</b>
Punch, kick, whip, beaten (n = 797, 477 13-17y, 320 18-24y)	88.52 (77.52-94.52)	95.11 (91.47-97.42)
Choke, smother, try to drown (n = 63, 35 13-17y, 28 18-24y)	29.65 (12.41-55.63)	42.8 (24.68-63.09)
Burn or scald intentionally (n = 32, 15 13-17y, 17 18-24y)	37.26 (14.68-67.20)	50.57 (24.31-76.52)
Use or threaten to use a knife or weapon (n = 87, 47 13-17y, 40 18-24y)	39.88 (20.61-62.89)	42.50 (24.56-62.66)