



Alliance for
Child Protection in
Humanitarian Action

MEASURING SEPARATION IN EMERGENCIES

A population-based estimation in Haiti following Hurricane Matthew



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The work reported here was coordinated and managed by Save the Children. Columbia University is the intellectual and methodological lead on the population-based estimation approach. The pilot was conducted in collaboration with Save the Children International in Haiti.

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ABBREVIATIONS

CPWG	Child Protection Working Group
DRC	Democratic Republic of Congo
MSiE	Measuring Separation in Emergencies
UASC	Unaccompanied and separated children

EXECUTIVE SUMMARY

Families are the basic protective unit for children in society and, in almost all cases, provide the best environment for meeting a child's developmental needs. The separation of children from their families is one of the most significant impacts that humanitarian crises have on individuals' lives worldwide. Identifying safe and supportive interim care for children, and carrying out family tracing and reunification activities to reunite them with their family following a rapid-onset emergency, are two of the most significant protective and psychological interventions that humanitarian actors can carry out during an emergency.

Background to Measuring Separation in Emergencies

The Measuring Separation in Emergencies (MSiE) project is an interagency initiative under the Alliance for Child Protection in Humanitarian Action, funded by the USAID Office of Foreign Disaster Assistance (OFDA) and coordinated by Save the Children in partnership with Columbia University. The overall aim of the MSiE project is to strengthen emergency response programmes for unaccompanied and separated children (UASC) through the development of practical, field-tested approaches to enhance the assessment of the scale and nature of separation in emergencies.

To address this gap in data on UASC, in 2014 the Assessment and Measurement Task Force of the Global Child Protection Working Group (CPWG)¹ launched an interagency initiative to develop a project to generate rigorous statistics about UASC across a range of emergency settings. The project had several components each of which had specific methods to measure separation. Three components were initially explored with a fourth component, the residential care approach, being included following the initial pilots in 2014:

1. **Projection approach** aims to use existing population data from a given location, combined with empirical data from comparable emergencies, to generate models of UASC risk profiles characteristic of certain emergency types and phases, and to test or validate those projections against actual data in existing or evolving emergencies.
2. **Population-based estimation approach** aims to provide a population-based estimation of the prevalence, number and basic characteristics of UASC in a defined area, affected by the same emergency, at any given point in time.
3. **Community-based monitoring approach** incorporates a community-based monitoring system capable of continuous, ongoing measurement of trends in the frequency and basic characteristics of UASC in defined areas over time.

¹ Later renamed the Assessment, Measurement and Evidence Working Group upon transition from the CPWG to the Alliance for Child Protection in Humanitarian Action in 2016.



4. **Residential care approach** is designed to capture the scale of movements of children into residential care facilities as a result of an emergency.

This report focuses primarily on the population-based estimation approach, developed by Columbia University, and the field-testing of this approach in the Sud Department of Haiti from February to March 2017. The Save the Children International office in Haiti hosted the pilot research.

Sampling and methodology

Sampling was achieved via a two-stage cluster design. Assuming precision of 1.5% and a response rate of 100%, it was estimated that the study would need 35 clusters of 23 households per cluster to detect a 5% prevalence of separation in a population of 775,000 people (the population of the Sud Department). The sample was increased to 28 households per cluster to achieve adequate power with an expected household response rate of 80%. In other words, it was assumed that 20% of households would choose not to participate, would be empty at the time of visit, or would not include anyone above the age of 18.

For the first stage, clusters were selected at the section level using the probability proportionate to size (PPS) method. PPS calculations were based on 2015 population estimate data from the Haitian Institut de Statistique et d'Informatique,

which included estimates for each of the 69 sections within the 18 communes of Sud. For the second stage, houses within each cluster were selected via systematic random sampling. Using Google Earth satellite images, areas of 90–150 households within each cluster were randomly chosen and all households in the selected area were numbered. A sampling interval m was determined by dividing the total number of households in the selected area by 28. A random number between 1 and the sampling interval value was used to select the first household. Each following household (depending on the day and the number of households in each location) was selected in a systematic fashion using the sampling interval m (ie, every 4th house with an interval of 4) to achieve a sample that was distributed across the full area of households.

Two teams of eight data collectors were trained and visited households over the course of four weeks. At each household, the enumerator would speak with the female head of household or, if necessary, another adult. Respondents consented to participate and were then asked about the individuals living in their household and those who had left since the hurricane, with a particular emphasis on whether any children had a change in caregiver in that time. Respondents were also asked about the composition of their neighbour's home.

In a small number of households, secondary adult respondents were interviewed to compare their answers with the female head of household.

Findings

The findings from Haiti have important implications for child protection programming following natural disasters. The primary outcome of interest was the prevalence of unaccompanied and separated children in the Sud Department in the 5-month period following Hurricane Matthew. A total of 1,044 primary households were surveyed. The sample of households totalled 1,175, giving a response rate of 88.5%.

Out of a total of 2,046 children living in the surveyed households at the time of data collection, 3.03% ($n=62$) had been separated following Hurricane Matthew, meaning they had either arrived in the household after the emergency or experienced a change in caregiver during this time. The low levels of separation in Haiti illustrate families' capacity for resilience in this specific setting. Overall, the findings emphasise the importance of collecting population-based data about local separation patterns whenever possible and avoiding the use of unproven 'rules of thumb' to generalise about separation in a given situation. Future iterations of this approach will contribute to an improved global understanding of how the complex patterns and drivers of separation vary according to different emergency typologies.

The lessons learned and recommendations as a result of piloting the population-based estimation approach in Haiti include:

- To the extent possible, conduct the population-based estimation across as much of the emergency-affected area as possible.
- Although the neighbourhood method produced inconclusive results in the Democratic Republic of Congo (DRC) and Haiti, continue to pilot the neighbourhood method in additional settings.
- Electronic data collection saves time and improves data quality compared with paper data collection and therefore should be used whenever appropriate resources are available.

BACKGROUND

Families are the basic protective unit for children in society and, in almost all cases, provide the best environment for meeting a child's developmental needs. The separation of children from their families is one of the most significant impacts that humanitarian crises have on individuals' lives worldwide. Separation may occur accidentally as a consequence of the emergency, for instance during sudden displacement, or deliberately when adults are forced to make difficult decisions about what they feel is in the best interests of their family. Separation may also occur by force, such as in abduction, trafficking or forced recruitment. In addition, the actions of humanitarian organisations themselves can unintentionally result in separation, for example, during medical evacuations. Secondary separation, for example from an interim caregiver, may also occur when the capacity of caregivers to cope is eroded over time.

The family is central to protecting the child from threats and risks, and in providing an environment to support the healthy development of the child. An unaccompanied² or separated³ child is therefore vulnerable and at greater risk of violence, abuse, exploitation or neglect. Identifying safe and supportive interim care for children, and carrying out family tracing and reunification activities to reunite them with their family following a rapid-onset emergency, are two of the most significant protective and psychological interventions that humanitarian actors can carry out during an emergency. Yet despite investments in service provision, there are no known tools or approaches to determine a representative estimate of the number of unaccompanied and separated children (UASC) in a given humanitarian emergency. Without a sense of how many children are separated, practitioners must rely on a mix of generalised assumptions and selective information to design and target their activities. In addition, advocates for separated children are limited in their ability to secure funding, as they cannot provide donors with accurate information on the scale of the problem.

The rule of thumb used by most child protection actors is that separated children comprise approximately 3–5% of the displaced population in an emergency context. This estimate was developed in the 1980s based on a review of separation in nine humanitarian crises in the 20th century, but it has not been tested against the full range of variables since that time.⁴ In addition, the Child Protection Rapid Assessment (CPRA) Toolkit was designed to gather context-specific information

² Unaccompanied children (also referred to as unaccompanied minors) are children, as per the definition in the Interagency Guiding Principles of Unaccompanied and Separated Children, who have been separated from both parents and other relatives and are not being cared for by an adult who, by law or custom, is responsible for doing so.

³ Separated children are children, as per the definition in the Interagency Guiding Principles of Unaccompanied and Separated Children, who have been separated from both parents, or from their previous legal or customary primary caregiver, but not necessarily from other relatives. These may, therefore, include children accompanied by other adult family members.

⁴ Ressler E, Boothby N, Steinbock D (1988)

on a range of child protection issues, including UASC six to eight weeks following an emergency event. However, the CPRA produces qualitative data that is not representative of an entire affected area.

To address this gap in representative, population-based quantitative data on UASC, in 2014 the Assessment and Measurement Task Force of the Global Child Protection Working Group (CPWG)⁵ launched an interagency initiative to develop a project that had several components, each of which had a core set of methods to generate rigorous statistics about UASC across a range of emergency settings. Through a close partnership with an Advisory Panel composed of practitioners, policymakers and donors, researchers from Columbia University in New York led a thoughtful study design process that culminated in the recommendation to pilot a household survey to measure the prevalence of separated children in an emergency setting. The survey was first tested in the eastern Democratic Republic of Congo (DRC) in 2014.

Following the completion of the DRC study, a number of key questions and areas for improvement were identified. Most importantly, the Advisory Panel and the research team concluded that the differences between chronic emergency situations, such as the conflict-affected eastern DRC, and rapid-onset emergencies, such as natural disasters, necessitated a second pilot of the survey in a rapid-onset emergency. Furthermore, questions remained around how to refine the household questionnaire to detect specific groups of children not captured in the DRC survey, such as children separated from their caregivers in an emergency but who do not change households as a result of that separation.

Finally, challenges in data entry and analysis during the first pilot motivated the methodologists to re-evaluate the structure of the tool with the aim of improving efficiency and collecting rapid findings. Subsequent updates to the tools and procedures led to the present study, the first known population-based estimation of the prevalence of UASC in a natural disaster setting.

⁵ See previous note on the transition.

INTRODUCTION

The Measuring Separation in Emergencies (MSiE) project is an interagency initiative under the Alliance for Child Protection in Humanitarian Action funded by the USAID Office of Foreign Disaster Assistance (OFDA) and coordinated by Save the Children in partnership with Columbia University. The project is steered by an interagency Advisory Panel, including members of the Inter-agency Working Group on Unaccompanied and Separated Children and the Assessment, Measurement and Evidence Working Group of the Alliance for Child Protection in Humanitarian Action. The overall aim of the MSiE project is to strengthen emergency response programmes for unaccompanied and separated children (UASC) through the development of practical, field-tested approaches to enhance the assessment of the scale and nature of separation in emergencies.

The humanitarian community has significant experience and expertise in working with unaccompanied and separated children (UASC). However, the lack of robust data available on UASC in emergencies makes it extremely difficult to:

- generate adequate and timely funding
- design and implement appropriate programmes
- strengthen relevant child protection systems and influence national and international policies and laws relating to separation.

Save the Children, Columbia University and members of the interagency Advisory Panel have worked together to pilot tools that can more effectively measure separation in emergencies. The aim is to strengthen emergency response programming for UASC through the development of practical, operationally sound approaches that can be used in most emergency contexts to generate robust measurement and assessment of the scale and nature of separation. At the project outset, a set of four key questions (for all stages of an emergency) provided a broad framework for discussion on the required focus of these new approaches to measurement:

1. How many UASC are there?
2. Where are UASC now, where have they come from, where are they going?
3. What are the causes of separation, which children are most vulnerable to them and why?
4. What are the main needs of UASC? What protection risks are they facing?

Informed by desk research and consultation with a range of stakeholders, technical child protection input from the Advisory Panel members, and guidance on appropriate methodologies from Columbia University, consensus was gained at a 'Methodology Kick-Off Workshop' on the methodological approaches to be explored. Participants agreed that the priority would be to focus on the estimation or enumeration of UASC, but that more qualitative questions (for example, the

causes of separation and the needs of UASC) would also be addressed where, and to the extent, feasible. Three approaches were initially explored with a fourth approach, the residential care approach, being included following the initial pilots in 2014:

1. **Projection approach** aims to use existing population data from a given location, combined with empirical data from comparable emergencies, to generate models of UASC risk profiles characteristic of certain emergency types and phases and to test or validate those projections against actual data in existing or evolving emergencies.
2. **Population-based estimation approach** aims to provide a population-based estimation of the prevalence, number and basic characteristics of UASC in a defined area, affected by the same emergency, at any given point in time.
3. **Community-based monitoring approach** incorporates a community-based monitoring system capable of continuous, ongoing measurement of trends in the frequency and basic characteristics of UASC in defined areas over time.
4. **Residential care approach** is designed to capture the scale of movements of children into residential care facilities as a result of an emergency.

The MSiE project has been implemented in two phases. During Phase 1, the population-based estimation and the community-based monitoring approaches were both piloted in the DRC in 2014. Following positive results, lesson learned and recommendations from reports published in 2014, Phase 2 was planned, involving a second field test of the community-based monitoring approach in Ethiopia during a slow-onset drought in 2016, as well as a test of the population-based estimation approach in Haiti in a rapid-onset emergency situation following Hurricane Matthew in 2017. The emergency in Haiti also presented an opportunity to pilot a new tool alongside the population-based estimation, focusing on the movement of children post-emergency into and out of residential care settings.

This report focuses primarily on the population-based estimation approach, developed by Columbia University, and the field-testing of this approach in the Sud Department of Haiti from February to March 2017. The Save the Children International office in Haiti hosted the pilot research.

PILOT CONTEXT

On the 3rd and 4th of October 2016, a category 5 hurricane, known as Matthew, struck the Grande Anse and Sud Departments in southwestern Haiti. Hurricane Matthew was the strongest hurricane to hit the region in a decade. The Tiburon peninsula in southwestern Haiti sustained the most extensive damage. Hurricane Matthew caused 546 deaths, 460 people were injured and 132 were missing. The hurricane displaced approximately 175,500 people and left 1.4 million Haitians in need of humanitarian assistance, including 592,000 children.⁶ The storm caused widespread destruction to property, infrastructure, agriculture and livestock. An estimated 90% of homes in the southern peninsula, which includes both the Sud and Grande Anse Departments, were affected and hundreds of schools were damaged or destroyed.⁷

As a result of the widespread impact of the hurricane, it was decided that the second iteration of the population-based estimation approach should be piloted in the Sud Department. Encompassing an estimated 775,000 people, with 37% age 15 years or under, the Sud Department is one of the poorest areas of Haiti.⁸ Due to the precarious security situation in Grande Anse immediately following the hurricane, as well as the fact that Save the Children did not have a field office in the region, it was decided that the Sud Department would be the primary region of focus for the pilot. The study was carried out between February and March 2017 across 35 sites in Sud, using rigorous data collection methodologies to gather evidence on the number and characteristics of children separated following Hurricane Matthew (see Figure 1).

⁶ Save the Children, *Real Time Review: Haiti* (2017)

⁷ International Organization for Migration Sit Rep (2016); World Food Programme Sit Rep (2016)

⁸ ACAPS Department Profile (2016)

Figure 1: Map of Haiti



DESIGN AND METHODS

The objective of this approach is to provide a **population-based estimation** of the prevalence, number and basic characteristics of unaccompanied and separated children in a defined area, affected by the same emergency, at a given point in time.

Although the **Child Protection Rapid Assessment (CPRA) Toolkit**, endorsed by the Alliance for Child Protection in Humanitarian Action and the Child Protection Area of Responsibility for use in all emergencies, gathers indicative data on family separation, the data is predominantly qualitative and provides estimates of the number of UASC from key informants from a few sites. That data cannot, therefore, be extrapolated to the emergency-affected area or to the UASC population as a whole. The population-based estimation approach aims to address this gap in the effective measurement of separation in emergencies. It is complementary to existing assessment and measurement approaches and tools.

The 'profile' of data on UASC to be collected using the population-based estimation approach includes:

- total number and prevalence of UASC
- age
- sex
- unaccompanied/separated
- intentional/accidental (as proxy needs indicator)
- location/area
- primary/secondary separation
- parental status
- care status (who living with)
- setting/site/living arrangements.

The data is collected by a **population-based cluster survey**. Population-based surveys refer to surveys in which a random sample of households (or individuals) are chosen from, and used to represent, a larger population of interest.

Sampling

Sampling was achieved via a two-stage cluster design. Assuming precision of 1.5% and a response rate of 100%, it was estimated that the study would need 35 clusters, with 23 households per cluster, to detect a 5% prevalence of separation in a population of 775,000 people (the population of the Sud Department). The sample was increased to 28 households per cluster to achieve adequate power with an expected household response rate of 80%. In other words, it was assumed that 20% of households would choose not to participate, would be empty at the time of visit, or would not include anyone over the age of 18.



Photo: Matt MacFarlane

For the first stage, clusters were selected at section level, using the probability proportionate to size (PPS) method. PPS calculations were based on 2015 population estimate data from the Haitian Institut de Statistique et d'Informatique, which included estimates for each of the 69 sections within the 18 communes of Sud. For the second stage, houses within each cluster were selected via systematic random sampling. Using Google Earth satellite images, areas of 90–150 households within each cluster were randomly chosen and all households in the selected area were numbered. A sampling interval m was determined by dividing the total number of households in the selected area by 28. A random number between 1 and the sampling interval value was used to select the first household. Each following household (depending on the day and the number of households in each location) was selected in a systematic fashion using the sampling interval m (ie, every 4th house with an interval of 4) to achieve a sample that was distributed across the full area of households.

In addition, a second sample of households was selected using the 'neighbourhood method'. The neighbourhood method is built on the assumption that respondents are knowledgeable about their neighbour's household composition. If this assumption holds true, the method has the potential to substantially reduce the time and costs involved in conducting a household survey. Therefore, in this study, every primary household was also asked to answer an identical questionnaire about the household of their closest neighbour. The neighbour sample was not included in the power calculation or primary analyses, but was analysed separately to assess the comparability of the results.

Data collectors

Two teams of eight data collectors were hired for the duration of the study (five weeks). All data collectors lived in the Sud Department and had served as community mobilisers with Save the Children following Hurricane Matthew. Members of the research team from Columbia University and Save the Children led a 7-day training in French for all data collectors. The training covered topics such as basic child protection definitions, technical training on the use of tablets and study tools for the data collection, research procedures, how to identify and respond to urgent action child protection situations, and how to conduct key informant interviews. A major focus of the training was on practising different scenarios through role-playing activities and field-testing with community members in Camp Perrin, a town in the Sud region where Save the Children's field office is based.

Study protocol

Upon reaching a selected household, data collectors asked to speak to the female head of household, or, if she was not available, any other adult female in the household. If no females were available, data collectors asked to speak with any adult male. If no one 17 years of age or older or no married females older than 15 years of age were available, the team continued on to the next selected household, but planned to return to unavailable households whenever possible (either later in the day or after all of the other houses in the site had been visited). On the second visit, if there was still no one available or if the respondent declined to participate in the study, the household was marked as a non-response.

Before any interviews began, the data collectors introduced the study and respondents were asked for verbal consent to participate in the research. Respondents who consented were then asked to construct a household roster with the age and sex of each current household member (a household member was defined as someone who slept under the roof of the home for at least five consecutive days each week). Laminated cards were used to facilitate the roster construction process (see Figure 2).

Once the roster was completed, data collectors asked respondents whether each current household member had been living in the household prior to Hurricane Matthew. The respondent was also asked to indicate the current caregiver for each child, as well as each child's caregiver before the hurricane. If a child's caregiver had changed since the hurricane, a series of additional questions were asked to determine the nature and reason for the change. Questions were also asked about any people who had lived in the household before the emergency

Figure 2: Example of laminated cards

but who were not part of the current roster. Finally, respondents were asked to answer the exact same set of questions with regard to the household of their closest neighbour.

By asking about general household composition before and after the emergency event, rather than separated children in particular, the intent was to reduce bias in case respondents had an interest in either over- or underestimating the true number of UASC. Asking about caregiver differences before and after the emergency also reduced the possibility that the respondents could deliberately misreport separation.

Reliability

The team hypothesised that, while female heads of households would be the most reliable informants, other household members might also have been capable of giving the same information. In order to assess the reliability of female heads of household compared to other potential respondents, data collectors conducted second interviews with alternative respondents in a small number of households that were already included in the main sample and in which the primary respondent was a female head of household. Specifically, in two to three of the selected households across each of the 35 clusters, and in three of the selected households, a second adult female was interviewed; and, in an additional two to three selected households, an adult male was interviewed. All interviews were identical to the original interview carried out with the female head of household and were carried out on the same day, generally at the same time, as the initial interview.

Similarly, in order to assess the reliability of the neighbourhood method, in two to three households per cluster interviews were conducted directly with the households adjacent to the primary household. The adjacent households were asked to report about their own household and the primary household. Thus, two different sources of data were generated for each household: the household's own account and the account from the household's neighbour.

All data was collected in Haitian Creole on Samsung Galaxy tablets using the SurveyCTO application.



Photo: Matt MacFarlane

FINDINGS

The primary outcome of interest was the prevalence of UASC in the Sud Department in the 5-month period following Hurricane Matthew. A total of 1,044 primary households were surveyed. The total sample of households totalled 1,175, giving a response rate of 88.5%. Primary households reported that they had lived in their current location for an average of 27 years. Mean household size was 5.39 people, including an average of 1.96 children per household.

The secondary outcome of interest was a profile of the characteristics of these children, including age, sex, reasons for separation, and current caregiver. Unaccompanied and separated children were defined following the Interagency Guiding Principles on UASC.⁹ Specifically, separated children were children who had been separated from both parents, or from their previous legal or customary primary caregiver but not necessarily from other relatives. Therefore, the definition included children under the care of other adult family members. Unaccompanied children were children who had been separated from both parents and other relatives and were not being cared for by any adult who, by law or custom, was responsible for doing so.

To compensate for the fact that UASC might be living in places not captured by a household survey (such as on the street or in a residential care facility), the tools were designed to measure both arrivals and departures of children from households. 'Arrivals' were defined as children who currently lived in the sampled household but whose caregiver had changed following the hurricane. Thus, arrivals included children whose primary caregiver had changed following the hurricane but who continued to live in the same location. 'Departures' were defined as children who had left the sampled household since the hurricane and whose caregiver had changed, meaning departures did not include children who had left with their primary caregiver. Births and deaths were not counted as either arrivals or departures. Findings were disaggregated by arrivals and departures to prevent double-counting children who might have moved from one household to another.

⁹ International Committee of the Red Cross (2004)

Arrivals

Out of a total of 2,046 children living in the surveyed households at the time of data collection, 3.03% (n=62) had been separated following Hurricane Matthew, meaning they had either arrived in the household after the emergency or experienced a change in caregiver during this time. Results were robust to weighting across clusters.

Among the 62 separated 'arrivals', 35 children were classified as unaccompanied. In this same group of 62 separated arrivals, there were slightly more boys than girls, but this difference was not statistically significant (56% vs. 44%, p-value=0.37). Nearly two-thirds of the separated arrivals were between 5 and 14 years of age. Before the hurricane, 75% of these children were under the care of their mothers or fathers. After the hurricane, the most common caregivers were aunts or uncles (40%) and grandparents (29%). A notable percentage of the arrivals (8%) were domestic workers in the home of an unrelated adult. The vast majority of arrivals (>80%) were separated intentionally. School was the most common reason for separation (46%), followed by the death of parents and food insecurity (17% each).

Table 1: Prevalence of separation after Hurricane Matthew

	<i>Arrivals</i>	<i>Departures</i>
<i>Prevalence</i>	3.03% (n=62 children)	1.12% (n=23 children)
<i>% male / female</i>	56% / 44%	39% / 61%
<i>Age</i>	Most ages 5–14	Most ages 5–17

Departures

Out of a total of 2,060 children living in the surveyed households prior to Hurricane Matthew, 1.11% (n=23 children) had since departed from their households without their previous caregiver. These results were robust to weighting across clusters.

Among the 23 separated departures, only one child was classified as unaccompanied. There were slightly more departed girls than boys, but this difference was not statistically significant (61% vs. 39%, p-value=0.41). With the exception of two young children, all of the departures were between 5 and 17 years of age. Before the hurricane, 65% of these children were being cared for by their mothers or fathers; however, after the hurricane, most departed children were thought to be under the care of an aunt or uncle (57%) or a grandparent (13%). For 17% of departures, their current caregiver was unknown to the respondent in their previous household. Nearly every case of separation among departures was reported as intentional (96%), with the most common reasons for separation being school (44%) or death of parents (31%).

Table 2: Prevalence of separation after Hurricane Matthew

	Arrivals prevalence	Departures prevalence
Separation (overall)	2.93%	1.3%
Unaccompanied only	1.89%	0.05%

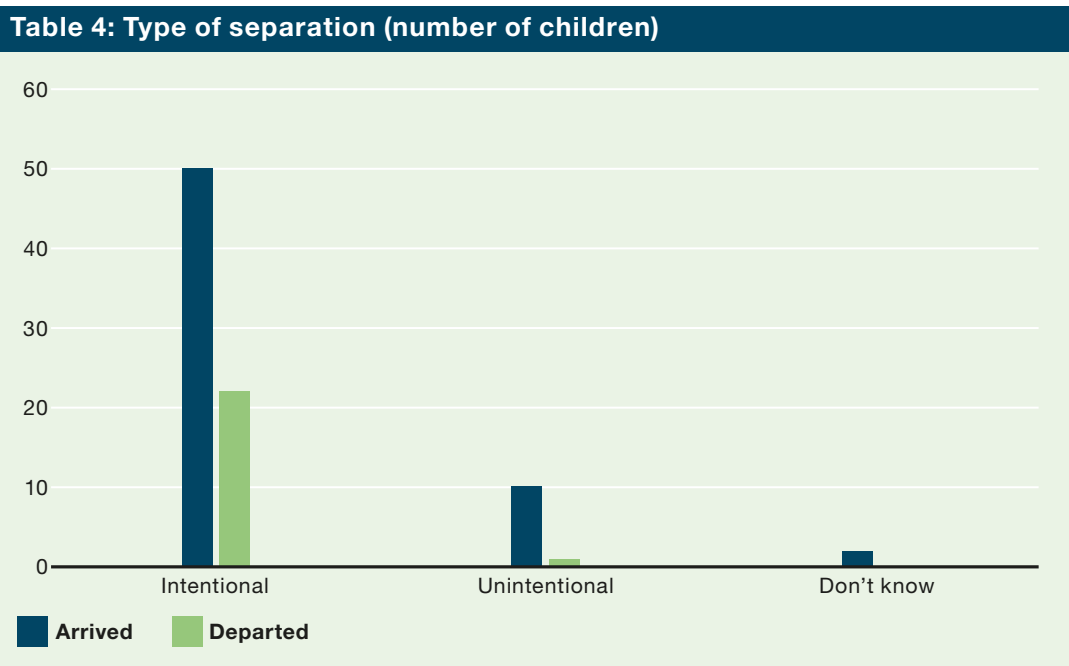
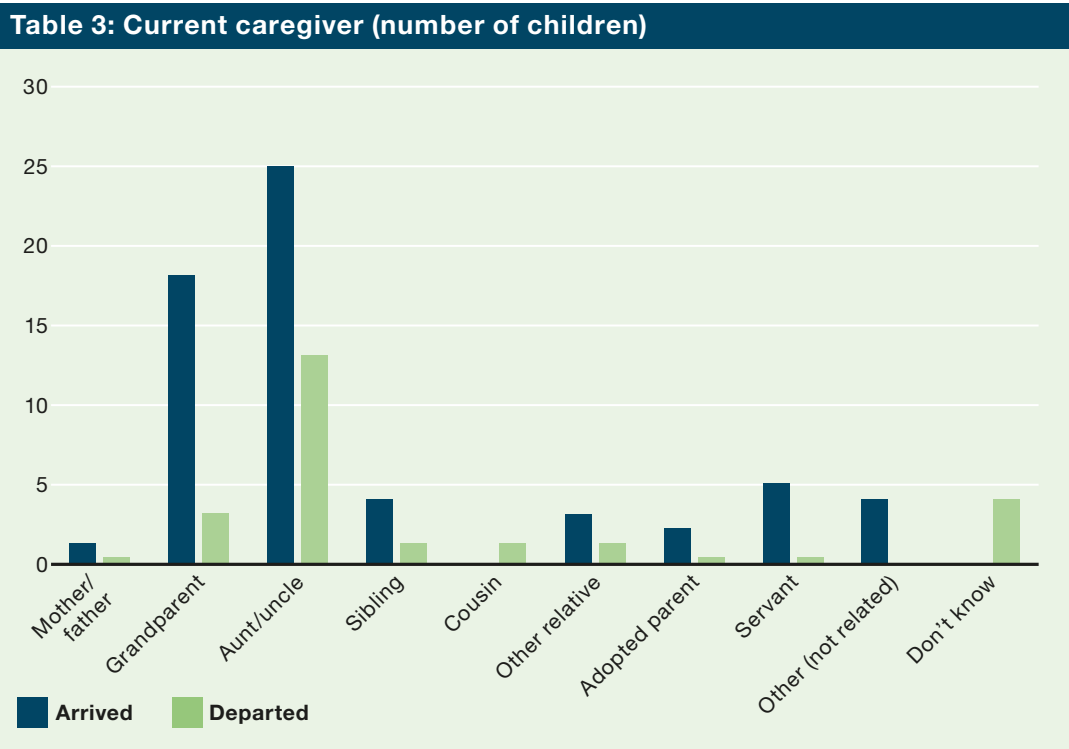
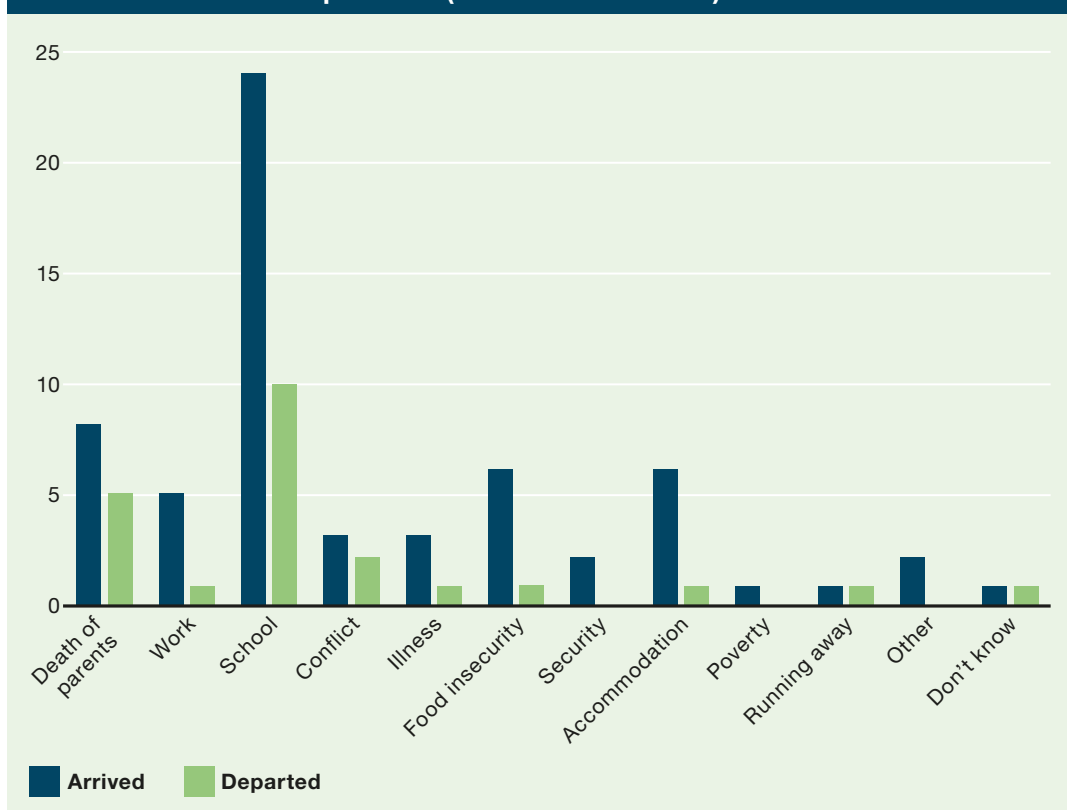


Table 5: Reason for separation (number of children)

Prevalence of separation based on the neighbourhood method data

A total of 1,044 primary respondents provided information on 6,325 individuals from their own household, including 701 departures, as well as information on 4,165 people from the household of their closest neighbour. The prevalence of separated children who arrived in neighbours' households as reported by primary household respondents was 2.43%, with 0.79% reported as being unaccompanied. The prevalence of separation among departures was 0.48%. Reported cases of separation were slightly lower, overall, compared with the level of separation reported in respondents' own home. A direct comparison on the prevalence of separated children, both arriving ($p=0.29$) and departing ($p=0.08$), as well as departing unaccompanied children ($p=0.47$), indicates that respondents did not report statistically significant differences of separation at a 0.05 level. However, there was a statistically significant difference in reports among unaccompanied arrivals ($p=0.021$), meaning that the prevalence of separation – when asking about respondents' own household – was not different from the prevalence of separation when asked about their neighbour's household. As a result, the study can (partially) conclude that the primary household knows about the level of separation in the neighbour's household to the same degree that they know for their own household.

Reliability of secondary respondents in households

Finally, secondary respondents in a subset of households were compared to the female head of household to determine the level of reliability between different potential household respondents. Ninety-nine secondary adult female respondents were compared to female heads of household in their own home, as were 103 adult male respondents. The prevalence of separated children reported by secondary female respondents was 2.97% for arrivals and 0.44% for departures, compared to 3.64% and 0.81%, respectively, among primary females in the same home; these differences were not statistically significant at a 0.05 level. Similarly, the prevalence reported by adult male respondents was 5.50% for arrivals and 1.05% for departures, compared to 4.69% and 0.47% reported by primary females in the same home. Again, the differences between primary and secondary respondents were not statistically significant. Together, these results suggest that reported prevalence of child separation will be similar across different respondents in the same home.

DISCUSSION

The aim of the population-based estimation pilot study in Haiti following Hurricane Matthew was to determine the prevalence, number and basic characteristics of UASC in a defined area affected by the hurricane at a given point in time with the purpose of informing and supporting child protection practitioners in developing appropriate programmatic responses to separation in emergencies.

According to the findings, the overall rates of separation in the Sud Department five months after the hurricane were relatively low (3.03% for arriving children and 1.12% for departing children). The main reported reason for separation was school (38.7% arrivals; 43.5% departures); the second was death of parents (12.9% arrivals; 21.7% departures). Food insecurity, and housing/accommodation were both mentioned third (9.7% arrivals; 4.3% departure). The majority of children were school-aged between the ages of 5 and 9 (30.6% arrivals; 34.8% departures) and 10 and 14 (32.3% arrivals; 34.8% departures). Separation was reported as intentional in 80.6% of cases of arrivals and 95.7% of departures. The findings from Haiti have important implications for child protection programming following natural disasters. The low levels of separation in Haiti illustrate families' capacity for resilience in this specific setting. Overall, the findings emphasise the importance of collecting population-based data about local separation patterns whenever possible and avoiding the use of unproven 'rules of thumb' to generalise about separation in a given situation. Future iterations of this approach will contribute to an improved global understanding of how the complex patterns and drivers of separation vary according to different emergency typologies.

These findings also raise several important points specifically regarding the impact of emergencies on livelihoods. Hurricane Matthew had a devastating impact on property, infrastructure and agriculture, destroying many crops and leading to widespread food insecurity. In Sud, an estimated 126 public schools were seriously damaged.¹⁰ According to UNICEF, many schools that were not affected throughout the Sud and Grand Anse regions were used as temporary shelters, causing school disruption for approximately 150,000 children.¹¹ The impact of the hurricane on schools, property and agriculture is directly related to the subsequent impact on separation, as apparent from the findings. In addition, the high rate of intentional separation and the focus on school as a reason for separation suggests that families sought coping strategies due to economic hardship, with children moving away in order to continue their education. The low level of separation among children under 5 years of age also suggests that families might prioritise care for younger children who are not yet of school age.

¹⁰ UNICEF (2016)

¹¹ Ibid

In Haiti, education is highly valued and has been reported as a contributing factor of child domestic work, which is prevalent throughout the country, with one out of every four children living separately from their biological parents.¹² During the current study, a total of 8% of UASC were identified as domestic workers. A child domestic worker is an individual under the age of 18 years who performs domestic work in the home of a third party, either paid or unpaid.¹³ According to a study published by UNICEF, most children who live away from their parents fall into the category of child domestic worker.¹⁴ In Haiti, there is a widespread practice among family members with financial means to employ the children of relatives or others as domestic workers. UNICEF research indicates that some of the children who were found to be living with relatives may also have been child domestic workers, although the data collected during the study did not specify this point directly in the household questionnaire.

Overall, child domestic work has been explained as a way to help relatives who do not have the financial means to care for all of their children.¹⁵ This practice is not necessarily a matter of attitude, but rather a coping mechanism used by parents or children themselves who seek employment to pay for their own schooling.¹⁶ Given the history of child domestic work in Haiti as well as the value placed on education throughout the country, it is likely that Hurricane Matthew exacerbated family separation due to its devastating impact on livelihoods and the wider economy, with children intentionally separating as a coping mechanism; that, in turn, may have heightened the risk of child domestic work.

The findings showed that the death of parents was the second main reason for separation; however, the numbers are low, especially for arrivals (12.9% arrivals; 21.7% departures). In Haiti, although the hurricane had a devastating impact, the overall death toll in relation to the total affected population was relatively low. Comparatively, in a conflict-related setting where there is a higher rate of insecurity and violence (or in a larger-scale natural disaster) it is likely that the death toll, and by extension the rate of unintentional separation caused by the death of caregivers, would be higher.

A significant aspect of the study was the evaluation of alternate methods for assessing households beyond the traditional approach of interviewing female heads of household about their own home. First, the project tested the applicability of the neighbourhood method, in which individuals were asked about their own household and also that of a neighbour. This method was also evaluated in the DRC, where findings showed a low level of agreement. The significant advantages that the neighbourhood method provides in terms

¹² Sommerfelt, ed. (2014)

¹³ Ibid

¹⁴ Ibid

¹⁵ Ibid

¹⁶ Ibid

of resource efficiency encouraged a second evaluation of the method in Haiti. Although primary households indicated fewer residents and departures in neighbours' homes, the prevalence of separated and unaccompanied children was generally not different at a statistically significant level. The comparison of prevalence rates suggests that primary households are generally able to report child separation among neighbouring households at a level similar to reporting their own households. Given the mixed results across the DRC and Haiti, ongoing research might usefully explore whether the neighbourhood method is a valid approach for measuring separation in emergencies.

The second methodological evaluation focused on assessing the consistency of different respondents within the same household, and in particular comparing with the responses of the female head of household. The results showed that other adult females and males within the same home reported prevalence of child separation at similar levels to the female head of household for both arrivals and departures. As with the neighbour evaluation, the findings suggest that secondary adult males and females are able to identify similar levels of separation as female household heads, the traditional primary choice for survey responses. Thus, future iterations of the project that focus on separation as the main outcome may be able to rely more strongly on non-traditional respondents within the home, such as other adult males and females. This finding may have practical use in emergency contexts when surveyors are unable to return multiple times to try to re-interview a sampled household.

Finally, the findings from the Haiti pilot show the negative impact of a natural disaster on livelihoods and household welfare. Findings from this pilot will help inform appropriate sector-specific programmes and policies that build the resilience of the Haitian government, communities and families to prevent or respond to family separation in a timely, efficient and sustainable manner. Since Haiti experiences hurricanes every year, this resilience is important in order to develop preventive strategies and social protection interventions that support income-generating activities and livelihoods programming so that children will not intentionally separate to pursue school or employment.

LEARNING AND IMPLICATIONS

There are some key areas of learning that can be identified from the field-testing of the population-based estimation approach in Haiti, which have implications for further development and future implementation. Each area of learning is outlined below along with recommendations for future piloting.

1. Emergency-affected region

Although this study was able to successfully meet the goal of developing a representative assessment of the prevalence of separated children in the Sud Department of Haiti, the evaluation was not inclusive of the entire area affected by Hurricane Matthew. The Grande Anse Department of Haiti was also devastated by the hurricane, but was not part of the sampling frame. Poverty levels in Grande Anse are even higher than in Sud, which means that the devastation to livelihoods might have had an even greater impact on child separation than what was observed in the Sud Department. Grande Anse was not selected due to heightened insecurity in the region following the hurricane. In addition, Save the Children did not have a field base there, which would have facilitated the logistics of conducting the evaluation.

Recommendation To the extent possible, conduct the population-based estimation across as much of the emergency-affected area as possible, while recognising that findings will only be representative of the area in which it is conducted.



2. Neighbourhood method

For most types of separated children in Haiti, the prevalence of separation reported in neighbours' households was similar to the prevalence of separation reported in primary households. This suggests that the neighbourhood method may be an effective way to reduce the time and resources required for conducting household surveys about UASC. However, these findings are not consistent with findings from the neighbourhood method in the DRC, where the prevalence of separated children was statistically significantly higher in primary households compared with neighbour households.

Recommendation Continue to pilot the neighbourhood method in additional settings to assess its comparability and reliability, compared with traditional household surveys. Because the neighbourhood method has not been validated for this topic, any future studies on UASC that involve the neighbourhood method should be adequately powered based on the primary household sample alone. This approach will allow the research team to calculate the prevalence of separation in primary households, even in settings where the neighbourhood method may not prove to be feasible.

3. Electronic data collection

All data in Haiti were collected electronically using the SurveyCTO platform on tablet computers. The SurveyCTO platform is an easy-to-use program that can be downloaded for free from anywhere in the world. Data collectors quickly learned how to use the tablets and the SurveyCTO interface during training. Electronic data collection eliminated the need for manual data entry and also enabled the use of automated skip patterns in the questionnaires. These features saved time and reduced errors, compared with the paper-based data collection method used in the DRC.

Recommendation Electronic data collection should be used whenever appropriate resources are available. The main resources required are a sufficient number of tablets or Smartphones (one device per interviewer) and daily internet access or mobile data. It is not necessary to have constant, uninterrupted internet or mobile data access during interviews, but connectivity should be available approximately once a day in order to upload data at regular intervals.

CONCLUSION

This study represents the first known attempt to rigorously determine the level of child separation following a natural disaster. The findings presented above have important programming implications, while the methodological evaluations will contribute to improved efficacy in future work within the field of child protection in emergencies. The overall aim of the population-based estimation was to determine the prevalence, number and basic characteristics of UASC in a defined area, affected by the same emergency, at any given point in time. The study successfully reached its aim, and found an approximate 3% of separation among the affected population in the Sud Department. The overall level of separation in Haiti was lower than it was in the DRC pilot. This lower level may be due to the shorter recall period and the fact that the study was representative of the Sud Department and not Grand Anse, which was equally if not more severely affected by Hurricane Matthew. It may also, however, reflect the nature of the emergency in that the hurricane did not create significant displacement, potentially limiting primary separation.

Hurricane Matthew had a significant impact on livelihoods in Haiti. The majority of separations following Hurricane Matthew were reported as being intentional. An emergency situation often exacerbates stress on already vulnerable families, which can lead them to adopt negative coping strategies. It is therefore necessary at policy level to design social protection interventions as well as livelihood supports that emphasise preventive strategies.

Ultimately, a multisectoral approach,¹⁷ including health and education sectors, needs to be employed in order to prevent the need for intentional separation and to identify and respond to separated children. The protection of separated children and the prevention of family separation during an emergency cannot be achieved via the efforts of one individual, organisation or sector, but requires the pooling of knowledge, skills and resources, and joint problem solving between the local community, government, and support agencies. Every country context and every emergency situation is different. This diversity emphasises the need for further piloting of the population-based estimation, both to improve immediate response and to build an evidence base that can guide pertinent and appropriate activities to prevent and reduce family separation during emergencies in the long term.

¹⁷ A multisectoral approach is defined as an approach in which all stakeholders are required to live up to their roles to better protect vulnerable children, including government, members of civil society, local authorities, local and international non-governmental organisations, healthcare workers, social workers, teachers, and families and children themselves. All actors should engage in open dialogue regarding vulnerable children and should seek to build partnerships across all sectors to determine avenues to more comprehensively support and protect vulnerable children and their families.

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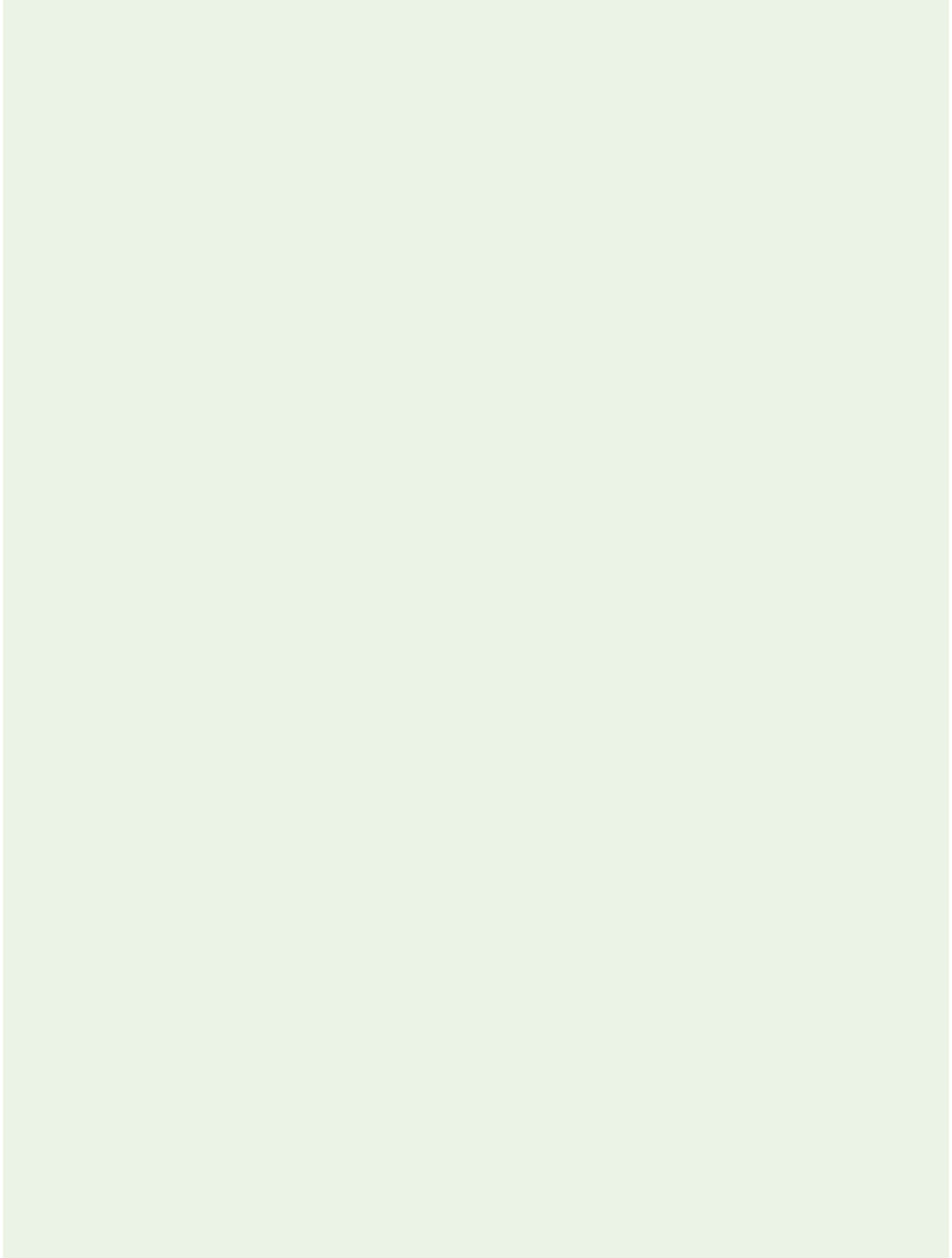
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A population-based estimation in Haiti following Hurricane Matthew

This is part of a series of reports on pilots of tools developed under the OFDA-funded Measuring Separation in Emergencies Project, implemented by Save the Children and Columbia University on behalf of the Alliance for Child Protection in Humanitarian Action.

This report focuses on the piloting of population-based estimate tools to measure separation of children within and between communities in the Sud Region of Haiti, following Hurricane Matthew. The pilot was hosted by Save the Children International.