

IMPACT OF HURRICANE MARIA ON PUERTO RICO'S CHILDREN



VOLUME I: SUMMARY OF RELEVANT FINDINGS

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CONTENTS

AUTHORS	2
BACKGROUND AND RESEARCH QUESTIONS	5
SUMMARY OF OUTSTANDING ASPECTS.....	7
LEVELS OF PREPAREDNESS WERE NOT ALIGNED WITH THE MAGNITUDE OF THE DISASTER.....	7
MOST OF THE FAMILIES SPENT THE HURRICANE IN THEIR HOUSES	9
FRIENDS, FAMILY MEMBERS AND COMMUNITY WERE KEY ACTORS DURING THE RESPONSE.....	9
Response and actors in the community environment	9
Volunteering	10
Self management and resiliency of children.....	10
MOST HOUSEHOLDS WITH CHILDREN SUFFERED LOSSES AND SOME HAVE STILL NOT RECOVERED.....	12
The majority of households with children experienced damage to the property, with the lowest income households being the most affected.....	12
After the hurricane, nearly the entire population was without basic services.....	12
Food insecurity in households with children.....	13
Material and emotional losses	14
One year after the event, families with children continue to feel the socio-economic impact	14
THE EFFECTS ON CHILDREN'S EDUCATION WERE MULTIPLE	15
The time of school re-openings varied	16
CHILDREN HAVE DISPLAYED BEHAVIOR CHANGES IN SCHOOL AND AT HOME.....	18
Changes in the behavior of children in schools	18
Changes in behavior observed at home.....	19
INTERRUPTIONS TO CHILDREN'S HEALTH SERVICES.....	20
COMMUNITY INFRASTRUCTURE PERCEIVED AS WORSE AFTER THE HURRICANE.....	20
THE PROBABILITY OF MIGRATION OF FAMILIES WITH CHILDREN IS HIGH.....	20

BACKGROUND AND RESEARCH QUESTIONS

Children and adolescents have been identified as one of the most vulnerable populations to the onslaught of natural disasters. Studies conducted in the United States suggest that these groups are disproportionately impacted by catastrophic events (Council, D. P. A., & Committee on Pediatric Emergency Medicine, 2015). In the context of Puerto Rico, with a high percentage of that population currently living under poverty levels (57.3%), it is very likely that they constitute one of the most affected groups after the passage of Hurricane Maria. However, very little attention has been focused on this population.

More than a year after the Hurricane, it is urgent to know and understand the diversity of experiences of children and young people in the face of this natural phenomenon and how it affected the different dimensions of their lives and that of their families. This, in turn, will allow us to identify the needs that arose and those that persist in that population and develop actions that reduce or eliminate negative impacts in the future. In addition, given the high possibility that this type of phenomenon becomes more recurrent due to climate change, it is important to design strategies and public policies that help protect the population of children and adolescents in the event of such future events.

Given the recognition of the state of vulnerability of this population, but also its importance in the long-term recovery of the country, the *Institute for Youth Development (Instituto del Desarrollo de la Juventud, IDJ)* commissioned a study on the Impacts of Hurricane Maria on Children and Young People of Puerto Rico. The IDJ is a non-profit organization, affiliated to the Boys and Girls Clubs, whose mission is to advance public policies at the federal and state levels, that result in the well-being of children and youth on the Island.

The Study addresses the ten (10) research questions listed below:

1. To what extent has the education of children in Puerto Rico been affected as a result of Hurricane Maria?
2. To what extent has the health of children in Puerto Rico been affected as a result of Hurricane Maria?
3. To what extent has the economic situation of their families been affected as a result of Hurricane Maria?
4. To what extent have the children been left homeless or displaced?
5. To what extent has child abuse or neglect increased after Hurricane Maria?
6. To what extent have children migrated from Puerto Rico?
7. What did the government, the private sector and the non-profit sector do to meet the needs of children after Hurricane Maria?

8. What were the main gaps in the general response after the passage of Hurricane Maria?
9. To what extent were efforts duplicated?
10. What were the main challenges in the response to Hurricane Maria?

The goal is to provide broad access to information that allows us to understand the implications of a hurricane for our children and their families, for the development of measures that help provide the necessary conditions, experiences and opportunities for our children to recover and can become active members of the recovery and reconstruction efforts of Puerto Rico.

To address the research questions, we worked through a multi-method approach whose tasks were carried out by the research and consulting firm *Estudios Técnicos, Inc.* (ETI) and a multidisciplinary team from the University of Puerto Rico, Río Piedras Campus (UPRRP).

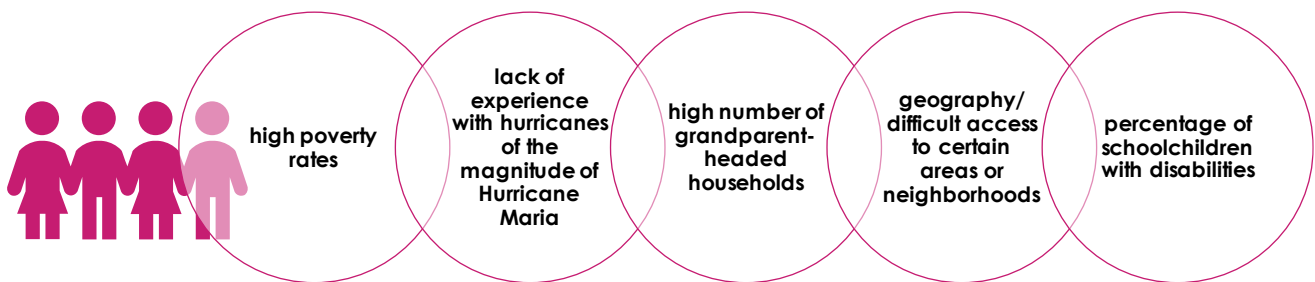
The ETI team was responsible for the design, execution and analysis of a representative survey of 705 households with children under 18 years of age in Puerto Rico, while the University of Puerto Rico worked with an analysis of secondary sources and an in-depth exercise through qualitative research techniques, in which they visited five municipalities and qualitative information was collected from around 60 people in each municipality. The survey was conducted during the months of July to September 2019. The qualitative data were collected between October and November of 2018. The team from the University of Puerto Rico also collected administrative data from the agencies that most directly impacted children and youth during the recovery; state government officials were also interviewed.

This first volume presents a summary of the most outstanding aspects of both research efforts, which served as the basis for a complementary publication of the IDJ that contains the public policy recommendations derived from the study. Volumes II and III contain the detailed reports of the investigations carried out by *Estudios Técnicos, Inc.* and the University of Puerto Rico, Río Piedras Campus.

SUMMARY OF OUTSTANDING ASPECTS

The information that emerges from the research reviewed in this document demonstrates the way our children and adolescents were affected after Hurricane Maria and the repercussions that this event continues to have on their lives and those of their families. Moreover, it demonstrates how children and young people under poverty levels were more likely to be destabilized and adversely affected by the hurricane. Likewise, differences are observed in the way in which the hurricane affected families and children by geographical area and those children with special health needs. Poverty, the fact of not having previous experience with hurricanes of the magnitude of Maria, the high number of families headed by grandparents, the geography of the neighborhoods, and the high percentage of children with disabilities represent the main vulnerabilities identified in the qualitative research carried out. These make our children and adolescents one of the population segments with the greatest potential for impact in the face of a disaster.

MAIN VULNERABILITIES THAT MAKE OUR CHILDREN AND ADOLESCENTS ONE OF THE POPULATIONS WITH THE GREATEST IMPACT POTENTIAL IN THE FACE OF A DISASTER



LEVELS OF PREPAREDNESS WERE NOT ALIGNED WITH THE MAGNITUDE OF THE DISASTER

The survey carried out by the team of Estudios Técnicos, Inc., as well as the focus groups and interviews conducted by the University of Puerto Rico, point to levels of preparation that were not aligned with the magnitude of the event.

Families, communities and institutions did not have a frame of reference for the preparation before a phenomenon of the force and nature of Hurricane Maria, which increased the negative impacts and limited the options for a quick recovery. The survey carried out, for example, showed that 47.7% of households with children under 18 had a prior plan to respond to the disaster. This proportion is lower in the case of households with lower income levels and where the head of the household has a lower level of education. Thus, it was observed that in households with lower income and education levels (less than \$15,000 and high school or lower level of education) this percentage was significantly lower, around 41%.

Regarding other factors associated with preparedness, the survey found that in seven out of ten households they knew which government agencies to call in case of an emergency, while only three out of ten knew of entities or groups in the community to contact, which were ultimately the first to respond.

On the other hand, only one in four households had an electricity generator and three in ten a cistern. After the disaster occurred, a significant proportion of households were forced to acquire a generator. Eventually, 54.1% had a generator, either because they acquired it before or after María, and 36% acquired a cistern. Differences were also observed by educational level, with a higher proportion of households that had a generator among those whose head had a higher level of education.

In schools, which perhaps constitute one of the environments with the greatest impact on the lives of children and adolescents, the qualitative research showed that the teachers and the rest of the school staff made the usual preparations and not those that would be necessary to reduce the impact of a category 5 hurricane. A teacher who was interviewed told us: *"we left thinking that we were going to meet again in a couple of days"*. Likewise, it was observed that at the municipal level, preparedness plans did not include children. A municipal official mentioned, for example, that: *"It's funny, look; we must have a plan for the handling of animals, and they have never told us about a plan for handling children."*

The roles of children and youth in the preparation processes were diverse, as demonstrated by qualitative research. Some young people were simply spectators of what appeared to be chaos during the preparations for the hurricane. A young woman from Comerío commented: *"My mom was super-panicked, but I thought she was exaggerating."* Others participated directly in the preparation of their homes and communities, for example, in the placement of storm shutters, in the cleaning of ditches and in the collection of documents. But the frustration at the loss, despite the preparation is evident in the words of a young woman: *"even what my mother had done was not enough for what awaited us."* Another young woman said: *"Puerto Rico really was not prepared for such a strong hurricane."*

The teenagers who live with their grandparents had to assume important roles in the preparation: *"Look, I live with my grandparents, then they did not want to leave their house, in which they lived for more than thirty years. I had a constant struggle with them to go to my uncle's house, which was the floor below, and finally I managed to convince them just minutes before the hurricane came in. I only managed to get two bags of clothes, nothing else. And almost everything was theirs, I could make them go downstairs because they are older, and I was more worried about them than about me."*

MOST OF THE FAMILIES SPENT THE HURRICANE IN THEIR HOUSES

In the majority of households with children under 18 years of age, they passed the hurricane in their housing unit (76.2%) while two out of ten (18.3%) mention having stayed during the hurricane at the home of a friend, relative or acquaintance in Puerto Rico. For those who did not pass the hurricane in their home, the average time it took for them to return home was 68 days.

The survey data suggest that after the hurricane, in some 30,104 households at least one person was out of Puerto Rico as a result of the Hurricane (one in ten, 9.1%); situation that was observed to a greater extent in households with lower income levels in the Central, South and East areas of the Island (as defined for the purposes of the Study).

In a similar proportion of households (about one in ten, 8.1%) children were separated from other members of the household at some point as a result of Hurricane Maria. Of these, three out of ten (31.6%) were out of Puerto Rico, for an average of about 75 days.

Qualitative research suggests that the long time it took to reopen schools was a factor that contributed to the emigration.

FRIENDS, FAMILY MEMBERS AND COMMUNITY WERE KEY ACTORS DURING THE RESPONSE

Response and actors in the community environment

After Hurricane Maria, friends, family members and the community itself were key actors in the response and relief of households with children under 18, as validated by the survey, interviews and focus groups conducted. Likewise, the structures closest to the communities, including the municipalities and faith-based entities, were part of that initial response, while the central government in many instances (as is clear from qualitative research), is perceived as an entity that was absent.

According to the survey data, seven out of ten households had contact with friends or relatives and with neighbors or community members after the Hurricane (74.9% and 71.9%, respectively), while three out of ten cases they had contact with personnel of the municipalities (36.5%); personnel of the Army of the United States (33.6%), and members or volunteers of a church (32.2%). In only 9.1% of the cases, contact with personnel of a central government agency was mentioned.

Furthermore, neighbors or members of the community and friends or family members are perceived as the most important in terms of the support needed in households for recovering from the damage or other consequences faced after the hurricane. For 85.2%, friends or family members have been "very important or important", in that process of recovery, while 72.8% indicate that neighbors or members of the community have been important or very important.

Through qualitative research, family and friends, neighbors, school and health professionals were identified as mitigating the impacts of the hurricane on children and adolescents. In the support received by schools and communities, the following entities stand out: (1) the municipal government; (2) the churches (3) the army of the United States; (4) the diaspora, (5) private companies; (6) local nonprofit organizations; and (7) international non-profit organizations and the United States. In schools, much of the help came through private initiatives and contacts from teachers, and although some schools received more materials than needed, others received little or nothing.

On the other hand, the inclusion of the communities by the municipal government through links with community leaders and through coordination with municipal employees residing in the communities, made it possible in many cases to activate key personnel and mobilize the teams to clean and open roads to distant communities. This made possible the rapid response to some impacts of the hurricane. Municipalities such as Yabucoa and Coamo, coordinated closely with community leaders and incorporated the communities into their plans, thus achieving a faster and more effective response.

Volunteering

The level of response of citizens and social structures close to the community can also be seen in the proportion of households where at least one adult joined a recovery effort as a volunteer (33.9% of households). Particularly noteworthy is the proportion of households in the Central Region of the Island where at least one adult per household worked as a volunteer (44.4%), a larger percentage when compared to other regions. Most of the people who joined the volunteer response work did so through a non-profit community-based entity (19.3%). Likewise, it was observed that 15.6% of households indicated that some of their members joined to work as a volunteer in a recovery effort.

Self management and resiliency of children

In the qualitative research, the themes of self-management, and the resiliency of children and young people to dialogue on the response to Hurricane Maria are highlighted, together to the aforementioned perception among the participants regarding the "absence" of the State Government.

Generally, the people interviewed felt that the communities and the municipal government were the first lines of defense in the response to the hurricane, which was verified through the survey. According to them, the communities did not sit down to wait for help, but mobilized their own resources to remove debris, provide food through the creation of community kitchens, identify people at risk, and even highly technical activities such as connecting power lines.

Resiliency, on the other hand, was the main issue regarding the impacts of the hurricane on children and young people. In the absence of electricity, internet and telephony children and adolescents managed to adapt and develop alternative ways to spend their time. Many of them recognize that it was positive to get away from electronic devices. At first, some occupied their time in the immediate need to clean and open roads, especially in the case of adolescents. After that they showed a great capacity to adjust to the lack of their usual forms of entertainment. One participant indicated: "I entertained myself with other things, as I did not have that distraction, because I could do things I had never done, such as writing a complete book on paper, cleaning the surroundings, jobs that they say are for men". They also mention how they started to leave more of their homes and met many new people, including relatives with whom they had not previously interacted. It was very common to establish new friendships with neighbors and also to spend more time sharing with their immediate family. Among the activities they began to do most often were: playing outside, cycling, playing cards and board games, visiting friends, reading, writing and talking with the family. Some even went out every day as a group to ride a bike or play in the mountains. As a young man told us: "We really didn't need the phone because we were always in a "bonche" or group (like 6 or 7) and everyone with a bike, running around, trying to find a way and seeing who needed help." A teacher told us: "they played with anything, if they saw a ball, that little ball became the toy."

MOST HOUSEHOLDS WITH CHILDREN SUFFERED LOSSES AND SOME HAVE STILL NOT RECOVERED

Both the survey data and the qualitative tasks carried out reflect diverse impacts on the property, socioeconomic status, health and education of children and their families. The qualitative research highlights the damage to housing and the effects on mental health, as the main ones, which is verified and quantified, through the survey.

The majority of households with children experienced damage to the property, with the lowest income households being the most affected

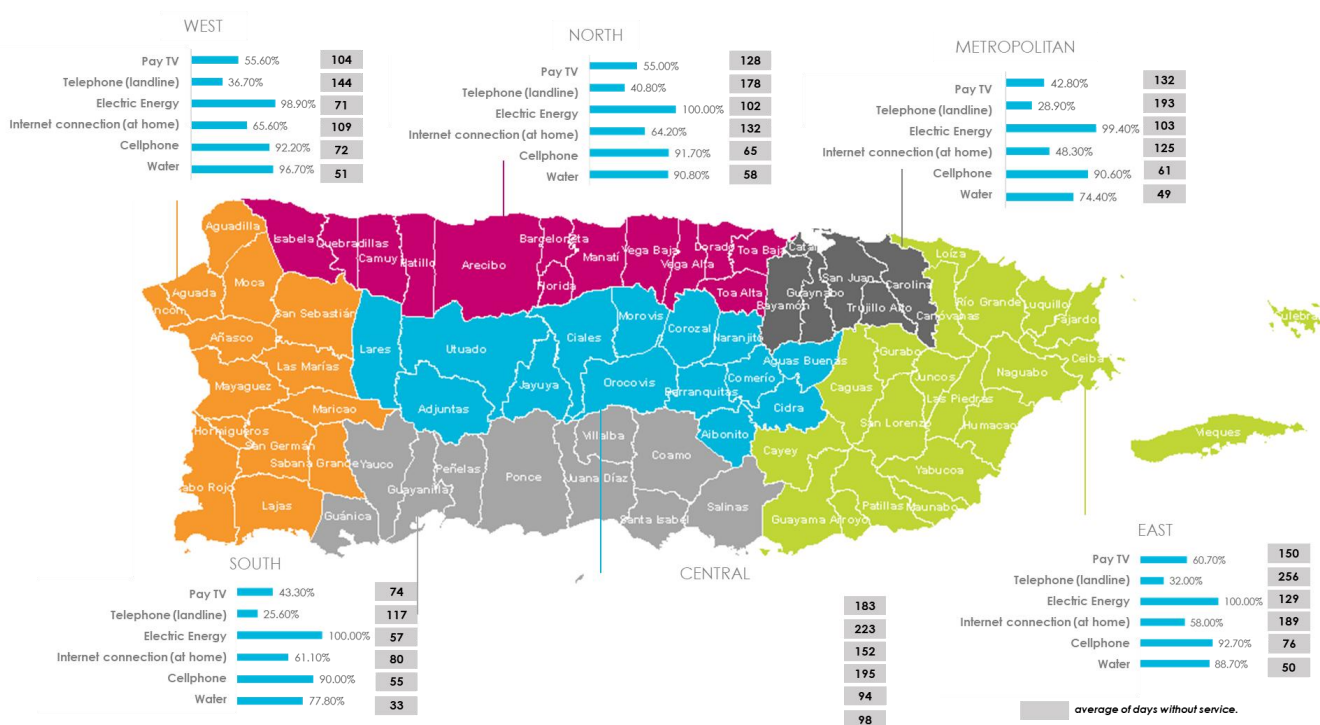
Eight of every ten households with children under the age of 18 in Puerto Rico, suffered property damage as a result of Hurricane María. The most common damages suffered include the loss of household furniture and appliances (41.7%), flooding (37.9%) and damage to windows and doors (29.9%). In all of the categories mentioned above, the region most affected was the Central region, while if we examine the damages (mentioned above) by income level, we can see that households with the lowest income (less than \$ 15,000) were the most affected. On average, in the homes that suffered damages, it is understood that to date, 51% of the damages have been covered, while one in ten households understand that the physical condition of their home is worse than before the hurricane.

At the time of the qualitative interviews (a year after the hurricane) there were still young people living in houses with blue tarps as roofs or in the homes of relatives or neighbors because their houses had not yet been repaired. Some of these young people were visibly affected. Having to move to relatives' houses caused a situation of overcrowding and instability, in which the children lost their private and study spaces.

After the hurricane, nearly the entire population was without basic services

Through the survey, it was observed that almost all households with children under 18 years of age (99.7%) were without electricity after Hurricane María for an average of 103 days. Likewise, nine out of ten (91.8%) indicated having lost cellular service, while just over eight out of ten (85%) mentioned having lost their water service. The average time the respondents were without these two services was 69 days and 55 days respectively.

LACK OF BASIC SERVICES AND DAYS WITHOUT ACCESS



Note: The numerical base is the 705 households with children under 18

Food insecurity in households with children

Beyond access to basic services, households with children under the age of 18 faced difficulties that affected the different dimensions of their daily lives. Although in general a significant proportion has faced the difficulties that follow, the most vulnerable, those with the lowest income levels, were the most affected.

Almost half of households (43.1%), indicated that they faced difficulties in having access to food in order to provide the daily meals of the children, as a consequence of the hurricane, a percentage that was significantly higher in the case of families with incomes of less than \$15,000 (50.0% versus 38.2% in the case of families with incomes of \$15,000 to \$40,000), and 27.9% in households with incomes of more than \$40,000). Moreover, in one in five households (i.e. 19.7%), they could not supply any of the children's daily meals as a result of the hurricane, observing a similar trend that the lower the income level, the higher the proportion of households that could not supply any of the meals (24.3% in households with incomes below \$15,000).

On this subject, qualitative research showed that young people adapted to a new diet based on non-perishable products. When asking parents and young people if they went hungry the vast majority said no. However, situations of food insecurity could be identified.

Material and emotional losses

As of the date of the survey, 35.9% of households reported the loss of clothing and personal effects, in 30.9% the loss of income in the home, in 27.1% the reduction of hours of employment and in 20.4% loss of employment. These effects have also been more striking in families with incomes below \$ 15,000.

AFTER HURRICANE MARIA, DID YOU FACE ANY OF THE FOLLOWING SITUATIONS IN YOUR HOUSEHOLD AS A RESULT OF THE HURRICANE?

	Less than \$15,000		\$15,000 to \$40,000		\$40,000 or more		Does not know/ Does not indicate		Total	
	f	%	f	%	f	%	f	%	f	%
Loss of clothing and personal effects	161	47.10%	49	24.00%	6	14.00%	37	31.90%	253	35.90%
Loss of household income	112	32.70%	65	31.90%	14	32.60%	27	23.30%	218	30.90%
Reduction of employment hours	75	21.90%	50	24.50%	10	23.30%	18	15.50%	153	21.70%
Loss of employment	77	22.50%	43	21.10%	7	16.30%	17	14.70%	144	20.40%
Loss of vehicle	45	13.20%	15	7.40%	1	2.30%	12	10.30%	73	10.40%
Physical or health damage to you or a household member	34	9.90%	15	7.40%	7	16.30%	9	7.80%	65	9.20%
Loss of a pet	21	6.10%	10	4.90%	0	0.00%	5	4.30%	36	5.10%
Separation from the family for reasons of migration	13	3.80%	7	3.40%	0	0.00%	5	4.30%	25	3.50%
Death of a member of the household	8	2.30%	2	1.00%	0	0.00%	1	0.90%	11	1.60%
Divorce, separation or abandonment of the couple	6	1.80%	1	0.50%	1	2.30%	2	1.70%	10	1.40%
Situation of domestic violence	3	0.90%	0	0.00%	1	2.30%	2	1.70%	6	0.90%
Does not know / Does not indicate	70	20.50%	72	35.30%	15	34.90%	46	39.70%	203	28.80%
Total	342	-	204	-	43	-	116	-	705	-

Note: The numerical base is the 705 households with children under 18 years of age.

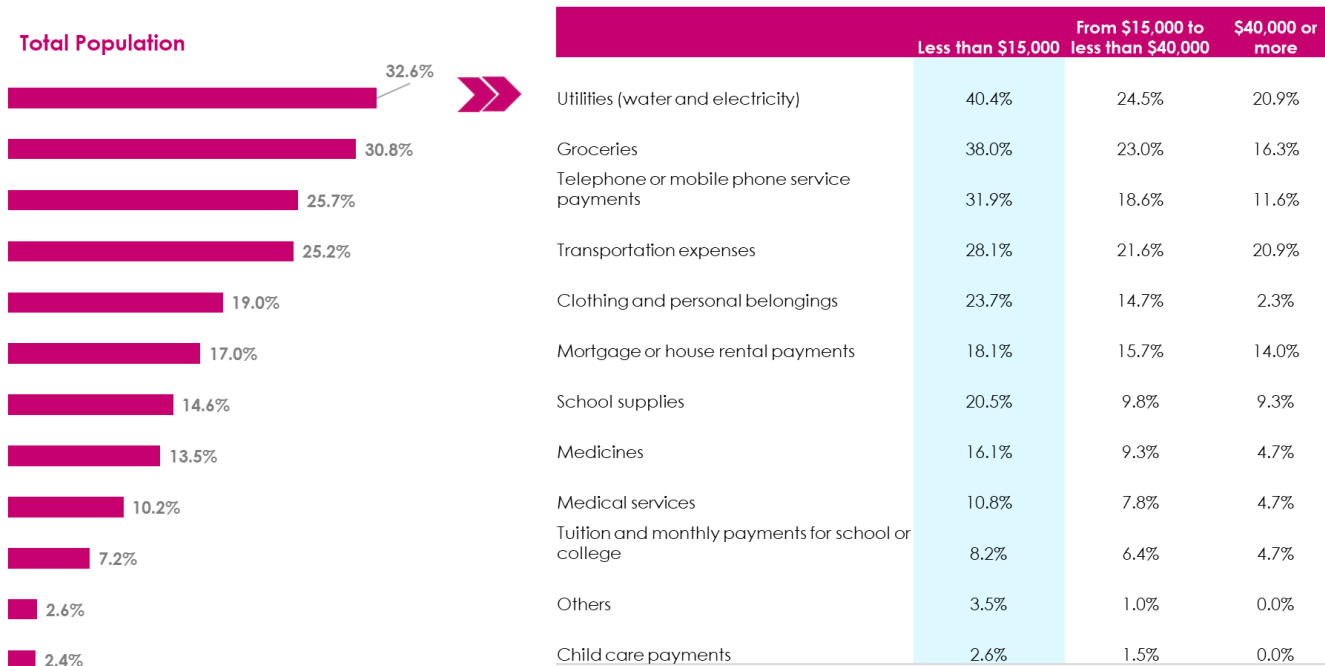
One year after the event, families with children continue to feel the socio-economic impact

One year after the event, families with children under 18 continue to feel the effects of Hurricane Maria, particularly in terms of the socioeconomic situation of their homes. As a result of the decline in employment and other situations that affected families with children under 18 years of age, three out of ten describe the socioeconomic situation in their homes as worse, when compared to the situation before María. Again, the households with the lowest income were the most affected. In households with incomes of up to \$40,000, about 32% indicate that their socioeconomic status is worse, while in the case of households with incomes of more than \$40,000, barely 9.3%, close to one in ten households.

The socioeconomic situation faced by households has also impacted other areas related to the household and the capacity of these to assume necessary expenses to maintain the quality of life of their families. Some of the most impacted areas include the payment of water and electricity (32.6%), food purchases (30.8%), cellular service payment (25.7%) and expenses

associated with transportation (25.2%). In some of these instances, the percent of families that have faced these situations among those with incomes below \$15,000, reaches 40%.

ECONOMIC DIFFICULTIES FACED BY HOUSEHOLDS AS A RESULT OF THE PASSAGE OF HURRICANE MARIA



Note: The base of this illustration is composed of the 705 households that made up the sample. It includes those who indicated the categories "all the time", "most of the time" or "sometimes".

THE EFFECTS ON CHILDREN'S EDUCATION WERE MULTIPLE

The effects of Hurricane Maria on children's education are manifested in different ways, including access to educational services, the amount of time they were without receiving the service and behaviors that are already beginning to be observed in the school environment.

In the case of children under 5 years of age, who were attending a care or preschool center at that time, the average was 92 days without attending the center or school. In 7.2% of the cases of children attending care centers or preschool, different behaviors associated with the disaster have manifested themselves, including fear of attending care, problems concentrating, lack of interest in attending and trauma, all associated with the hurricane. Likewise, of children who at that time received early intervention services (9.2%) were affected, and had their services interrupted for an average period of 88 days.

Qualitative research identified cases of entities that made adjustments to face this reality. This is the case of the Head Start program that implemented an emergency curriculum, "home visiting" and integrated the academic and emotional aspects into its teaching plans.

In the case of those children and young people between 5 and 17 years old - the majority of whom attended a public school (78.5%) - the survey showed that they were on average 78 days without attending school, educational institution or university after the strike of Hurricane Maria.

It should be noted that about one fourth (27.7%) of children aged 5 to 17 years received some special education service prior to Hurricane Maria, one of the main vulnerabilities identified in the investigation.

Of these, the great majority (85%) saw the services interrupted after the hurricane for an average of 97 days and one in ten, was still not receiving them at the time of the survey (10.3%). In this case, a relationship between income level and access to services was also observed. Thus, as the level of income is lower, the percentage that saw their special education or vocational rehabilitation services interrupted is 86.4% in the case of households with less than \$15,000 and 80% in those with more income of \$40,000.

The time of school re-openings varied

As the survey showed, in the qualitative research, it was observed that the date of reopening of the schools to receive the students varied, but it did not necessarily have to do with the condition of the schools. Shelter schools were the ones that experienced the longest delays in opening. Some schools did not suffer major damage or provide shelter, but even so, students were not received until November. Generally, classes began the second week of November. All schools visited had half-day schedules until at least the end of the semester in December 2017, and others as late as March 2018 due to the lack of electrical power.

Many principals expressed that the schools should have opened earlier in order to serve the students, especially those who had losses, showing the importance of the school as a mitigating factor.

The use of schools as shelters causes tension between the staff of the Department of Housing and that of the Department of Education. Once the school is used as a shelter, it is under the supervision of the Department of Housing. The use of schools as shelters made difficult the reopening of schools. Teachers report that refugees "did not respect teachers' materials." In addition, they note that cisterns for use by the school community and power plants are only installed in schools used as shelters creating unequal conditions between school sites. While the students were not received, the schools carried out various tasks and functions. As a social worker from Barceloneta indicated: "I understand that the school was of fundamental help for the whole family". Some of the tasks and functions performed by the school staff were the following:

- visits to students in their communities

- distribution of supplies to the houses in the community
- creation of collection centers for the distribution of food, clothing / shoes and school supplies
- census of needs of the student population
- receive parents for student transfer procedures
- receive parents to answer questions about the school calendar
- they served as a space for the coordination of municipal services
- served as meeting space for different organizations for the provision of supplies
- served as a space for the ventilation of emotions for students, families and school personnel
- provided emotional and mental help services
- assistance to workshops on emotion management
- ASSMCA workshops assistance
- community laundry
- social lunchroom

Teachers and social workers reported a diversity of feelings among students when they reopened schools. "When they returned, they looked sad and withdrawn, especially those who lost their homes" according to a teacher from Comerío, but most common was to hear that the children were happy to return to school. According to a Comerío social worker, the children were "desperate to be in school, to clear their minds." For many children, especially from high crime communities, the school is their "safe space," as a social worker from Yabucoa told us. The students said that they were bored at home and that they wanted to go back to school.

The return to school was also positive for mothers and fathers because they did not have to worry about their children while they were in school and could do their errands.

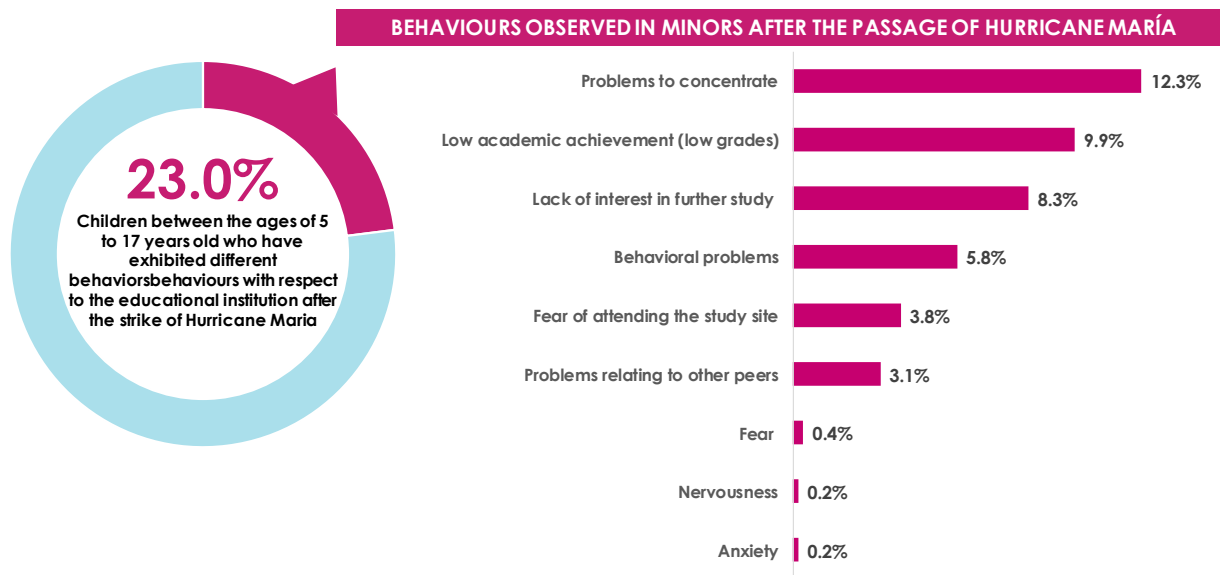
The schools made the following adjustments to deal with the impacts of the hurricane: they allowed the students to go to school without their uniforms, school work was done in the classroom, no work was assigned that required the use of technology, students who could not be picked up at dismissal at noon, could stay at the school, they worked on projects using Project Based Learning (PBL) methodology in schools and they promoted empathy, as for example, in the case of the school that installed a laundry, they explained to the students that the community would be making use of some facilities of the school, and that they should adapt to the noise (they lost the air conditioners).

CHILDREN HAVE DISPLAYED BEHAVIOR CHANGES IN SCHOOL AND AT HOME

Changes in the behavior of children in schools

The survey highlights the percentage of children and young people between the ages of 5 and 17 who already begin to exhibit different behavior at school as a result of Hurricane María (23%), as reported by parents. Of these, 12.1% have shown problems concentrating, 9.9% have low academic achievement (low grades) and 8.3% show low interest in continuing their studies.

PERCENTAGE OF CHILDREN AND YOUNG PEOPLE FROM 5 TO 17 YEARS OF AGE WHO HAVE EXHIBITED DIFFERENT BEHAVIOR AFTER THE PASSAGE OF HURRICANE MARÍA & TYPES OF BEHAVIOR OBSERVED



Note: The numerical base is the 553 children under five years old at 17 years old. As it is a question of multiple answers, an independent count is made for each of the answers mentioned and the sum of the percentages can be different from 100%.

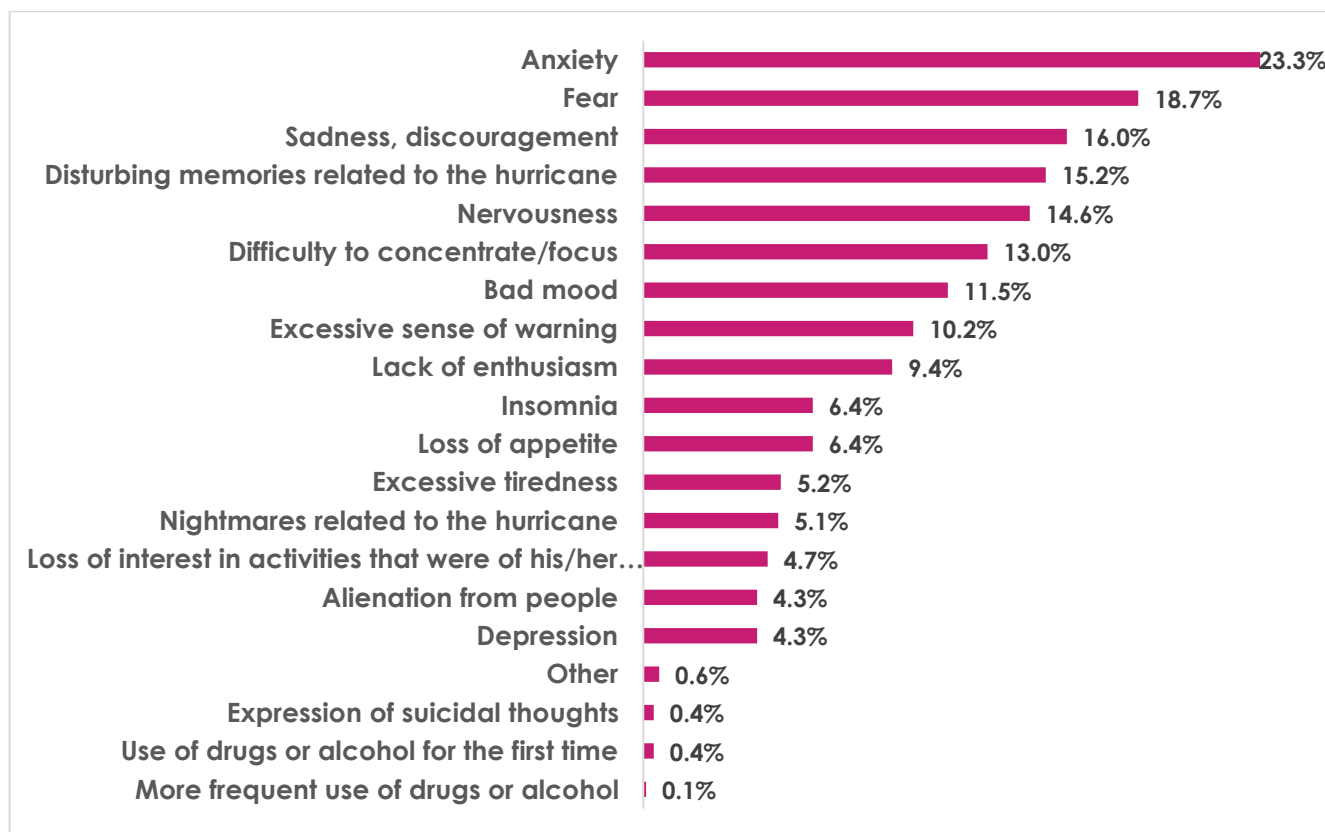
More importantly, when conducting tests to identify the possible association with other variables, a relationship was observed between showing these behaviors and having a health condition or disability and having suffered a material or emotional loss.

- Of those children who have a disability or health condition, 38.6% have shown different behavior at school or educational institution, while in the case of those who do not have such a condition, the percentage that has shown a different behavior is of 19.0%.
- In the case of those who suffered an emotional loss, the percentage that has shown different behavior at school is 33.7%, while in the case of those who did not suffer a loss of that type, the percentage is 18.0%.
- Among those who suffered a material loss, the percentage that has shown different behavior at school is 22.8%, while in the case of those who did not suffer a loss of that type, the percentage is 17.0%.

Changes in behavior observed at home

One of the topics that it is understood should be given greater attention, as reflected in the survey, the interviews and focus groups, is the effect of the hurricane on the mental health of children and adolescents. According to the survey data, 44% of the persons surveyed indicated that they had observed in the minor some type of behavior that they had not observed before the hurricane. Among the behaviors observed most frequently (from sometimes to all the time) are: anxiety (23.3%), fear (18.7%), sadness or discouragement (16%), disturbing memories related to the passage of the hurricane (15.2%) and nervousness (14.6%).

BEHAVIORS OBSERVED IN CHILDREN AFTER THE PASSAGE OF HURRICANE MARÍA



Note: The numerical base of this table is the 705 households surveyed. The percent reflects the categories of "all the time", "most of the time" and "Sometimes".

In the qualitative research, a psychologist from Yabucoa reported a significant increase in the number of visits of stressed adolescents because they could not cope with the demands of homework. While, social workers, health professionals and teachers identified mental health as an aspect they consider should have been better served.

INTERRUPTIONS TO CHILDREN'S HEALTH SERVICES

Approximately two out of ten households surveyed (17.6%) indicated that a child in the household suffers from some physical, mental or sensory impairment. Of the households in which the child or children received some type of treatment at the time of Hurricane Maria, seven out of ten (70%) faced an interruption in services or treatment, for a period of 92 days, on average. In 9.5% of the cases, they were not receiving the services or treatment at the time of the survey. According to the survey data, the East region was the most affected with an average service interruption time of 119 days.

On the other hand, among children who suffer from some physical, mental or sensory impairment and who indicated that they use some type of medication to treat their condition, 29% faced some problem of access to medications that was extended by an average of 67 days

COMMUNITY INFRASTRUCTURE PERCEIVED AS WORSE AFTER THE HURRICANE

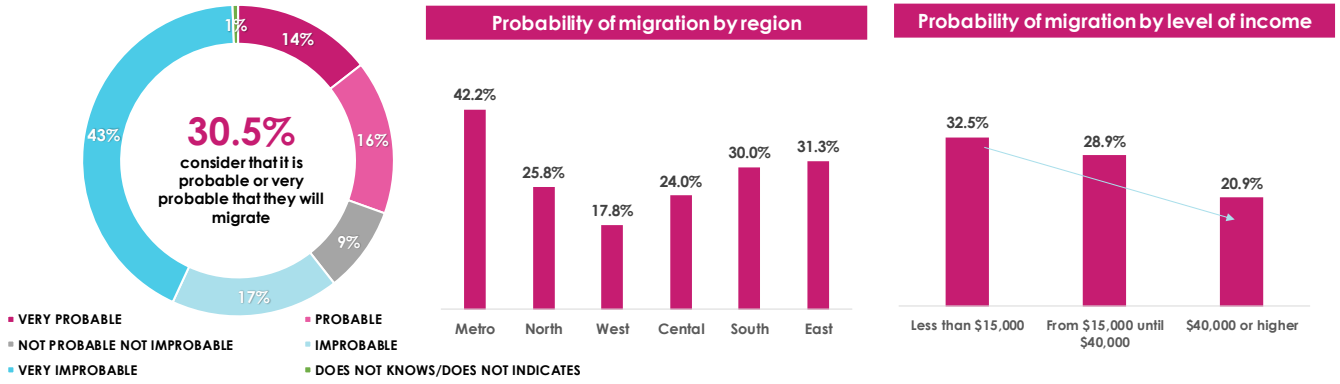
Through the survey, the perceptions on the condition of the communities worsened, in comparison with the situation prior to Hurricane Maria. Three main areas or components were addressed: utilities; physical facilities and social services. The aspects that were evaluated most unfavorably by the respondents were: the condition of the streets and sidewalks, the condition of the parks and recreational facilities, the condition of the schools and the electric power service. The needs that respondents consider to be the main ones after María, are related to: condition of streets, roads, cleaning and decoration (41.3%), condition of the basic infrastructure of energy, water and communications (32.3%); security matters (9.6%); housing (4.8%); and the economic situation (5.8%).

THE PROBABILITY OF MIGRATION OF FAMILIES WITH CHILDREN IS HIGH

When comparing the current socioeconomic situation in their communities with the situation prior to Hurricane Maria, about a third consider it to be worse (32.3%), with a greater proportion observed in the Central (44%) and North (35%) regions. Attitudes towards the situation post Maria tend to be pessimistic, even after reconstruction efforts.

Taking into consideration the situation in their communities and the Country, in three out of ten of the surveyed households they stated that it is "probable" or "very probable" that they will migrate as a result of Hurricane Maria (30.5%). This proportion is substantially higher among households in the Metropolitan Region (42.2%) and somewhat higher in households with incomes less than \$15,000 (32.6%). Of those who understand that they are likely or very likely to move, slightly more than half (51.2%) are considering moving to the United States.

MIGRATION PROBABILITY LEVEL



Note: The basis of this illustration is the 705 households surveyed.

