



Final Report on Distribution of Water-Survival Box Aid

Puerto Rico
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I. Introduction

Background of the Disaster

On January 7, 2020, a magnitude 6.4 earthquake struck Puerto Rico – the strongest quake recorded on the island in more than 100 years. The earthquake resulted in power outages across the island and limited access to safe drinking water, affecting families who were still recovering from 2017’s Hurricane Maria. Moreover, the earthquake was followed by months of aftershocks, including magnitude quakes of 5.9 on January 11, 5.0 on February 4 and 5.4 on May 2, 2020. More than 250,000 people were in need of assistance, with four deaths recorded and more than 8,000 homes damaged. The earthquakes affected the southern part of the island, including the municipalities of Guanica, Guayanilla, Yauco, Peñuelas and Ponce, in particular.

The impact of the recurring earthquakes and aftershocks affected the population’s physical and mental health. Thousands were displaced from their homes, residing in evacuation shelters and informal camps with limited to no access to safe water, sanitation systems and hygiene supplies. Many feared returning home, unsure if the structures were stable enough to withstand the continuous shaking on the island. Power outages left individuals with chronic conditions, such as



Building and power infrastructure damage, Guanica, Puerto Rico

diabetes and hypertension, without the refrigeration needed for their medications and the electricity required for life-preserving medical equipment. For infants and mothers, power outages made accessing fresh foods difficult and storing breastmilk impossible. In the wake of the earthquakes, critical needs included: mental health and psychosocial support, relief and hygiene/sanitation supplies, and healthy nutrition options.

International Medical Corps deployed within 48 hours of the magnitude 6.4 earthquake to the southern part of the island. Since then, our teams have provided mental health and psychosocial support (MHPSS); water, sanitation and hygiene (WASH) and other relief supplies; and increased access to nutrition support to approximately 7,000 people across eight municipalities and 34 evacuation shelters in the southern part of Puerto Rico. **Rotary International and Water Survival Box Limited’s generous support** bolstered our response, helping us provide more than 250 men, women and children with clean water and other supplies to date, through the ongoing distribution of the Water-Survival Boxes.

Mental Health and Psychosocial Support

Survivors of the earthquakes were at risk for psychological distress due to the chaos and loss of homes, community and livelihoods. They faced this new disaster while still coping with the effects of Hurricane Maria. Following the earthquakes and new power outages, the same sense of uncertainty and insecurity experienced after Hurricane Maria resurfaced. We deployed 49 volunteers we had previously trained in Psychological First Aid (PFA) following Maria's devastation, leveraging the investment made in the community to build back better and respond to disasters. The team provided humane, emotionally supportive and practical help to 999 individuals, including 134 children suffering from emotional distress after the earthquake. Our team also trained an additional 90 community leaders on the principles of PFA to further reach men, women and children in need within their communities. The training and assistance provided a better understanding of common reactions to stressful events, such as natural disasters, as well as how to listen in a supportive, empathetic way.



MPHSS Team, Coralys Guzman and Kimberly Hopper with a senior resident of the La Carmelita neighborhood in the Municipality of Ponce

Relief Supplies, Hygiene, and Nutrition

With homes damaged and thousands displaced, evacuation shelters and informal camps were set up, but lacked access to safe water, sanitation and proper hygiene supplies. Displacement varied, with some families living in large shelters, while others resided in small camps set up on public/private land, or remained tentatively in their homes but slept in tents or cars overnight. International Medical Corps mobilized relief supplies to reach those displaced, providing hygiene items like soap, towels, toothbrushes, shampoo, as well as tents, cots and sanitation equipment including portable toilets and showers. These supplies served 6,000 people with increased access



Pop-up camp near Las Letras de Ponce, Municipality of Ponce

to proper hygiene to help keep families healthy and prevent the spread of disease. As COVID-19 limited travel and required social distancing, International Medical Corps began providing virtual training opportunities to support improved infant and young child feeding practices, as well as preparedness for chronic diseases in anticipation of the next natural disaster.

Partnering with Rotary International and Water Survival Box Limited

In response to the devastating earthquakes, **Rotary International and Water Survival Box Limited** collaborated with International Medical Corps to donate 200 standard Water-Survival Boxes providing critically-needed WASH support in southern Puerto Rico. Working with local partners, International Medical Corps is distributing the Water-Survival Boxes to families and community organizations in some of the areas most vulnerable after a natural disaster.

COVID-19 created a set of challenges for our team. Just one week after the Water-Survival Boxes were collected from customs, the Governor declared a lockdown which significantly limited staff and beneficiary movement, and the teams and our partners' ability to distribute the supplies and train recipients. In June, the government began easing restrictions allowing our team to access the local warehouse where the items were being stored and move forward with distributions of some the Water-Survival Boxes. In addition, the mitigation measures put in place to slow the spread of the virus forced our team to innovate. We had to re-think the training and distribution plan so that social distancing guidelines could be adhered to, as well as anticipate and address the concerns of the community members who would be receiving the Water-Survival Boxes.

Arrival of the Water-Survival Boxes

The Water-Survival Boxes arrived in Puerto Rico in February 2020, but were held in customs due to concerns from the Federal Drug Administration that some of the consumable items did not have the appropriate clearance documents. More challenges followed, but luckily customs agents released the Water-Survival Boxes before the first cases of COVID-19 were confirmed in Puerto Rico.

Local Needs Assessment

Needs assessments conducted by our team revealed that the shelters and informal camps that sprung up in the earthquakes' aftermath often had inadequate access to clean water, hygiene and sanitation systems. In addition, the mountainous central corridor of Puerto Rico is not connected to the public water system, so instead most households collect water from rivers or from community wells, which rely on electricity to filter and pump water. While communities are required by the Environmental Protection Agency and the Puerto Rico Department of Health to conduct water treatment and testing, many communities lack the training and resources to follow these guidelines¹. Therefore, having mechanisms to purify water when the risk of contamination is higher, such as during a power outage, can prevent waterborne diseases like leptospirosis. Our team determined these vulnerable communities would benefit greatly from the Water-Survival Boxes.

¹ https://efc.syr.edu/wp-content/uploads/2019/12/SyracuseUniversityEFC-PR_Water_Needs_2019.pdf

II. Organization of the Distribution

Phase 1: Transporting and Storing the Water-Survival Boxes

On March 10, 2020, customs officials released the Water-Survival Boxes which were then transported to a climate-controlled warehouse in San Juan. Our team secured the warehouse space by leveraging our relationship with Project Hope.

Phase 2: Training the Distribution Team

Distributing the Water-Survival Boxes would not be possible without collaborating with a range of partners. Trust is the most important resource for reaching vulnerable communities, and the partners involved with the Water-Survival Box distribution are held in high regard in the communities where they operate.

Community leaders and local organizations play an essential role in identifying households in need. Distributions are being conducted by both International Medical Corps teams as well as through local partners, including Padma Koi Relief, Angel Wings, Llanos Tuna, Stronger Than Maria, Proyecto Matria, Asociación de Salud Primaria and Hogar Nuevo Amanecer in Arecibo. All partners received instruction on operating the Grifaid filter and were also provided with the Spanish-language video and manual developed by International Medical Corps.

Phase 3: Details of the Distribution Plan

Our team, in collaboration with local partners, identified recipients in the 35 municipalities located along the southern coast and in the mountainous western region that were included in the FEMA Disaster Declaration for the Earthquakes. While the earthquakes did affect Ponce and Mayaguez, the second and third largest cities in Puerto Rico, most of the areas affected were rural. Our team identified families/recipients with: (1) limited access to public drinking water; (2) chronic/infectious diseases; or (3) a support role in their communities. The objective was to reach both vulnerable people in need of survival supplies as well as community leaders who could be relied on in an emergency.

When drafting the distribution plan, we prioritized the safety of staff and beneficiaries. Navigating safety protocols necessary to prevent the spread of COVID-19 would mean avoiding large crowds, practicing social distancing, using masks and frequent hand washing. Our team held



Jorge Lodoño of Project Hope and Padma Koi Relief, using a Water-Survival Box to provide WASH education

calls with community leaders from the target areas to learn with what they and their community members felt comfortable. COVID-19 in Puerto Rico has been most prominent in urban centers, therefore some residing in rural areas did not want people traveling to their home. The team and community leaders agreed that setting up a distribution site would result in a large crowd and make social distancing challenging. Key stakeholders reached a decision to limit the International Medical Corps team to only two members who would drive separately to visit these beneficiaries directly at their houses.

Phase 4: Distribution of the Water-Survival Boxes

The Water-Survival Box distribution is ongoing. Our team distributed the first 100 boxes in July. To date, more than 250 individuals have been reached with the Water-Survival Boxes.



Valeria, Nutrition Promoter, demonstrates using the filtration component of the Water-Survival Boxes

Our team feared the necessary COVID-19 mitigation measures and the language barrier could become obstacles in educating beneficiaries on how to use the Grifaid water filter. In anticipation of these obstacles, the team developed a video with voiceover and closed captioning, a guidance manual and provided one-on-one demonstrations - at times from outside participants' windows. In this way, all community members, including those without access to phone or internet, received both in-person education and/or video reference materials for using the filter and Water-Survival Boxes in a future emergency or for daily use in the case of families with water insecurity.

Puerto Rico is experiencing a second-wave of COVID-19 cases and the reopening has been paused for the safety of the residents. Our local distributions must follow suit and respectfully follow these local guidelines and practices. The need for the Water-Survival Boxes remains high. Our team and partners are committed to bringing resources to areas that remain threatened by earthquakes and vulnerable to the 2020 hurricane season predicted to bring a number of storms with potential risk to Puerto Rico. Distributions will resume when it is safe to do so, and we will continue to keep you up to date.

III. Feedback

Community Feedback

Given that Puerto Rico's rural municipalities use wells and rivers to collect their water, especially during emergencies, the water filters and the multitools were some of the items most appreciated by the recipients.

The Water-Survival Boxes are useful in an emergency but also serve as valuable tools in preparedness training. Police officers in Orocovis plan to conduct sessions where they review the box contents with the community to discuss how to create their own preparedness and survival kits. This training provides an opportunity for the police and community to connect and have a conversation around community planning for an emergency. The police will have the Water-Survival Box on hand in the event of an emergency to serve their facility or to attend to a person in need.

For seniors living alone, the latches made the Water-Survival Boxes challenging to open. Additionally, the numerous items within the boxes make them quite heavy and can be challenging for certain demographics to move easily.

Quality Control

Our team found that approximately 15% of the filters collected humidity within their plastic packaging. There was no long-term damage and the filters could be safely cleaned. The team stored the Water-Survival Boxes in a climate-controlled environment, however there would have been times during transportation when they would have been exposed to the exterior heat and humidity.

Distribution Evaluation

COVID-19 provided unique challenges for distributing the Water-Survival Boxes. Our team overcame some of the challenges by implementing the following activities:

- Creating written and visual education (with video) in Spanish;
- Traveling in a small group;
- Offering community members masks and gloves if they did not have them;
- Providing education in open air setting;
- Providing recipients with a pen to keep, so that the pen was not touched by multiple individuals in a short period of time when completing the distribution form;
- Cleaning the Water-Survival Boxes with disinfectant before bringing them out into the community for distribution;
- Using hand sanitizer between homes; and
- Spraying alcohol on the boxes just before handing them to the recipients.

Even with the activities above in place, our team found that some community members did not want to wear a mask in their home. When distributions resume, we will take the necessary steps to address this and any other concerns that arise.

Case Studies



Families living in an Agricultural Cooperative who collect river water (left) and water purified using their Water-Survival Box (right)

Name	José A. Rodriguez
Age	35
Gender	Male
Family Size	5
Effects of Earthquake	Experienced damage to home from both Hurricane Maria and earthquakes. Their home is not connected to a public water source so they collect rainwater from their farm or from small rivers and pools.
How did the Box help	Most of the contents of the box are helpful for them. Their home has suffered a lot of damage from the earthquakes and past hurricanes. These items help with ongoing recovery projects.
Best Item	Water filter, tarp, rope, multitools
Anything not used	No
Additional requests	None requested



Valeria, Nutrition Promoter, and Suzanne, Nutrition Coordinator, delivering a water box to a family in Las Marias, Puerto Rico

Name	Gregorio Rosario Ramos & family
Age	60
Gender	Male
Family	4
Effects of Earthquake	Structural damage, especially on walls. Some areas of the house, the floors were lifted and exposed the ground below.
How did the Box help	Most of the contents of the box are helpful for them. Their home has suffered a lot of damage from the earthquakes and past hurricanes. These items help with ongoing recovery projects.
Best Item	Tarp and multitools
Anything not used	No
Additional requests	Construction Materials



Family from Utuado, Puerto Rico receiving their water box with the help of Charlie Vidal, a local community leader and physician

Name	Nilsa Ramos & family
Age	51
Gender	Female
Family	6
Effects of Earthquake	Structural damage
How did the Box help	Most of the contents of the box are helpful for them. Their home has suffered a lot of damage from the earthquakes and past hurricanes. It's a small house with 6 people residing in it.
Best Item	Water filter, multitools, cooking utensils
Anything not used	No
Additional requests	None requested

IV. Additional Photos



Valeria, Nutrition Promoter cleans the Water-Survival Boxes with disinfectant



International Medical Corps staff members distributing a Water-Survival Box in Utuado, Puerto Rico

V. Video Clips

Please view our Spanish language training video at: https://youtu.be/bizUJhl_Ovc

VI. Map



Municipalities reached with Water-Survival Boxes (as of July 18, 2020) -municipalities in green represent International Medical Corps distributions while those in blue represent Padma Koi distributions

VII. Conclusions

Our team thanks to Rotary International and Water Survival Box Limited for being a key part of International Medical Corps' earthquake response efforts in Puerto Rico. Your support has provided 250 men, women and children with safe water and other essential supplies. Additional beneficiaries will be reached when distributions can safely resume. With your support, we are helping Puerto Rico's most vulnerable rural populations and building the capacity of local community leaders to respond in future emergencies.

International Medical Corps is grateful for **Rotary International and Water Survival Box Limited's** support of our response and recovery efforts in Puerto Rico and look forward to your continued support of our mission.

Annex A: Distribution Form



H4
 #4 años - M
 # Gnesse - F
 # 28 - F

Standard Water-Survival Box Distribution Form

Name: Gabriel Berrios Carrión Age: 27 Sex: M

Address: Ba. Beatriz sector Lospiñal Km 49.

Contact Detail: 787-486-2400

Location/ Health Facility: Aguas Buenas.

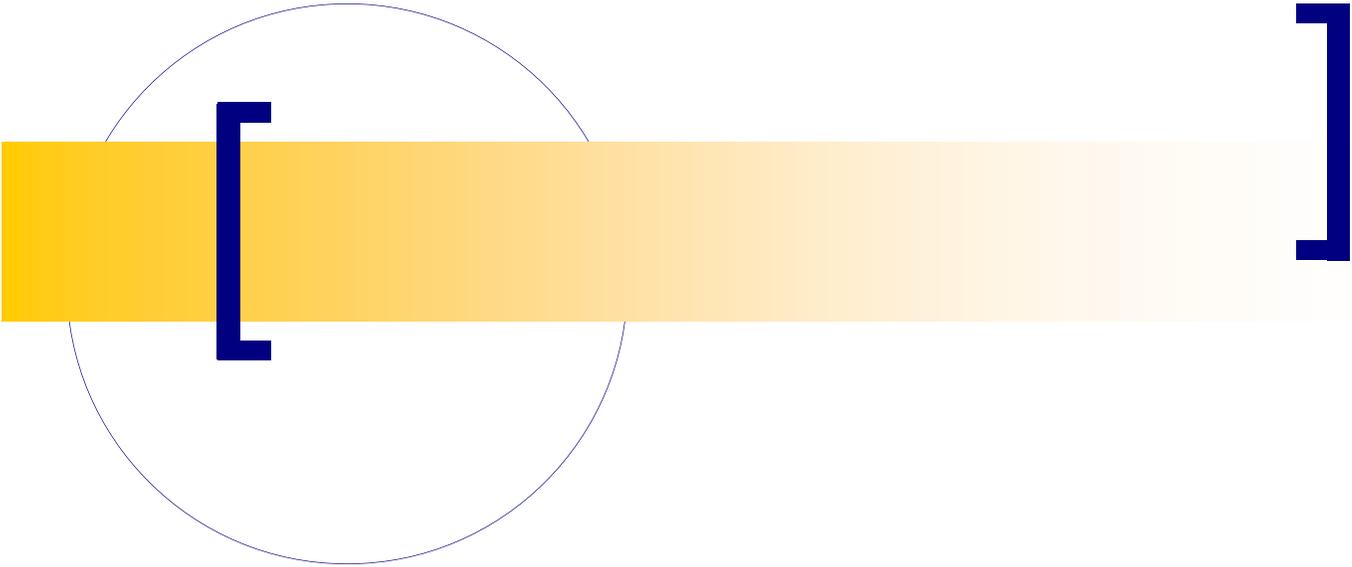
Acknowledging receipt of the Standard Water-Survival Box with the following contents:

Item	Quantity	Item	Quantity
Box and lid	1 pc	Hygiene kit for females	1pc
Aqua filter-water-purification kit	1 set	Cable ties x 10	10 pcs
Water carrier	2 pcs	Claw hammer	1 pc
Kitchen set	1 set	Nails x 100 @ 50mm	1 box
Cotton material - 2 meter length	1pc	All-in-one (shovel, saw, axe)	1 set
Sewing ki	1pc	Insulation tape	1pc
Scissors	1pc	Galvanized wire	1pc
Solar lamp	1pc	Lock knife	1pc
Antiseptic wipes	1pc	Tarpaulin 12'x8'	1pc
Bandage- conforming	1pc	Pliers	1pc
Fabric dressing strip	4pcs	Rope- 30 meters	1pc
Soap tablets	4pcs	Poncho	5pcs
Toothbrushes	4pcs	Pencils	4pcs
Toothpaste	1pc	Notepad	1pc

Received by:

Name/Signature: [Signature]

Date: 7/15/20.

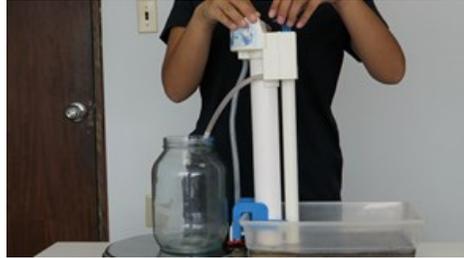


MANUAL DE USO: CAJA DE AGUA Y SUPERVIVENCIA



Demostración de Uso: Grifaid Family Aquafilter

Paso 1: Coloque el filtro en un contenedor con agua. El filtro puede ajustarse a una diversidad de tamaños.



Paso 2: Ajuste el filtro a la medida del borde del contenedor soltando las perillas.



Paso 3: Antes de comenzar a bombear el agua, asegúrese que el tapón rojo este cerrado.



Paso 4: Coloque el tubo con el tapón azul dentro de un contenedor limpio. Comience a bombear hacia arriba y hacia abajo con la manivela azul con un movimiento estable.



Paso 5: Una vez bombeada la cantidad de agua necesaria, la puede utilizar para cocinar o beber.* La calidad del agua bombeada va a depender de cuan contaminada estaba. Para mayor seguridad, hierva el agua al menos 1 minuto y luego utilícela para beber.

Mantenimiento: Grifaid Family Aquafilter

Para mantener su filtro en optimas condiciones, se debe hacer un lavado a contracorriente (“backwash”) del filtro de agua todas las noches. A continuación los pasos a seguir:

Paso 1: Asegúrese que el tapón rojo y el tapón azul estén cerrados. Haga 3 bombeos de agua.



Paso 2: Coloque el tubo con el tapón rojo dentro de un recipiente y abra el tapón (debe salir una cantidad de agua a presión). Mantenga el tubo azul cerrado.

Paso 3: Haga 8 bombeos consecutivos dentro del recipiente.



Paso 4: Cuando haya terminado, asegúrese que ambos tapones estén debidamente cerrados.

Mantenimiento: Manivela

Para mantener su filtro en optimas condiciones, se debe hacer un lavado a contracorriente (“backwash”) del filtro de agua todas las noches. A continuación los pasos a seguir:

Paso 1: Para remover la manivela azul, hale fuertemente la cobertura plástica que la sostiene al componente principal.



Paso 2: En la base de la manivela, encontrara anillas de goma adicionales en caso de necesitar reemplazos.



Paso 3: De necesitar lubricación, la unidad cuenta con un suplido de grasa. Lubrique ligeramente con la punta del dedo el borde de la anilla de goma de la manivela.



De tener algún inconveniente con el contenido de la caja, o si desea recibir mas información, puede comunicarse con la Srta. Davita Petty de International Medical corps a
dpetty@internationalmedicalcorps.org o al
(651) 323-8977

