

The logo features a large, stylized red graphic element on the left, resembling a square with a horizontal bar extending to the right and a vertical bar extending downwards. The year '2018' is written vertically in light blue text within the vertical bar. The word 'NATIONAL' is in light blue text above the horizontal bar. The name 'RYAN WHITE' is in large, bold, white text across the middle. Below it, 'CONFERENCE ON HIV CARE & TREATMENT' is written in light blue text.

2018 NATIONAL
RYAN WHITE
CONFERENCE ON HIV CARE & TREATMENT

Disaster Management: Resilience and Teamwork to Guarantee Continuum of Healthcare

Surviving hurricanes Irma and Maria: Tales from a resilient CBO in Puerto Rico

Vivian Tamayo, MD

Medical Director PR CONCRA, San Juan Puerto Rico

Hurricane Maria: Lessons Learned from Centro Ararat, Inc., Puerto Rico

Romano Y Baroni – Research & Special Project Coordinator

Ivan Melendez-Rivera – Chief Medical & Operating Officer

Centro Ararat, Inc Ponce Puerto Rico

Two Cities, 74.5 Miles, One Disaster: Resilience and Teamwork United to Maintain ART Adherence

Ivan Melendez-Rivera, Sylvia Rodriguez, Betzaida Torres,
Richard Torres

Centro Ararat, Inc Ponce, Puerto Rico

Objectives

- Identify opportunities to improve your pre-disaster evaluation and damage mitigation plan
- Review the clinical considerations to be taken after a catastrophic atmospheric event.
- Describe different administrative and clinical strategies used to guarantee continuity of care for PLWHIV after a natural disaster.

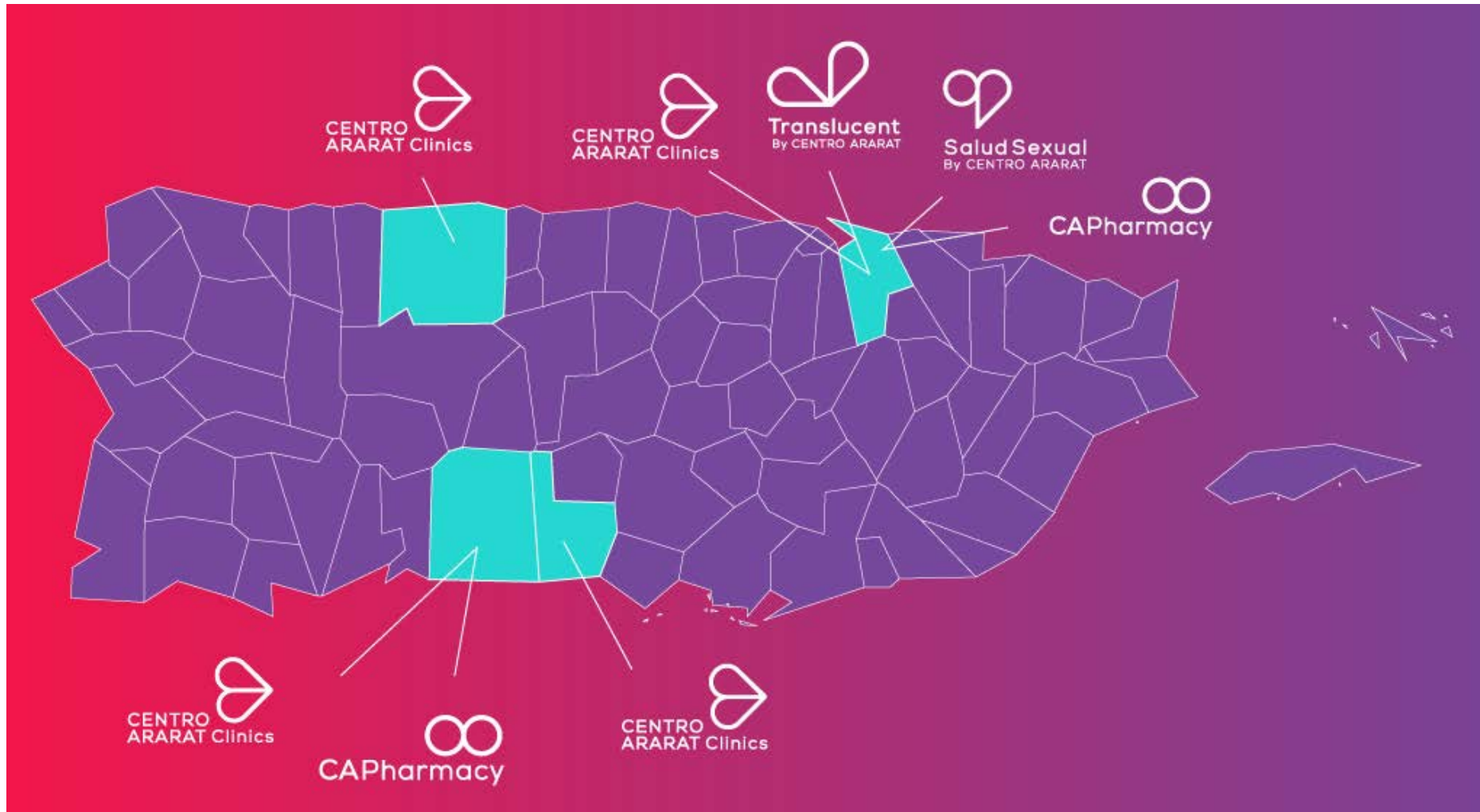
Centro Ararat, Inc

Centro Ararat, Inc., is a non-profit private, institution with a mission to provide access to comprehensive community-based primary care, mental health care, preventive healthcare and social services for diverse populations in underserved communities throughout Puerto Rico. Founded in Ponce, Puerto Rico in 2001. Centro Ararat currently services more than 2,500 patients Islandwide, of which, 855 are PLWH.

- RWHAP Part A, B, C & F (SPNS) Provider
- RWHAP Part C funded since 2014
- 4 Primary Care Clinics, 2 Special Care Clinics, 2 Pharmacies (340B)



CENTRO ARARAT, INC.



Puerto Rico Community Network for Clinical Services, Research and Health Advancement (PRCONCRA)

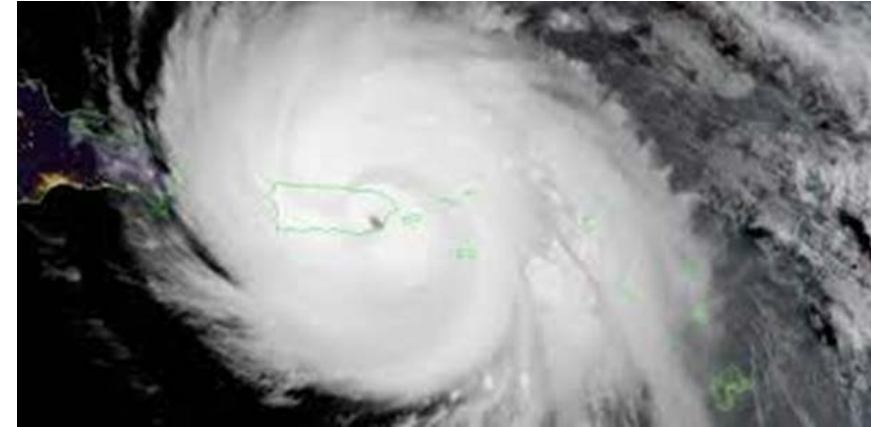


PRCONCRA

- Established in 1990. Serves approximately 900 HIV+ patients/yr.
- Multi-funded (RW A, MAI, C, D, legislative funds, CDC, Private funding), non-profit, CBO located in San Juan, PR. One of the largest HIV clinics in the San Juan Metropolitan Area
- Provides comprehensive services to PLWHIV and people at-risk for HIV infection, with an emphasis on youth, women and the LGBTTQI population.
- Services include, among others:
 - Primary care and Specialized care: Internal Medicine, Ob-Gyn, Infectious Diseases
 - Mental health/ Dental care
 - Medical case management
 - Nursing, vaccinations
 - Access to medications through contracted Pharmacy and 340B discount
 - Transportation and child care services
 - HIV testing, prevention (including PrEP) and outreach services

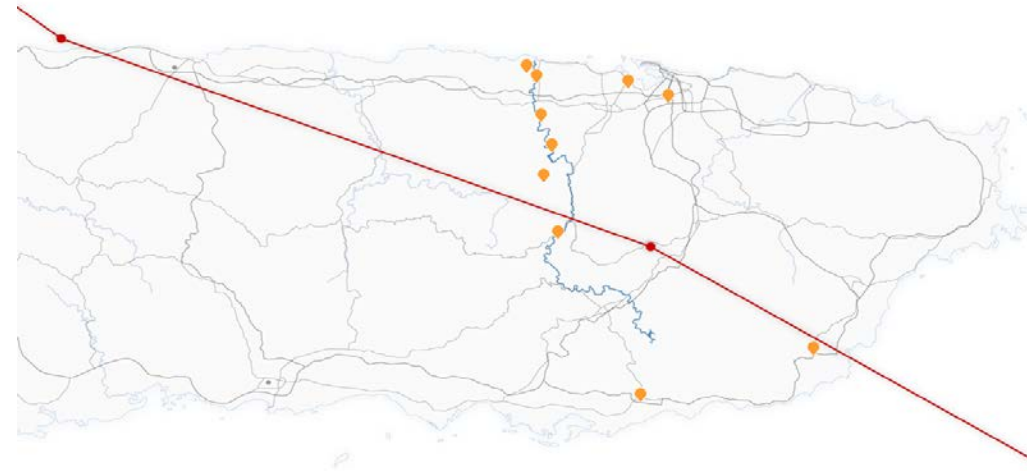
Introduction

- We are all vulnerable to the forces of nature, be it in the form of hurricanes, tornados, earthquakes, flooding, etc.
- No one is fully prepared for an event of this magnitude!
- Following a natural disaster, compromised drinking water, decreased access to safe water/food/shelter increase the risk of the emergence of infectious diseases
- Difficulty in maintaining sanitary conditions and accumulation of solid waste and debris increase the risk of pest (rodents, mosquitoes) outbreaks, and their associated vector-borne diseases
- As providers, it is imperative to be familiar with the most common maladies following a catastrophic event and to educate our patients on how to prevent them, identify them and when to seek medical advice



Hurricanes Irma and Maria

- Hurricane Irma- Category 5 Hurricane skirted the northeastern part of Puerto Rico on September 8th 2017, leaving 1 million residents without electric power and many hospitals using back-up generators.
- Hurricane Maria- Hit Puerto Rico as a powerful category 4 hurricane with sustained winds of up to 155 mph, as reported by the National Weather Service. It made landfall in the southeast corner of Puerto Rico, engulfing the entire island in a matter of hours. As a result the entire island was left without electric power and no potable water. All cellular services were down, leaving the entire population with limited communications.



Map of Puerto Rico, indicating the path of the eye of Hurricane Maria. The New York Times, Sep. 26 2017

Pre-Impact Phase

- Secure Institution and Pharmacy Facilities
 - Verification of battery power backup/generator functioning
 - Inventory handling and storage
 - Back-up pharmacy software in the cloud
 - Unplug all unnecessary electronic devices
 - Secure files and documents
 - Water stock and battery lanterns in all clinical area
 - In floodable areas, secure valuables above expected flooding level

Pre-Impact Phase

- Workflow synchronization- delegating specific task to Personnel
 - **Pharmacy software prescriptions reports**
 - Prescriptions reports with a range of two weeks due for immediate fill and dispensation
 - Additional fifteen days report printed anticipating possible power failure assuring and minimizing medication error and adherence interruption.
 - **Pharmacy software inventory reports**
 - Increase inventory quantities to secure access to medication
 - Scheduled drug orders with wholesalers to be automatically delivered after the hurricane to our pharmacies.
 - **If using a contracted pharmacy**, provide instructions as to how to handle medication refills: no patient would be left without medications!

Pre-Impact Phase

- Workflow synchronization- delegating specific task to Personnel - **Continuation**
 - **Contact clients and educate about emergency service plan**
 - Prescription status
 - Patients profile information updated
 - Alternate telephone (e.g. Family member)
 - Physical address
 - **Services provided prior Hurricane (Centro Ararat)**
 - 600 Prescription Dispensed
 - 100 medication delivered at the pharmacy

Pre-Impact Phase

- Workflow synchronization- delegating specific task to Personnel - **Continuation**
 - **Case Management**
 - Patient list was printed to have on hand in case it became necessary to contact patients after the hurricane.
 - The list included name, phone number and physical address.

Pre-Impact Phase

- Workflow synchronization- delegating specific task to Personnel - **Continuation**
 - Case Management
 - Case Management Staff, in collaboration with the reception area, established communication with each of our patients to:
 - Corroborate their well-being and how prepared they were for the passage of the hurricane.
 - Verified that each of our patients were supplied with medicines and food.
 - Corroborated that they lived in safe places and if not, they would go to some place where they would be safe.
 - Medications were delivered to patients who needed it, so they would not run out of their medication during the emergency.

Pre-Impact Phase

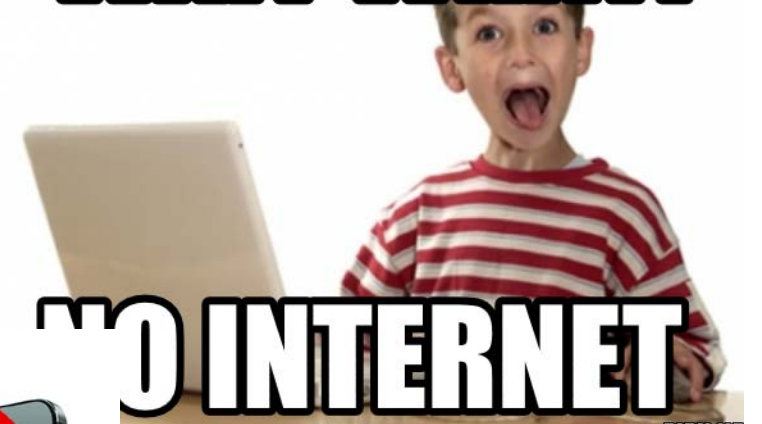
- Emergency pharmacy and Clinic schedule (Centro Ararat)
 - Monday, September 18th, 2017 open 8am to 9pm
 - Tuesday, September 19th, 2017 open 6am to 2pm
 - September 20th to September 21st closed due to hurricane
 - Friday, September 22nd open 8am, closing hour according service's needs.

Response

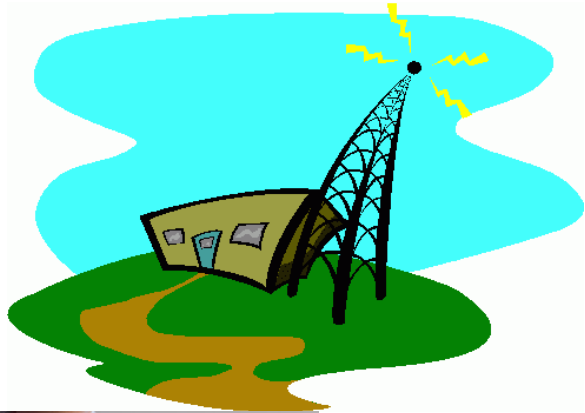
What we faced on Friday, September 22, 2017



WAIT WHAT!



Response



Assessment tool

Please answer the following Questions:

	YES	NO
1. Do you live in a flood-prone are, or in an área prone to landslides?		
1. Do you live in a Safe Housing Structure?		
a. C		
1. I		
1. D		
1. D		
1. a		
a. V		
1. I		
to deliver prescription refills or any other service that may be necessary so that your therapy and medical treatment is not affected?		
1. How many people live with you or are dependent upon you for their care?		



Response

- **Pharmacy services Response**

- Identifying patients pending for prescription pickup from Pre-Impact phase
- New Prescriptions dispensed and labeled manually
- Prescription information was documented in excel table for future billing
- Patients written signatures were taken in a log

Response

- **Pharmacy services Response (Contracted Pharmacy)**
 - ADAP's contingency plan was activated
 - All patients were dispensed their medications, regardless of having a registered refill
 - Direct communication between Pharmacy and PRCONCRA clinicians and staff was vital
 - A clinician was transferred to the Pharmacy for expedite handling of prescriptions

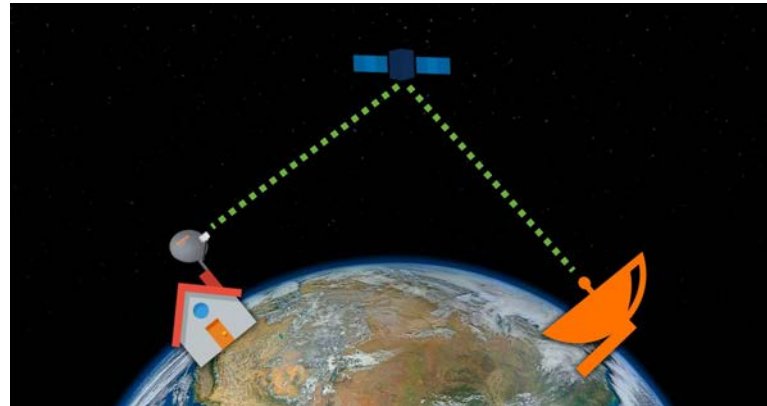
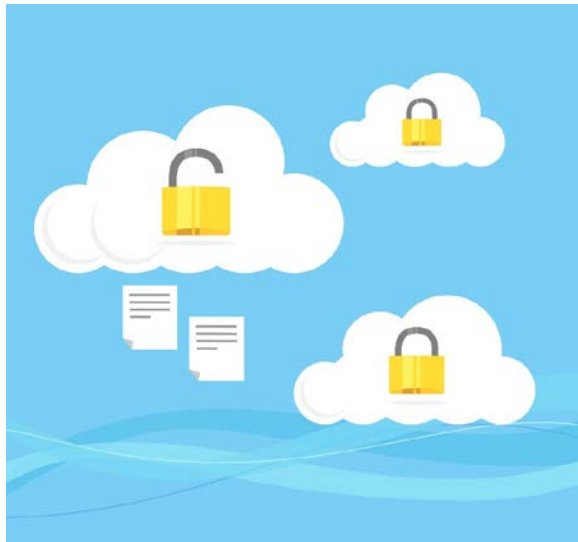
Response

- **Case management as First Responders - Outreach team**
 - In the first weeks, even without power, Case Management staff worked in coordination with pharmacy personnel for the delivery of medicines to the patients who could not reach Centro Ararat.
 - Telecommunications was practically null, as there was no available cell phone services, television, internet, and most radio stations were offline. we proceeded to visit patients in their home for the delivery of medicines and purchases of non-perishable food and necessities, including roof tarps. **Needs assessments** were developed to identify additional needs the patients may have, in order to better plan follow-Up or NEXT response.

Response

- **Case management as First Responders - Outreach team**
 - The needs of each patient were assessed and identified from the needs assessment form by the case management at each clinic.
 - In the case of Translucent, the team visited patients to deliver ART and hormonal therapy.
 - In the buprenorphine program at Juan Diaz, patients were reached to prevent runout of buprenorphine and diminish the risk of relapse.

Response Administration Next Response (Recovery)



Response

Administrative (Next Response)

Friends and Partners:

The Hurricane María was a Category 4 storm, who devastate our Island as most of you know by the news. Fifty-four municipalities have been declared as a Disaster Zone and the other twenty-four still under evaluation. Our Island is suffering, and the humanitarian crisis is just around the corner.

Our immediate needs are:

1. Three (3) Power generators and Diesel
2. Data connections, Phone.

This is the situation as today, Thursday, September 28, 2017, day number nine (9) after Maria.

General:

1. Power: 95 without service
2. Potable water: 65% without service and doesn't include areas with water, but w/o power to pump the water to the areas
3. Telephone: No lines available to the Island except for the North.
 - a. Landlines – only one company working at less than 30% capacity. Calls have to be done by operator
 - b. Cell phone – Communication is only in the metro area (San Juan) and with a difference on reception base on particular location.
4. Internet: No service around the Island with some exception on San Juan. Mayor internet companies are not able to provide services even those with fiber optic. Not possible to access HER or prescribing
5. Cash flow: Everything at must be paid with cash. Last Tuesday banks open some of their sites with restricted hours (10:00am to 2:00pm) and withdrawal limit of \$100 or \$200 dollars depending on the institution. ATM start to works, but only those who are located in the physical area of the financial system.
6. Gasoline, Diesel, and Gas: Are available, but distribution is the problem. Metro area has more facilities and South is the second. The most aggravated areas are the center of the Island where nothing is getting there.
7. Criminality: Increases as part to humanitarian crisis for gas, water, and cash for groceries

Centro Ararat as Institution

1. See attached document for event ledger.
2. Medical, Pharmacy, case management and psychological services provided from 9:00am to 1:00pm since September 25th at all facilities
3. No damage to networks and the data is back up w/o problem
4. No access to HER or e-prescribing. Everything is done on paper
5. To have communication by phone or internet, Ponce and Juana Diaz personnel have to move to San Juan.
 - a. Someone from Ponce travels daily to San Juan to link the communications between clinics
6. No delivery available from ADAP warehouse
7. No delivery available outside of Metro area from the major drug distribution company "Cardinal Health."

September 28	Power	Water	Telephone	Internet	Providing Service
Ararat Ponce	NO	NO	NO	NO	YES
CA Pharmacy Ponce	NO	NO	NO	NO	YES
Faith – Juana Diaz	NO	YES	NO	NO	YES
HOPE – San Juan	NO	YES	Some communication by cellphone	NO	YES
CA Pharmacy San Juan	NO	Yes	Some communication by cellphone	NO	YES

PLEASE let us know if you can help us in this disaster and continue to hold the patients we care for in your actions and hearts.

If you have any questions or need any additional information, please feel free to reach out our Chief Technology Officer at SMelendez@centroararat.org or

Please CC all communications because I will be traveling daily to San Juan to get the proper connection. Also, you can try to reach me on my cell phone Text is the best way of communication.

Sincere yours;

Ivan

Pharmacy NEXT Response

- Travel to San Juan to access ADAP distribution center.
- Arrange Medication delivery to the pharmacy by wholesalers
- Travel to the San Juan for internet access and process prescriptions to health insurance.
- “Portable CA Pharmacy” accessing pharmacy software in a cloud with all printers connected to a laptop.
- Continue patient assessment as they come to pharmacy for medications pickup.

Case Management NEXT Response- After Assessment

- Until direct assistance could be delivered, patients were given gift cards from Walmart, Econo Supermarkets and Marshalls.
- Once communications was somewhat reestablished, patients were given furnishings that included: Mattress, stove, washing machine, refrigerator, futons, dining set or kitchen cabinets, etc.
- Several patients identified that they lost part of their residence, they were offered help with rent payment for 3 to 6 months, depending on the need, and until FEMA helped them.

Case Management NEXT Response- After Assessment- Continued

- Air plane ticket were provided to relocate some of the patients to mainland to continue their treatments.
- A total of 436 HIV patients were affected, including 65 participants of the Translucent Clinic.
 - Impacted patient were from our 3 Clinics: Ponce, San Juan and Juana Díaz.

Case Management NEXT Response- After Assessment- Continued

- Obstacles:
 - Although the resources to purchase were available, we were faced with the obstacle that furniture could not be quickly delivered to the identified patients because:
 - Furniture stores did not have the requested merchandise,
 - The furniture delivery companies were occupied in disaster relief.

Clinical Implications

Vivian Tamayo, MD



Puerto Rico

CONCRA

Community Network for Clinical Services,
Research and Health Advancement

Clinical Implications - Objectives

- Underline the need to discover unconventional spaces to provide access to healthcare following a natural disaster
- Discuss the most relevant health concerns following a catastrophic atmospheric event. Discuss the specific challenges faced by PLWHIV after a catastrophic event
- Describe PR-CONCRA's strategies to ensure continuity of care for PLWHIV after hurricane Maria

“La necesidad es la madre de la inventiva...”
-Puerto Rican proverb

PRCONCRA



Communicable diseases after a natural disaster

- Factors that cause the spread of communicable diseases after a natural disaster:
 - Shortage of fresh food results in malnutrition and weakens the immune system
 - Limited access to safe water and lack of proper sanitation increase risk of infections and gastrointestinal problems (transmitted by direct contact with contaminated water)
 - Crowded living conditions and poor hygiene
 - Structural damage to health facilities and the loss of medical equipment and medicines



Water safety after a storm

- Safe water for drinking, cooking and personal hygiene includes bottled, boiled, filtered or treated water
- In PRCONCRA,
 - Privately donated water bottles and filters were distributed among patients and employees
 - Printed educational material provided by the AETC about water safety, among other topics, was distributed to our patients

AFTER THE STORM SAFETY

Emergency Information: 1-800-342-3557
floridadisaster.org

SAFE WATER

For drinking, cooking, washing wounds and brushing teeth, use bottled water, boiled water or disinfected water.

7-8 drops (about 1/8 tsp.) bleach per gallon of water.



DISINFECTING

1. Add 8 drops of plain unscented house hold bleach (4-6% strength) or 7 drops of high strength bleach (8.25% strength) per gallon of water.
2. Mix and let stand for 30 minutes.
3. If the water is cloudy after 30 minutes, repeat once.

FOR BOIL WATER NOTICES

Hold a rolling boil for 1 minute to kill organisms.



FLOOD WATER or DIRTY WATER

No one should play in flood water.

Soak dirty toys in clean, disinfected water.



WASH YOUR HANDS OFTEN

Use soap and safe water.

Wash hands before eating, after using the toilet and when cleaning and handling things dirtied by floodwater or sewage.

Keep open cuts or sores clean.

With clean hands, apply antibiotic ointment. If redness, swelling or drainage develops, see a doctor.



Food safety after a storm

- Foodborne illness (food poisoning) due to food contaminated by flood water or perishable food not held at safe temperatures
 - Food with an unusual odor/color/texture should be thrown out
 - Perishable foods (meat, poultry, fish, eggs) should be thrown out after 4 hours of power outage
 - Food in cardboard containers should be thrown away
 - Thawed food with ice crystals can be refrozen or cooked
 - Unopened freezers keep food safe for 24-48hrs

Power Outage Food Safety Tips

Reduce your risk of illness and minimize food spoilage by following these guidelines.

Keep a thermometer in your refrigerator and freezer

Fridge temp. **40°**

Freezer temp. **0°**



A cooler can help store food safely if power is out more than 4 hours

Prepare by freezing containers of water to help keep food cold



ready.ga.gov



When power is restored, visit Foodsafety.gov for guidelines on what food to keep. **But when in doubt, throw it out.**

Ready. Georgia 

Food safety after Maria: A collaboration with Bill's Kitchen

In PRCONCRA,

- Warm lunches were served to patients, staff and community for 3 months
- Canned, non-perishable groceries were donated to patients and staff

PRCoNCRA staff packing non-perishable groceries to distribute to staff, patients and immediate community.



Health/safety risks after a natural disaster

- Structural damage and debris
- Floodwater and stagnant water
- Mold
- Environmental toxins

One of PRCoNCRA's door ripped by category 4 winds



Common illnesses after a natural disaster:

Leptospirosis

- Bacterial infection that may cause serious illness (liver failure, meningitis, severe pulmonary disease, ARDS, death in 5-10% of cases)
- Natural hosts: rodents, livestock and dogs. Rodents are the most common reservoirs.
- Human infection from exposure to environmental sources, such as animal urine, contaminated water or soil, or infected animal tissue. Portals of entry include cuts/abraded skin, mucous membranes, or conjunctivae.
- Anyone who has been in contact with floodwater, contaminated freshwater (rivers and streams) or soil could be at risk for infection.

Common illnesses after a natural disaster: Leptospirosis

- Leptospirosis prevention:
 - Avoid contact with water or soil that may contain animal urine
 - Treat potentially contaminated water prior to ingestion
 - Cover any cuts or abrasions and wear protective clothing, especially footwear, if you must wade in floodwaters or other water that might be contaminated
 - Chemoprophylaxis with doxycycline (200 mg orally, weekly), begun 1–2 days before and continuing through the period of exposure, might be effective in preventing clinical disease

LEPTOSPIROSIS

What is leptospirosis?
Leptospirosis is a possibly fatal bacterial disease that affects human and animals alike. It is caused by spiral shaped bacteria of the genus *Leptospira*. It spreads through the urine of infected animals. It is prevalent in fresh water, soil, and mud in tropical areas.

How do humans get infected?

1. contact with urine (or other body fluids, except saliva) from infected animals
2. contact with water, soil, or food contaminated with urine of infected animals

How does it spread?
Rats and other rodents are the most common carriers of the bacteria but it can infect all kinds of wild and domestic animals including humans. The urine of these animals can contaminate soil and mud and can be spread rapidly to human populations through fresh water or flooding.

How do I prevent leptospirosis?

1. Do not swim or wade in water that might be contaminated with animal urine.
2. Do not come into contact with potentially-infected animals.
3. Wear protective clothes and equipment
4. Disinfect contaminated surfaces
5. Take the antibiotic prophylaxis (for exposed persons in high risk areas)

What are the possible complications of leptospirosis?

- Meningitis
- Respiratory Disease
- Liver Failure
- Kidney Damage
- DEATH

What are the symptoms?
Symptoms usually occur 2 days to 4 weeks from time of exposure. Leptospirosis can cause a wide range of symptoms in humans, including:

- High fever
- Headache
- Chills
- Muscle aches
- Vomiting
- Jaundice (yellow skin and eyes)
- Red eyes
- Abdominal Pain
- Diarrhea
- Rash

What if I'm infected?
If you or a loved one exhibits symptoms of leptospirosis, consult a doctor immediately.

How long is the recovery time?
The illness may last from a few days to 3 weeks or longer. When left untreated, it may take several months.

Communicable diseases after a natural disaster: Conjunctivitis

- “Pink eye”
- Viral or bacterial etiology
- Highly contagious, especially among people in close quarters
- Symptoms:
 - Pink/red, watery eyes
 - Itchy or scratchy eyes
 - Discharge (variable)
 - Crusting of eyelids or lashes
- Prevention:
 - Frequent hand washing with soap and water/ hand sanitizer
 - Avoid touching eyes
 - Not sharing items with an infected person



Communicable diseases after a natural disaster

- Gastroenteritis/ infectious diarrhea
 - Increased incidence of acute diarrhea when access to electricity, clean water, and sanitary facilities are limited. In addition, hygiene practices may be disrupted and healthcare seeking behaviors may be altered.
 - The primary goal of treating any form of diarrhea—viral, bacterial, parasitic, or non-infectious—is preventing dehydration
- Dermatological conditions:
 - Dermatitis
 - Scabies



Photo: El Heraldo, Empeoran las condiciones en PR por el Huracán Maria

Communicable diseases after a natural disaster: Mosquito-borne diseases

- Mosquito-borne diseases: dengue fever, chikungunya, zika, west nile
- Flooding usually causes large populations of flood water(nuisance) mosquitoes which do not spread diseases caused by viruses
- Mosquitoes that spread disease appear after 2 weeks
- Prevention of mosquito bites:
 - Wearing long sleeves and pants
 - Use door/window screens to keep mosquitoes outside
 - Use appropriate insect repellent (DEET, picaridin, IR3535, among others)



Mental health issues after a natural disaster

- Exacerbation of pre-existing mental disease & new stress related symptoms commonly flourish after a catastrophic event. The elderly population is at highest risk of these conditions.
- The most common mental health conditions encountered are:
 - Increase in suicide attempts and suicide rates
 - 250% increase in suicide hot line calls after hurricane Maria
 - > 80% increase in suicidal ideation
 - General anxiety
 - Depression
 - PTSD
 - Psychosomatic symptoms associated with stress:
 - Palpitations/ Angina / SOB/ Insomnia/ Lack of appetite



Photo: WNYC Studios, In Puerto Rico, A Mental Health Crisis After Hurricane Maria

Keeping your staff healthy

- To guarantee quality services in the setting of catastrophe, it is imperative to look out for the well-being of our staff
 - Safety of our staff was one of our priorities
 - The support and presence of our BOD was essential
 - Access to basic commodities (non-perishable food, water, batteries, gasoline, hot lunches)
 - Mental health services were made available
 - Baby sitting services for our staff's kids
 - Self-care activities (ex. massages) were carried out
 - Aid in filling-out FEMA applications (staff and patients)
 - Certification of essential clinical staff was drafted to simplify access to gasoline
 - Hours of operation took into consideration hazardous roads conditions



Management of chronic conditions after a natural disaster: Ensuring continuity of care

- Patients with chronic conditions most prone to complications
- Continuity of care essential to avoid decompensation. Ex:
 - Limited access to HD centers was responsible for the death of 3 to 4 ESRD patients daily
 - Insulin stability may be altered if kept un-refrigerated
- Factors which might affect continuity of care among PLWHIV:
 - Access/Transportation limitations to healthcare facilities/pharmacies
 - Destructed/closed medical facilities
 - Inter-agencies collaborations
 - Disclosure issues if being forced to re-locate to friends or family's houses
 - Lost of medical documentation (personal files, medical records, etc)



Ensuring continuity of care for PLWHIV after a natural disaster: The PRCONCRA experience

Within 7 days, medical services were reestablished in our contracted pharmacy. Most of the services were re-instituted within 2 weeks.

Clinic hours were restricted to hours of sunlight due to lack of electrical power

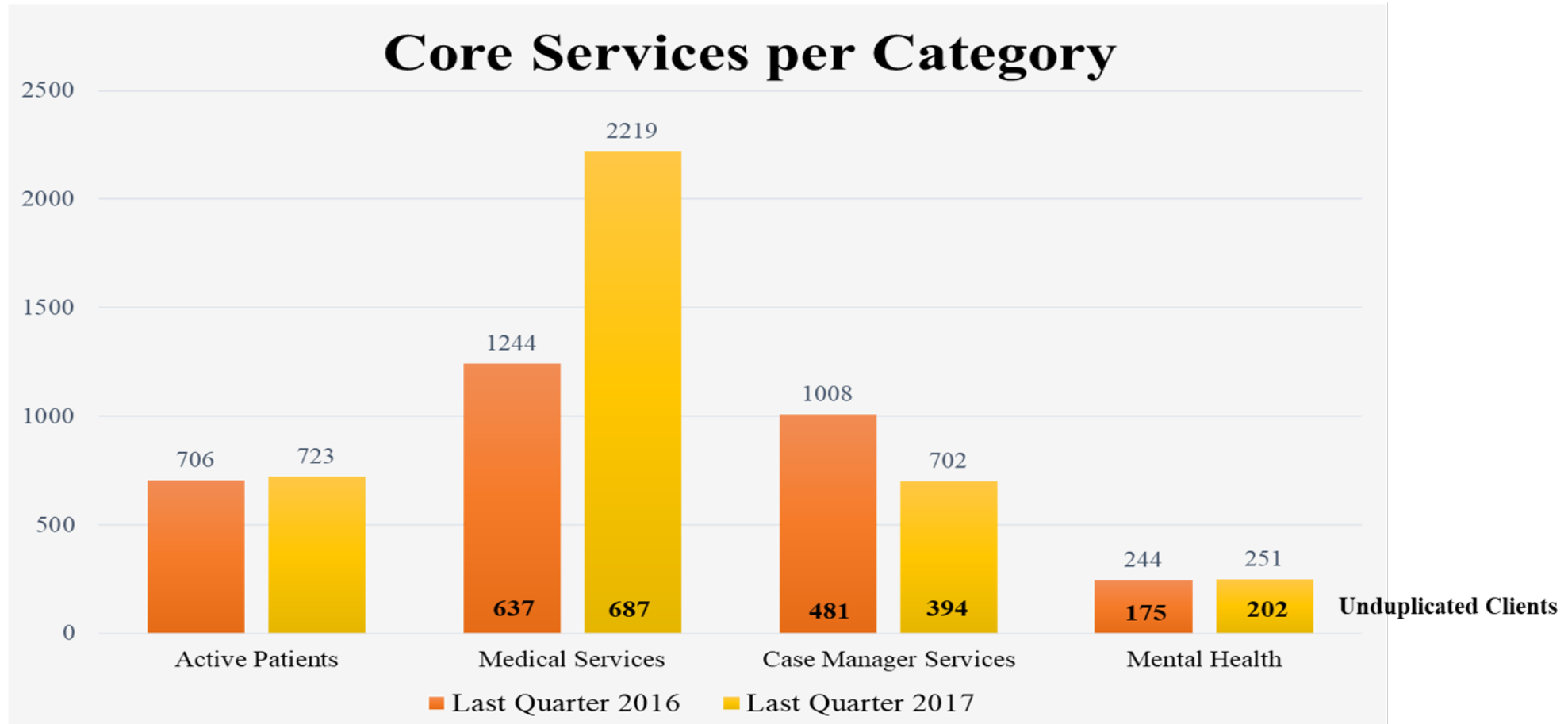
Areas of priority:

- maintain access to medical services
- guarantee unrestricted access to ARV therapies
- access to psychological services
- access to nutritional evaluation and supplementation.

Strategies and best practices employed to meet these priorities:

- unrestricted access for medical evaluations by accepting all walk-in patients,
- having a provider located at our contracted pharmacy,
- ADAP Program's flexibilization for medication refills,
- In-house mental health specialist during all clinic hours,
- Collaborative agreement with Bills Kitchen

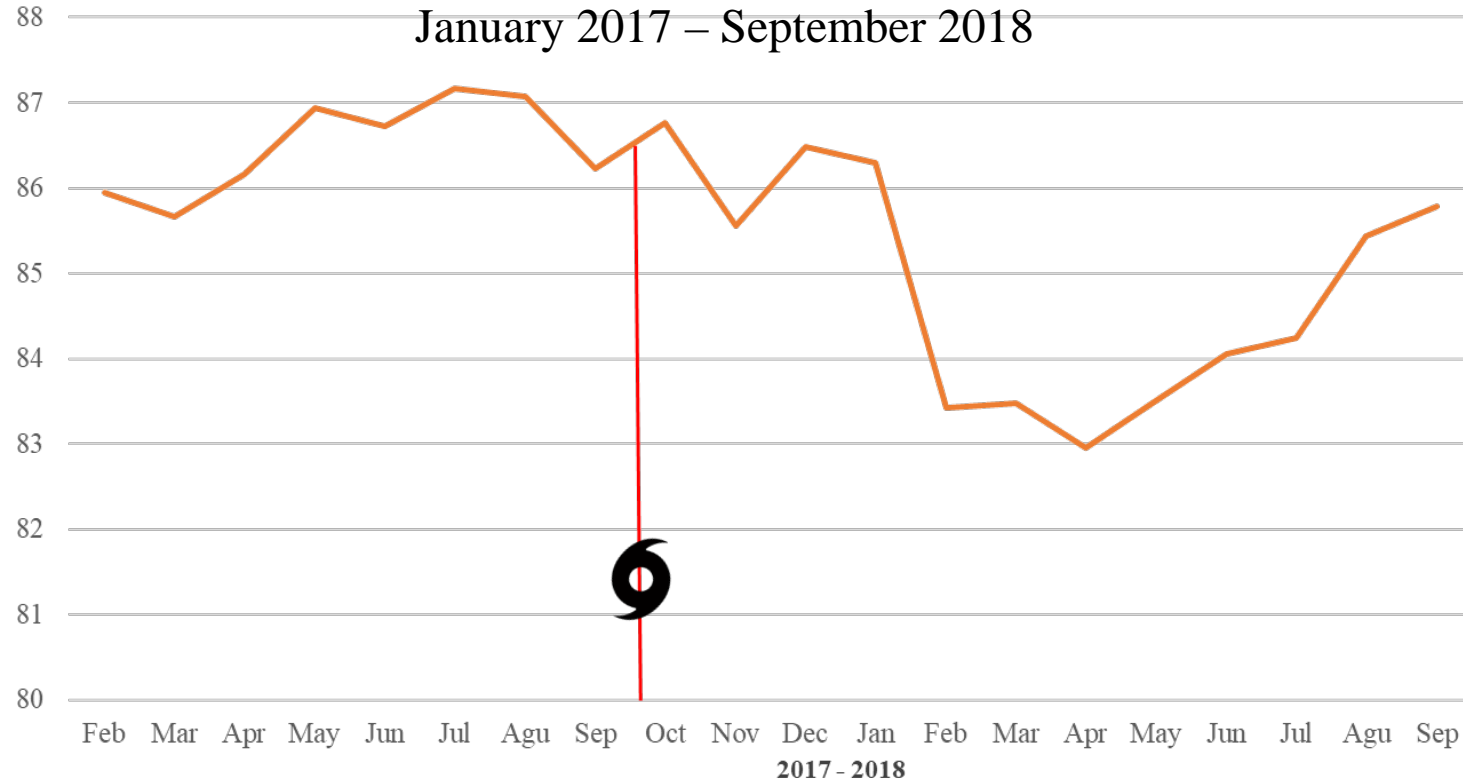
PRCONCRA



PRCONCRA

HIV Viral Load Suppression

January 2017 – September 2018



Maria's unaccounted victims: The “excess deaths” controversy

- 64: initial local Government death count
- 1,000: NY Times
- 2,975: George Washington Univ
- 4,645: Harvard School



Fiscal Impact: Centro Ararat



- Pre Impact
 - Food and Emergency supplies - \$3,000 dollars
 - Money for emergency - \$10,000 dollars
- Post Impact
 - Food and Emergency supplies - \$95,000 dollars
 - Money for Furniture and emergency assistance - \$95,000 dollars
- Damage Mitigation
 - Hughes Satellite and satellite phones acquisition and maintenance
 - \$48,000 dollars
 - Power generation
 - \$72,000 dollars for three high capacity Power generators
 - Solar panel needed at one of the facilities
 - Quotation of \$50,000 dollars

Total spend
\$247,500

Fiscal Impact of Hurricane Maria: PRCONCRA

- Estimated total losses/expenditure: \$285,000.00
 - Lost materials, equipment: \$50,000.00
 - Structural damages: \$80,000.00
 - Services: \$55,000.00 (approx. in-house daily warm breakfast/ lunches/ snacks/nutritional supplements/water/first aids kits/hygiene products,etc)
 - Damage mitigation/preparedness for future events:
 - Water tank, power generators, etc: \$100,000.00
- Fund-raising efforts (Hurricane Relief):
 - Requested: \$262,839.87
 - Approved: \$193,477.00
 - Received: \$177,477.00

Thank to our collaborators

- AIDS United
- HHS- Regional Resources Network
- Maria Fund
- Elton John Foundation
- Proceed
- Catholic Charities of New York
- Bill's Kitchen
- Drug Policy Alliance
- Gilead
- Anonymous funder
- Cicatelli Associate
- El Punto en la Montana
- SSSS The Science of Sexuality
- Asociacion de Salud Primaria de PR

Emergency/Disaster Management Cycle



- The Disaster Management Cycle refers to an ongoing process, aimed at reducing or eliminating the impact of a disaster, react and take steps to recover from the disaster.
- Most commonly it is made up of 4 steps:
 - Preparedness
 - Response
 - Recovery
 - Mitigation

Emergency/Disaster Management Cycle

- **Preparedness**

- Activities prior to a disaster- Plans or preparations made in advance of an emergency.
 - Examples: Secure Institution and Pharmacy Facilities, Task delegation to Staff members, Stocking Pharmacy, Medication Dispensation prior to Hurricane Impact, Contact clients to inform about emergency plan.

- **Response**

- Activities during or immediately after the disaster- stabilize situation and provide needed assistance.
 - Examples: Ensure safety and wellbeing of employees, assess infrastructure, reach out to the patient population and provide medication and basic needs items, gather needs assessment forms to plan ahead.

Emergency/Disaster Management Cycle

- **Recovery**

- Activities following a disaster- Once the immediate threat to life, property and environment have ceased, recovery may start.
 - Examples: Re-establish communications, satellite internet installation, Satellite phones, working hot spots, update and request support from stakeholders

- **Mitigation**

- Activities that reduce the effects of disasters- Be proactive, evaluate vulnerability of the infrastructure as well as the vulnerability of the population being served. Make the necessary changes to eliminate or diminish identified risks.
 - Examples: Updated list of patients' house structure and flood vulnerability, Satellite equipment acquisition, Power Generators purchases, establish agreements with gas stations and supermarkets.

Emergency Plan Assessment tools

<https://www.ready.gov/business>

<https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertEmergPrep/HealthCareProviderGuidance.html>

<https://asprtracie.hhs.gov/>

<https://www.samhsa.gov/disaster-preparedness/publications-resources>

Lessons learned

- The interventions of two clinics in Puerto Rico proved that an educated, proactive staff, working in unison to achieve specific goals, succeeds despite adversities.
- Include patients' consent for home visits in the event of loss of communication due to natural disasters in the patient demographic form and confirm there have been no changes in personal information at every visit.
- Include at media record something related to living condition and risk in case of a Natural disaster.

Lessons Learned

- Many health concerns arise after a natural disaster
- Patients with chronic medical conditions are most prone to complications in these instances.
- Imperative to ensure continuity of care, access to education focused on risk reduction and disease prevention, unrestricted access to urgent healthcare and reduction of barriers to obtain prescribed medications.
- Yet, keep in mind that basic necessities are the most urgent issues.
- **Brotherly solidarity among sister agencies, patients, staff and community helped PR rise again**



Contact Information

Ivan Melendez-Rivera IMelendez@centroararat.org

Romano Baroni RBaroni@centroararat.org

Sylvia Rodriguez SRodriguez@centroararat.org

Betzaida Torres BTorres@centroararat.org

Richard Torres RTorres@centroararat.org

Centro Ararat, Inc

8169 Calle Concordia Ste 412 Ponce, PR 00717

787-284-5884

Contact Information

Vivian Tamayo VTamayoMD@hotmail.com

Puerto Rico Community Network for Clinical Services, Research and Health
Advancement (PRCONCRA)

URB. GARCIA UBARRI

1162 BRUMBAUGH

RIO PIEDRAS, PR 00925

Phone: 787-773-0464 Fax: 787-773-0464

Questions?

