



National Institute of
Environmental Health Sciences
Superfund Research Program



NIEHS SRP P42 Research Center

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Northeastern University, University of Puerto Rico, University of Georgia, University of Michigan,
West Virginia University, Cornell University, Silent Spring Institute, EarthSoft Inc.

Scientific Knowledge – Technology Transfer – Information for Public – Trained Workforce

Enrichment cores enhance PROTECT products and outcomes

Research project integration enhanced by mutual use of support cores

Contaminant exposure analyzed from source to outcome

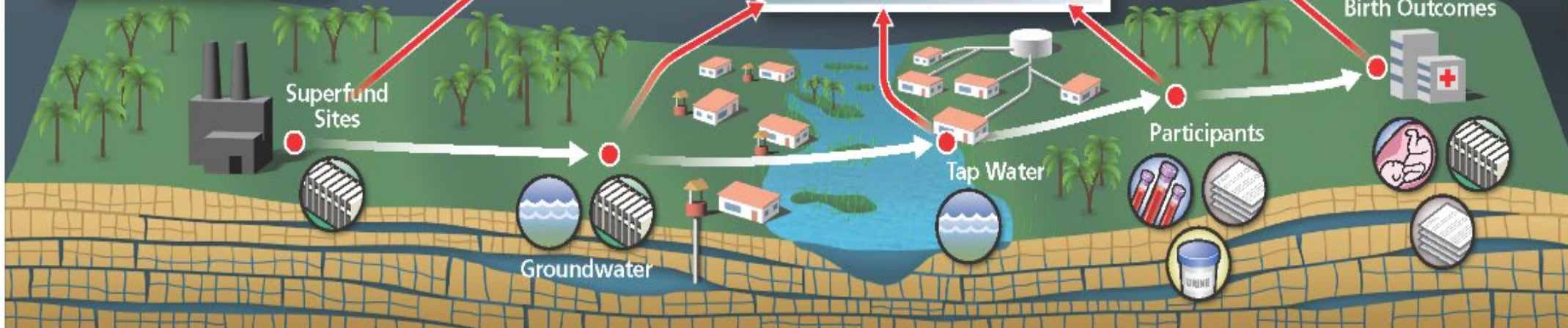
Administrative – Community Engagement – Research Experience and Training Coordination

4 Remediation
 (Water, Records icons)
3 Fate and Transport
 (Water, Records icons)
Environmental

Data Management and Analysis Core
 (Data, Analytics icons)

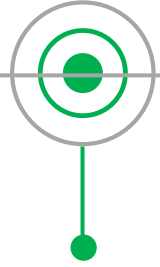
2 Mechanistic Toxicology
 (Water, Data, Placenta icons)
1 Environmental Epidemiology
 (Urine, Blood, Records, Placenta icons)
Biomedical

Human Subjects and Sampling Core
 (Urine, Blood, Placenta, Records icons)



Key: (Records icon) Records (Data icon) Data (Questionnaires icon) Questionnaires (Blood icon) Blood (Urine icon) Urine (Water icon) Water (Placenta icon) Placenta (Analytics icon) Analytics

2010



2014

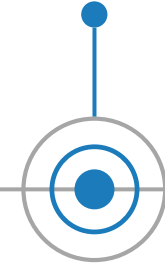


CRECE Funded
NIH/EPA P50
2015 - 2022



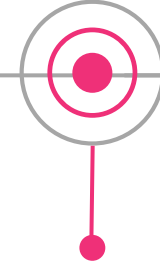
2015

ECHO Partnership
NIH UH3
2016 - 2023

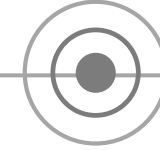


2016

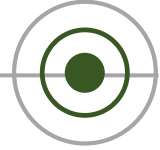
2020



2022



2025



PROTECT Funded

PROTECT Renewed

PROTECT Renewed (2020 - 2025)

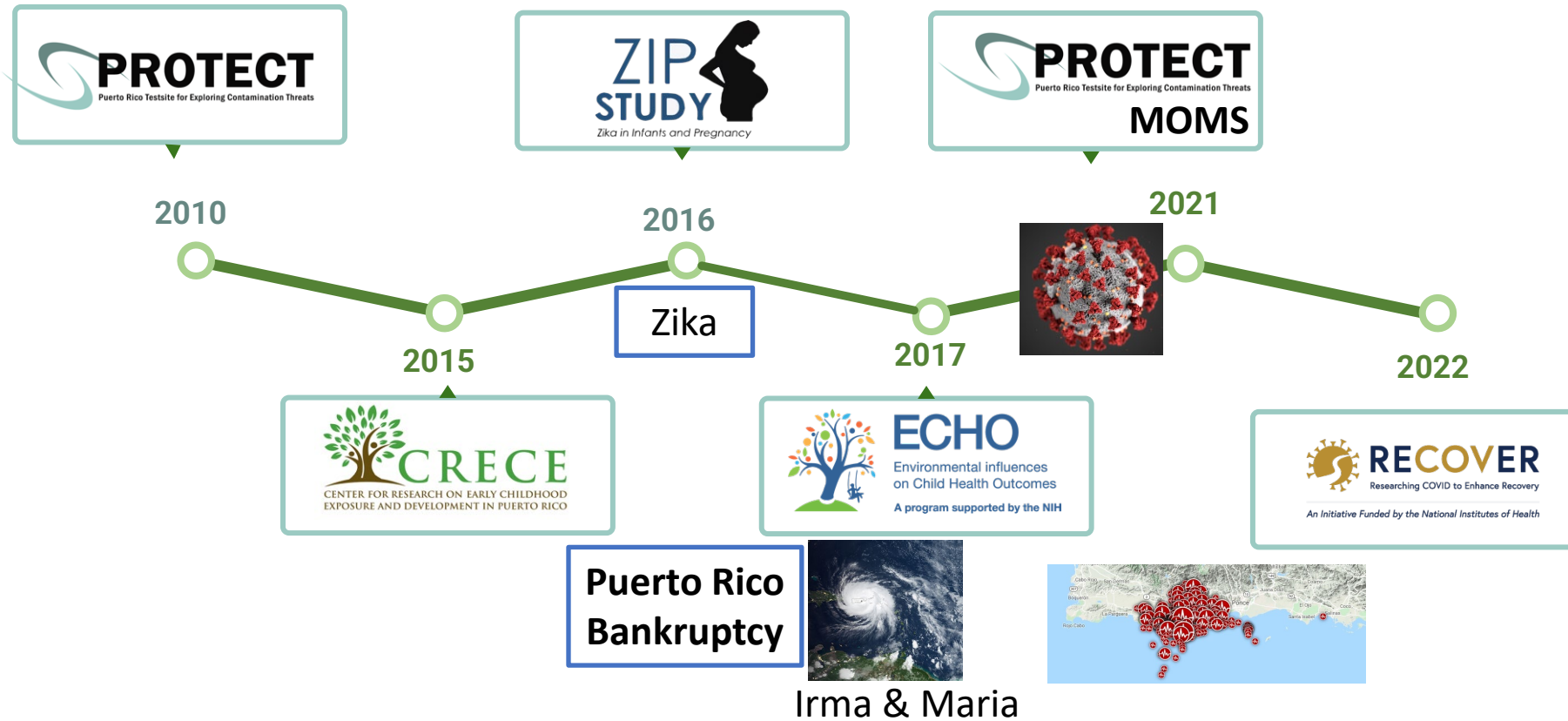
- **Chemicals:** Phthalates and Chlorinated Solvents
- **Health outcome:** Preterm Birth
- **Biological Mechanisms:** Inflammation and Oxidative Stress
- **Hydrology:** Episodic transport in karst
- **Remediation:** In Situ Site Remediation

- **Chemicals:** Phthalates and Chlorinated Solvents + Metals, Pesticides, and PAHs
- **Health outcome:** Adverse Pregnancy Outcomes (including preterm birth, impaired fetal growth, birth weight, preeclampsia, and gestational diabetes)
- **Biological Mechanisms:** Oxidative Stress
- **Hydrology:** Extreme weather events + Mixtures transport in karst + more field work
- **Remediation:** Portable + Point of Use systems
- **Other aspects:** Mixtures + advanced data analytics methods + Report back (with emphasis on participants' involvement)

CRECE Center for Research on Early Childhood Exposure and Development – Research Center

ECHO Environmental Influences on Child Health Outcomes (~\$1B/7yr NIH Program established in 2016)

Pregnancy and Children's Environmental Studies, Puerto Rico Timeline, 2010 - 2023



Community Engagement Core

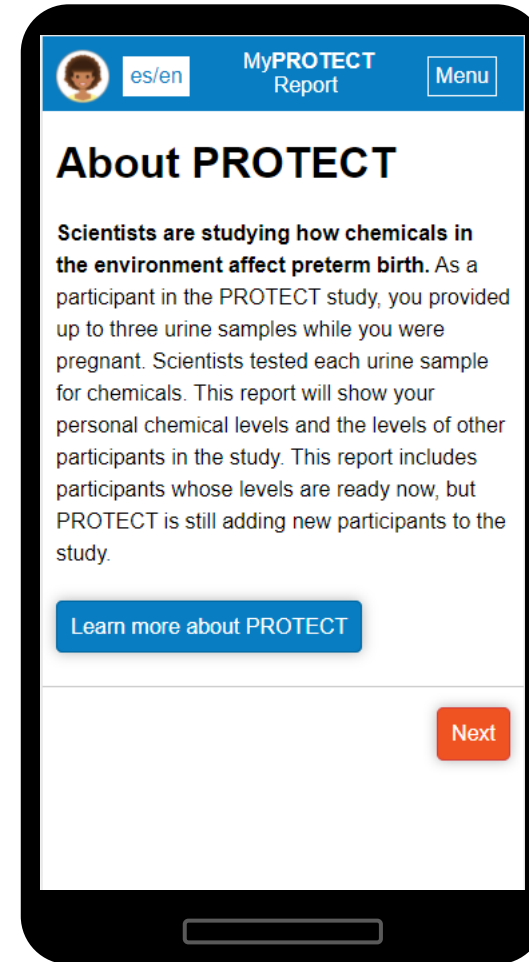
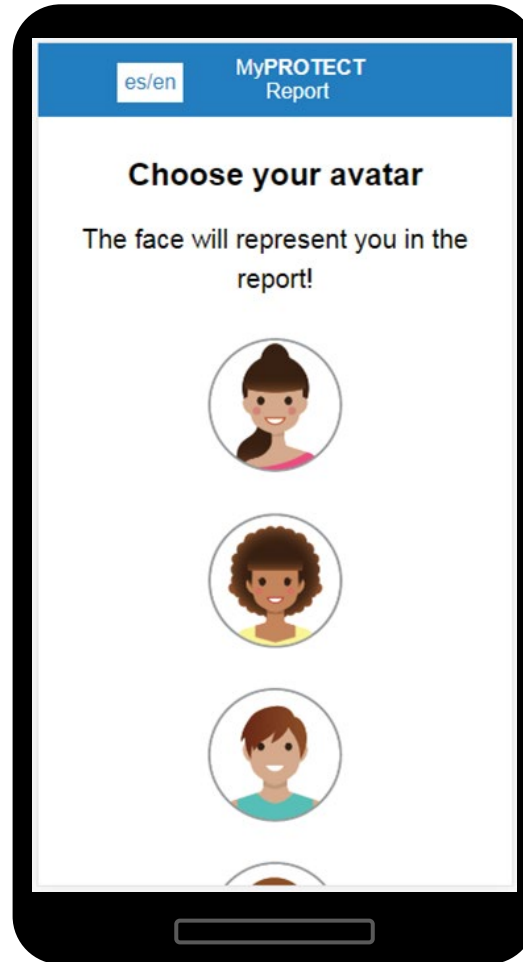


The Community Engagement Core (CEC), working closely with the Human Subjects and Sampling Core (HSSC), the Research Translation Coordinator, and the research projects, is the main vehicle for interaction with community stakeholders in Puerto Rico.

Community Engagement strategies:

- Deliver results to participants
- Promote environmental health awareness
- Collaborate with community health centers
- Collaborate with the Training Core
- Response to environmental emergencies as hurricanes
- Dissemination of research results through academic papers, radio interviews and local and international presentations

PROTECT Smartphone Report





es/en

MyPROTECT
Report

Menu



Phthalates



Your samples had lower levels of 3 phthalates (BBP, DBP and DEHP) than most others in PROTECT.

What you can do

Avoid plastics in the kitchen. Use ceramic or glass containers for food and drinks, and avoid microwaving food in plastic containers.

What are phthalates?

Some phthalates are added to polyvinyl chloride (PVC) plastics, like vinyl flooring, shower curtains, toys, and food packaging. They make plastic more flexible. Other phthalates are added to personal care products (like perfume and makeup) and printing inks. They help products hold fragrance and color. Some prescription medications have coatings that contain phthalates.

Photos

How can phthalates affect my health?

Many phthalates can harm the development of the reproductive system in baby boys and affect fertility in adults. Some phthalates are suspected to increase the risk of cancer. Some phthalates contribute to allergies and asthma.

What can I do?

- **Avoid plastics in the kitchen.** Use ceramic or glass containers for food and drinks, and avoid microwaving food in plastic containers.
- **Cook more meals at home with fresh ingredients.** Chemicals can get into food during processing and from packaging.

More

Previous



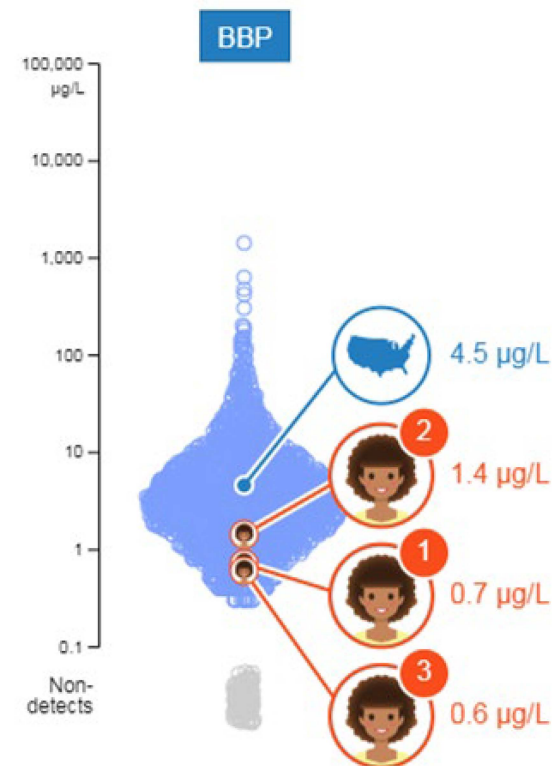
Next

Your Results

Legend

- US Median
- Your results
- Other women in PROTECT
- Samples where the chemical was not detected

Touch any part of the graph to get more information.



Parabenos

¿DÓNDE SE ENCUENTRA?



Champú y acondicionador



Cremas



Esmaltes y cosméticos



Toallas limpiadoras

RELACIONADO CON...

- Alergias en la piel
- Alterar el sistema hormonal
- Desarrollo de células cancerosas

OPCIONES PREVENTIVAS

- Identifique y evite etiquetas que mencionen la palabra **parabenos** u otras como:
 - Ethylparaben
 - Methylparaben
 - Propylparaben



Triclosán

¿DÓNDE SE ENCUENTRA?



Desinfectantes



Cosméticos



Pasta dental



Desodorante



Juguetes



Jabones antibacterianos

RELACIONADO CON...

- Asma
- Alergias en la piel
- Alterar el sistema hormonal
- Contaminación del agua

OPCIONES PREVENTIVAS

- Lavar las manos con agua y jabón regular por 20 segundos.
- Evitar productos antibacterianos antimicrobiales y "odor-killers".
- Evitar productos con **triclosán** nombres en etiquetas como: Biofresh, Microban, Irgasan, Lexo y/o Ster-Zac.



Bisfenoles

¿DÓNDE SE ENCUENTRA?



Botellas de agua



Envases de comida



Equipos de seguridad



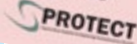
Bolsas plásticas



Alimentos enlatados

RELACIONADO CON...

- Alterar el sistema hormonal
- Bajo peso al nacer
- Desarrollo de células cancerosas



OPCIONES PREVENTIVAS

- Evite etiquetas que mencionen la palabra **BPA**.
- Utilice envases de vidrio o libres de BPA.
- No caliente alimentos en recipientes de plásticos
- Utilice bolsas reusables de tela



¿Cuáles contaminantes ambientales pueden afectar mi salud?

Conoce más sobre PROTECT:

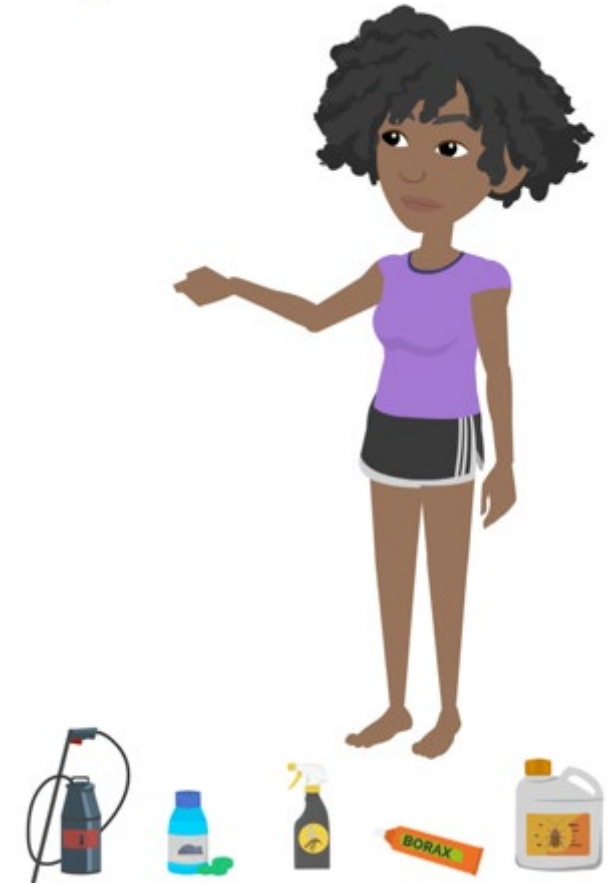
- PROTECT Puerto Rico
- protect.pr
- PROTECT SRP Center



Plaguicidas



Plaguicidas



Promoting environmental health awareness:



Response to environmental emergencies:



PROTECT

Queremos saber cómo estás luego del paso del Huracán Fiona.

Para nosotros eres importante,
Si tienes alguna necesidad en la que podamos ayudarte puedes comunicarte con nosotros al centro de llamadas. Nuestro personal esta listo para atenderte.

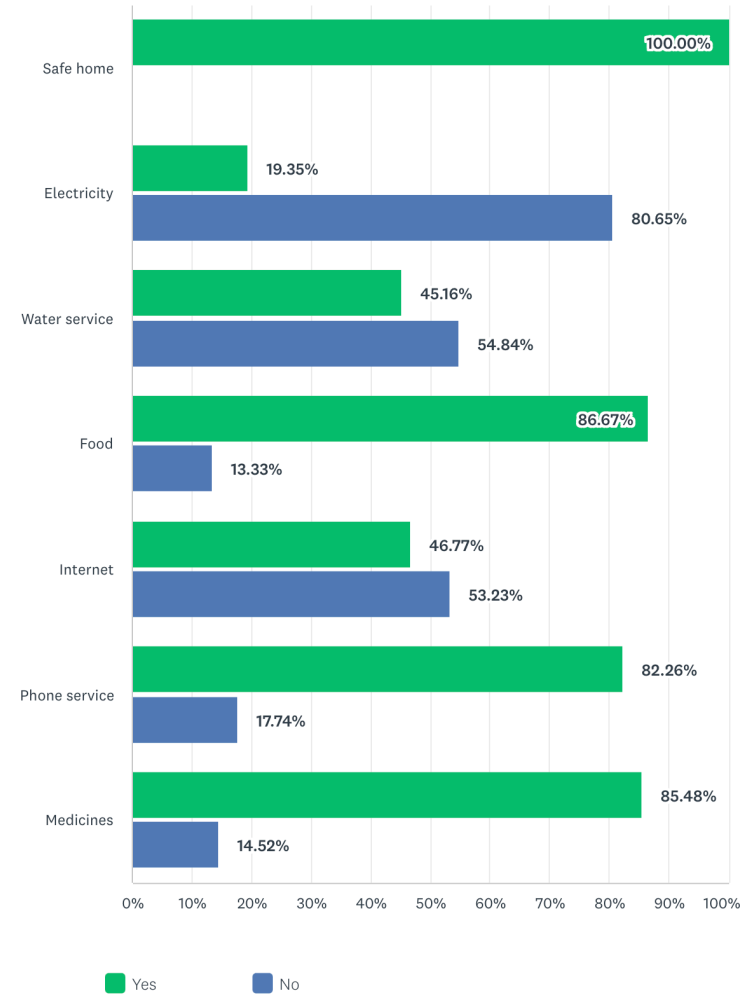
Queremos conocer si cuentas con:

-  Techo seguro
-  Agua potable
-  Alimentos
-  Electricidad

Centro de llamadas:
Zulmarie J Díaz Reguero : 939-645-1998
Abigail Figueroa: 787-308-9381
Email: protect.prs@gmail.com

After hurricane Fiona, do you have the following access:

Answered: 62 Skipped: 0





Community Engagement Core (CEC) members Nobel Hernández Otero and Chrystal Galán Rivera took part in Hurricane Fiona recovery efforts in a visit to the Sabana community in Vega Baja. The visit was organized by [PryMed Medical Care](#), a health nonprofit located in Vega Baja and Ciales that PROTECT works with regularly.

Partnerships



Northeastern University

UNIVERSIDAD DE PUERTO RICO
UPR



M
UNIVERSITY OF MICHIGAN

UNIVERSITY OF GEORGIA

West Virginia University



DEPARTAMENTO DE **SALUD**
GOBIERNO DE PUERTO RICO

earthsoft

NIH
National Institutes of Health

EPA

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

SILENT SPRING INSTITUTE
Researching the Environment and Women's Health

Puerto Rico Science, Technology & Research Trust



RISE
National Council for Science and the Environment

PROYECTO AGUA LIMPIA

Morovis Community Health Center, Inc.

CCR HD
Center for Collaborative Research in Health Disparities

PryMed
Unidos por tu salud

KARSO
CIUDADANOS DEL

BasuraCero
REDUCE • REUSA • RECICLA • COMPOSTA

COTICAM

Manatí Medical Center

Colectivo Ilé

Puerto Rico Public Health Trust

MARCH OF DIMES

CADERamen
Autocuidado y Apoyo a Procesos Reproductivos

Contact

- **Youtube:** PROTECT SRP Center
- **Facebook:** PROTECT Puerto Rico
- **Instagram:** @protect.pr
- **Call Center:** (939) 645-1998



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