Leveraging EMResource for Puerto Rico Department of Health Public Health Emergency Preparedness and Response

Damaris Díaz de Jesús, MS

Information Management Manager

Division of Public Health Preparedness and Response

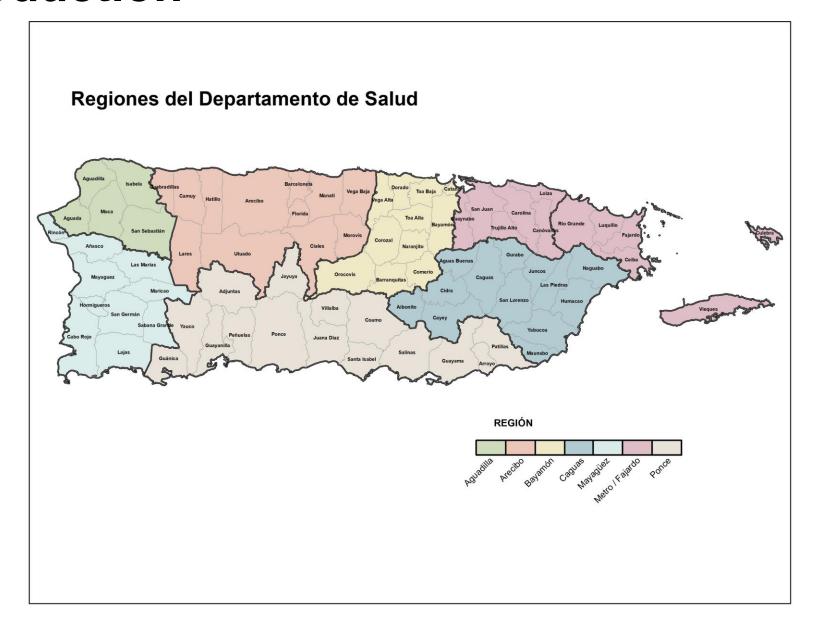


Objective

■ Demonstrate how the Puerto Rico Department of Health leverages EMResource to enhance public health decision-making by accurately tracking bed availability and patient census, ensuring efficient data validation and reporting processes to improve emergency response, resource management, and overall healthcare system readiness.



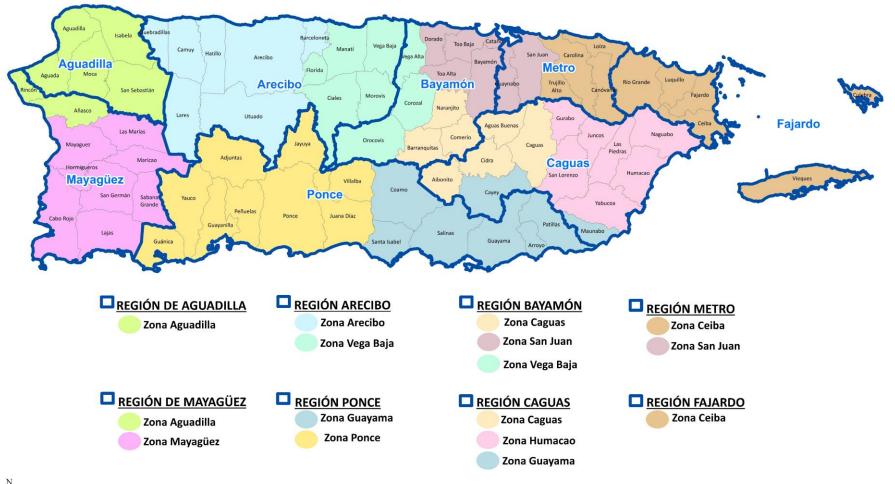
Introduction

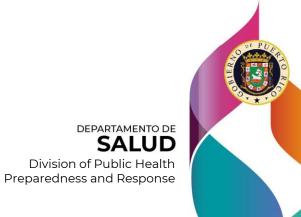




Introduction

Regiones del Departamento de Salud y Zonas del Negociado para el Manejo de Emergencias y Administración de Desastres (NMEAD)



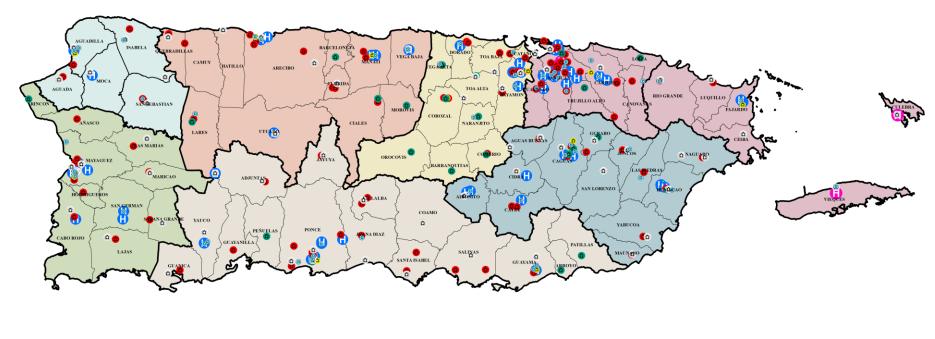




Healthcare Facilities Overview



Distribución de Facilidades de Salud por Regiones del Departamento de Salud





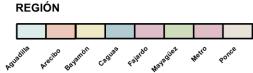
© FQHC 330



© CDT/330



- CFSE
- D Clínicas de Diálisis



Hospital/CDT (3) * CDTs Vieques y Menonita Culebra y Multy Medical (no lic de hospital de SARAFS pero sí de CMS)

Centros 330 que tienen licencia de CDT.



Healthcare Facilities Overview

- 71 Hospitals
 - 126 Diagnostic and Treatment Centers
 - 64 Federally Qualified Health Center
- **52** Dialysis Centers



Healthcare Facilities Users Onboarding

- Access Request Form
- Personalized email
- Quick Reporting Reference Guide
- Weekly Office Hour



Bo. Monacillos, Calle Casia #2, San Juan, PR 00921-3200 Teléfono: (787) 773-0600 - www.salud.gov.pr GUÍA DE REFERENCIA RÁPIDA

GUÍA DE REFERENCIA RÁPIDA

Elementos Esenciales de Información: EMResource

CDTs

Versión 1.0

septiembre 2024

DEPARTAMENTO DE SALUD

Division of Public Health

Preparedness and Response

Reporting Workflow

Reporting Process

 Healthcare facilities personnel submits data

> HCC Analysts acts as Liaisons to validate data

 DPHPR Data Specialist analyzes and produce reports

Status Update Cadence

Capacity

Bed Availability and Patient Census

Annually

Daily

P25 Network Testing

Weekly

Infrastructure Status

Every 8 hours





Healthcare Facilities EMResource Profile

Sections

- Capacity
- o Infrastructure
- Generators
- P25 Radio Network
- Emergency Management
- o POCs
- Availability
- o Census
- o PPE & Staff

Emergency Management	Status
Classification	Hospital
DoH Tier	Tier 2
LUMA Tier	Tier 2
Municipality	Vega Baja
NMEAD Zone	Vega Baja

Comms DS Radio Network	Status
PRDOH Property Number	SA-12897
Radio Serial Number	
Radio Police ID	3014
Radio Location	FRENTE ELEVADORES PRIMER PISO
Radio Operational Status	Operational
Weekly Testing Answer	Yes
Facility Visit Status	

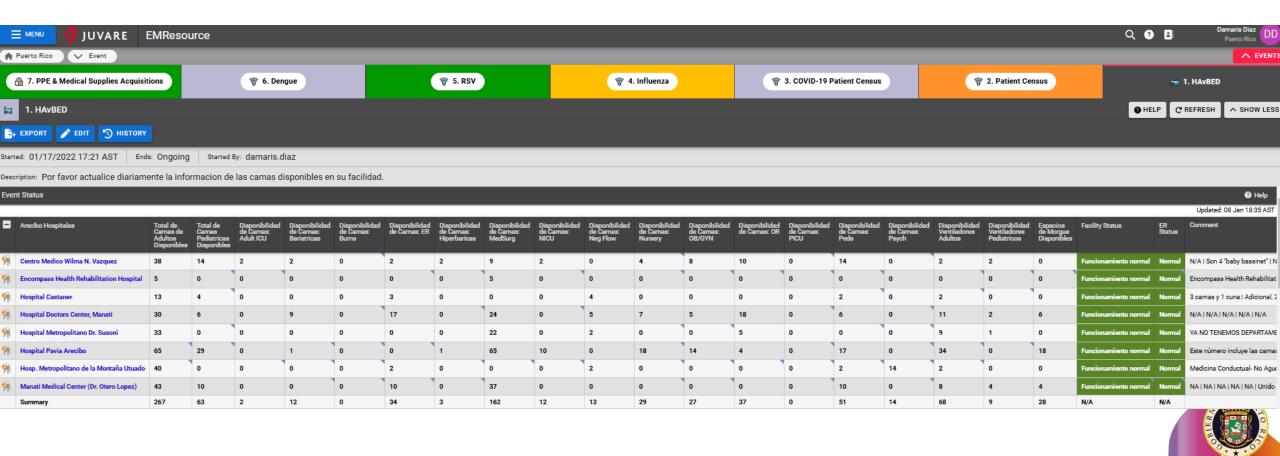


Public Health Use Cases

- Bed Availability and Patient Census
- HavBed Monthly Report
- P25 Radio Weekly Testing
- Infrastructure SitRep
- PPE Inventory
- Sentinel Laboratories (Biological and Chemical Emergency Laboratory)



Bed Availability and Patient Census Monitoring



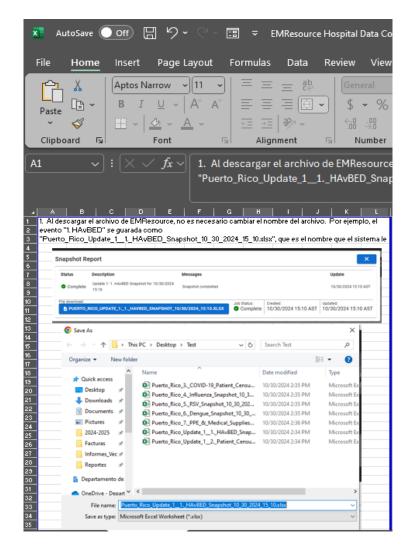


Data Validation and Reporting Workflow

- Hospital Data Submission until 3pm
- HCC Analysts monitors data and confirm PICU patients
- Data Specialist downloads event reports
- Imported into an Excel spreadsheet with macros
- Validations are performed and final reports are distributed



Data Validation and Reporting Workflow



- Download all related events
- Event Data Import
- Data validation per event
- Final Reports



SALUD

Reports – PRDoH Dashboard





Reports – NHSN Hospital Respiratory Data

A	D E	F	G	Н	1 8:8 1 0	J DID 10 ALL	
01/10/2025	59266 HOSP	numinPtBeds 130	109	numinPtBedsPed 21	numinPtBedSOcc 90	numInPtBedsOccAdult >	* <u>III</u> '9
01/10/2025	25220 HOSP	42	42	0	42	-	2
01/10/2025	55493 HOSP	90	84	0	44		4
01/10/2025	HOSP	33	13	4	0		0
01/10/2025	50229 HOSP	270	217	39	189		
01/10/2025	90486 HOSP	138	138	0	79		9
01/10/2025	92556 HOSP	230	142	44	85		1
01/10/2025	60404 HOSP	248	247	0	133	13	3
01/10/2025	HOSP	96	96	0	96		_
01/10/2025	55991 HOSP	146	127	0	120	12	0
01/10/2025	94715 HOSP	415	61	0	23	2	3
01/10/2025	13916 HOSP	436	285	0	137	13	7
01/10/2025	93394 HOSP	160	118	42	120	9	3
01/10/2025	60392 HOSP	124	0	110	86		0
01/10/2025	43807 HOSP	61	61	0	47	4	7
01/10/2025	44288 HOSP	165	141	0	141	14	1
01/10/2025	93596 HOSP	105	34	8	19	1	7
01/10/2025	20789 HOSP	262	191	61	230	19	1
01/10/2025	53616 HOSP	373	200	8	208	20	0
01/10/2025	84789 HOSP	108	45	17	48	4	0
01/10/2025	35542 HOSP	150	58	17	75	5	8
01/10/2025	59291 HOSP	440	299	97	135	11	6
01/10/2025	21019 HOSP	167	133	34	109	8	34
01/10/2025	91483 HOSP	45	41	4	45	4	1
01/10/2025	91333 HOSP	221	70	0	47	4	7
01/10/2025	52620 HOSP	80	32	5	37	3	32
01/10/2025	58830 HOSP	224	144	14	38	3	31
01/10/2025	93523 HOSP	230	109	18	42	4:	2
01/10/2025	20398 HOSP	187	159	4	122	12	0
01/10/2025	91592 HOSP	153	78	3	81	7	8
01/10/2025	91674 HOSP	82	64	12	23	2	23
01/10/2025	92543 HOSP	75	38	20	15		5
01/10/2025	91882 HOSP	108	103	0	45	4	5
01/10/2025	54560 HOSP	391	195	27	137	12	2
01/10/2025	90714 HOSP	86	85	0	70	7	0
01/10/2025	90743 HOSP	207	150	9	96	9	1
< > ··· 4. I	Influenza 5. RSV	6. Dengue	7. PPE DS Report	dashboard_covid19)_hospitalario He	althSystemMetrics NH	ISI



Reports – Short Term Acute Care Hospitals

				Patient Census	
PRDOH Region	HOSPITAL	Adult Patient Total Census	Adult Total Availability	Pediatric Total Census	Pediatric Availability
		203	No Info.	26	No Info.
		56	59	0	6
		90	38	11	11
		81	30	0	27
		35	55	3	3
		44	No Info.	3	No Info.
	Total % Occupied	4195 67	2039	678 57	509 7%



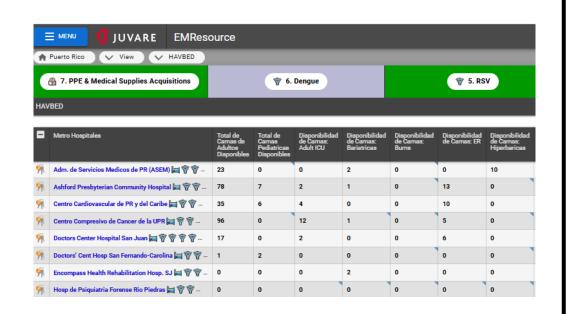
Reports – Quick Overview Reports

1/8/2025				1/8/2025					
Censo	General			Hospitalizados Adultos COVID-19					
	Disponibilidad	Censo	Región	COVID-19	%	ICU	%	VENTS	%
Adultos	2039	4195	Arecib	2	0.3	0	0.0	0	0.0
Pediátrico	509	678	Bayamó	3	0.6	2	4.0	1	2.2
ICU	179	437	Cagua	s 0	0.0	0	0.0	0	0.0
PICU	48	42	Mayagüe	3	0.6	0	0.0	0	0.0
Presión Negativa	219	277	Metro/Fajard	1	0.1	1	0.6	1	0.8
Ventiladores Adultos	743	337	Ponc	3	1.6	1	0.5	0	0.0
Ventiladores Pediátricos	99	54			1/8/	2025			
Censo C	OVID-19			Hospitalizados Pediátricos COVID-19					
	Censo)	Región	COVID-19	%	PICU	%	VENTS	%
Hospitalizados Adultos	12		Arecib	1	0.6	0	0.0	0	0.0
ICU	4		Bayamó	0	0.0	0	0.0	0	0.0
Ventiladores (Adultos)	2		Cagua	o	0.0	0	0.0	0	0.0
Hospitalizados Pediátrico			Mayagüe	2 0	0.0	0	0.0	0	0.0
PICU	0		Metro/Fajard	2	0.2	0	0.0	0	0.0
Ventiladores (Pediátricos)	0		Ponc	1	0.0	0	0.0	0	0.0
Total de Hospitalizados	16								

1/8/2025				1/8/2025				
Censo	General			Hospitalizados Adultos RSV				
	Disponibilidad	Censo	F	Región	RSV	%	ICU	%
Adultos	2039	4195		Arecibo	0	0.0	0	0.0
Pediátrico	509	678		Bayamón	0	0.0	0	0.0
ICU	179	437		Caguas	0	0.0	0	0.0
PICU	48	42		Mayagüez	0	0.0	0	0.0
Presión Negativa	219	277	Metr	ro/Fajardo	9	0.6	0	0.0
Ventiladores Adultos	743	337		Ponce	0	0.0	0	0.0
Ventiladores Pediátricos	99	54			1/8/	2025		
Cens	o RSV			Hospitalizados Pediátricos RSV				
	Cens	0	F	Región	RSV	%	PICU	%
Hospitalizados Adultos	9			Arecibo	4	2.5	0	0.0
ICU	0			Bayamón	14	19.2	0	0.0
Hospitalizados Pediátrico	48			Caguas	14	63.6	0	0.0
PICU				Mayagüez	1	0.7	0	0.0
Ventiladores (Pediátricos)	0		Metr	ro/Fajardo	14	1.6	1	1.8
Total de Hospitalizados	57			Ponce	1	0.0	0	0.0



HavBed Monthly Reporting

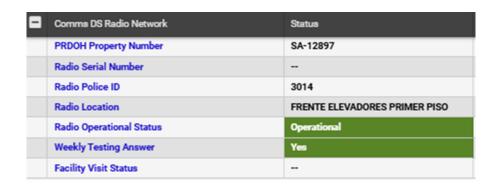


Reporte HAVBED Noviembre 2024						
Hospital Name	Region	Yes	No	%Yes	%No	
Hospital Name	Arecibo	25	5	83.333	16.667	
Hospital Name	Arecibo	28	2	93.33	6.67	
Hospital Name	Arecibo	18	12	60.00	40.00	
Hospital Name	Arecibo	29	1	96.67	3.33	
Hospital Name	Arecibo	22	8	73.33	26.67	
Hospital Name	Arecibo	26	4	86.67	13.33	
Hospital Name	Arecibo	23	7	76.67	23.33	



Weekly P25 Radio COMMS Testing





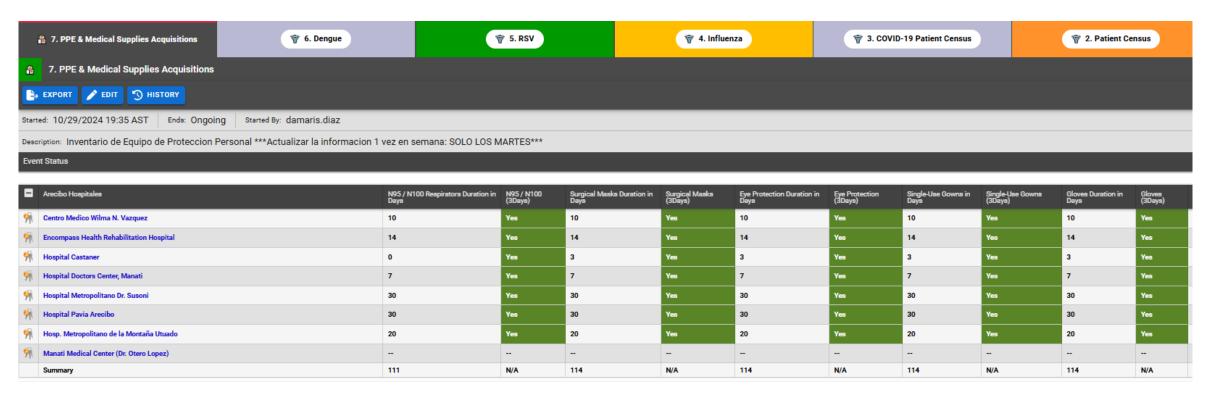


Emergency Communications: Monthly Radio Testing Report

Monthly Radio Testing Report - November 2024



PPE Resource Allocation



PPE INVENTO SITE REPORT AS			
Location: Puerto Rico Dept. Health - OPHPR	Disaster #: N/A	Qty.	UOM



SitRep



- All healthcare facilities on a single view
 - Emergency Management Information
 - Infrastructure Status
 - Facility and Medical Gases Status



SitRep

Healthcare Facilities Infrastructure Status

Data as of: 08.21.2024 1430

Hospit	tales	
Estado de la facilidad	Cantidad	%
Cerrado	0	0%
Comprometidos	2	3%
Desalojo	0	0%
Funcionamiento normal	69	97%
No info	0	0%
Total	71	
Fuente de electricidad	Cantidad	%
Fully on Grid	71	100%
Intermittent	0	0%
Generator Only	0	0%
Solar Panels	0	0%
No info	0	0%
Total	71	070
Total	/1	
Fuente de agua	Cantidad	%
PRASA	41	58%
Water Well	3	4%
Water Tank	1	1%
Both: AAA & Water Well	0	0%
ASEM	3	4%
Unknown	0	0%
No	0	0%
No Info	23	32%
Total	71	OZ N
Gases médicos	Cantidad	%
Normal	69	97%
Limitados	2	3%
Insuficiente	0	0%
N/A	0	0%
No info	0	0%
Total	71	
Dienonibilidad da		
Disponibilidad de comunicaciones	Cantidad	%
	Cantidad 70	% 99%
comunicaciones		
comunicaciones Yes	70	99%
comunicaciones Yes Partial	70 0	99%

330					
Estado de la facilidad	Cantidad	%			
Cerrado	0	0%			
Comprometidos	2	3%			
Desalojo	0	0%			
Funcionamiento normal	62	97%			
No info	0	0%			
Total	64				
Fuente de electricidad	Cantidad	%			
Fully on Grid	63	98%			
Intermittent	0	0%			
Generator Only	1	2%			
Solar Panels	0	0%			
No info	0	0%			
Total	64				
Fuente de agua	Cantidad	%			
PRASA	64	100%			
Water Well	0	0%			
Water Tank	0	0%			
Both: AAA & Water Well	0	0%			
ASEM	0	0%			
Unknown	0	0%			
No	0	0%			
No Info	0	0%			
Total	64				
Gases médicos	Cantidad	%			
Normal	64	100%			
Limitados	0	0%			
Insuficiente	0	0%			
N/A	0	0%			
No info	0	0%			
Total	64				
Disponibilidad de comunicaciones	Cantidad	%			
Yes	64	100%			
Partial	0	0%			
None	0	0%			
No info	0	0%			

CD	T	
Estado de la facilidad	Cantidad	%
Cerrado	2	1%
Comprometidos	0	0%
Desalojo	0	0%
Funcionamiento normal	135	99%
No info	0	0%
Total	137	
Fuente de electricidad	Cantidad	%
Fully on Grid	136	99%
Intermittent	0	0%
Generator Only	0	0%
Solar Panels	1	1%
No info	0	0%
Total	137	
Fuente de agua	Cantidad	%
PRASA	136	99%
Water Well	0	0%
Water Tank	1	1%
Both: AAA & Water Well	0	0%
ASEM	0	0%
Unknown	0	0%
No	0	0%
No Info	0	0%
Total	137	
Gases médicos	Cantidad	%
Normal	137	100%
Limitados	0	0%
Insuficiente	0	0%
N/A	0	0%
No info	0	0%
Total	137	
Disponibilidad de comunicaciones	Cantidad	%
Yes	137	100%
Partial	0	0%
None	0	0%
No info	0	0%
14011110	137	• /4
	107	

Diálisis					
Estado de la facilidad	Cantidad	%			
Cerrado	1	2%			
Comprometidos	0	0%			
Desalojo	0	0%			
Funcionamiento normal	51	98%			
No info	0	0%			
Total	52				
Fuente de electricidad	Cantidad	%			
Fully on Grid	50	96%			
Intermittent	0	0%			
Generator Only	2	4%			
Solar Panels	0	0%			
No info	0	0%			
Total	52				
Fuente de agua	Cantidad	%			
PRASA	52	100%			
Water Well	0	0%			
Water Tank	0	0%			
Both: AAA & Water Well	0	0%			
ASEM	0	0%			
Unknown	0	0%			
No	0	0%			
No No Info	0	0% 0%			
***		-11			
No Info Total	0	-11			
No Info	0				
No Info Total Disponibilidad de	0 52	0%			
No Info Total Disponibilidad de comunicaciones	0 52 Cantidad	0%			
No Info Total Disponibilidad de comunicaciones Yes	0 52 Cantidad	% 100%			
No Info Total Disponibilidad de comunicaciones Yes Partial	0 52 Cantidad 52 0	% 100% 0%			



SitRep

Healthcare Facilities Infrastructure Status

Data as of: 08.21.2024, 1430

Hospitales	Municipality	NMEAD Zone	DoH Tier	LUMA Tier	Facility: Type	Facility Status	Power Source	Water Source	Medical Gases	Available Comms
Centro Medico Wilma N. Vazquez	Vega Baja	Vega Baja	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	PRASA	Normal	Yes
Encompass Health Rehabilitation Hospital	Manati	Vega Baja	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	PRASA	Normal	Yes
Hosp. Metropolitano de la Montaña Utuado	Utuado	Arecibo	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	PRASA	Normal	Yes
Hospital Castaner	Lares	Arecibo	Tier 2	Tier 2	Hospital/CDT	Funcionamiento normal	Fully on Grid	Both	Normal	Yes
Hospital Doctors Center, Manati	Manati	Vega Baja	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	PRASA	Normal	Yes
Hospital Metropolitano Dr. Susoni	Arecibo	Arecibo	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	PRASA	Normal	Yes
Hospital Pavia Arecibo	Arecibo	Arecibo	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	PRASA	Normal	Yes
Manati Medical Center (Dr. Otero Lopez)	Manati	Vega Baja	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	PRASA	Normal	Yes
Bayamon Medical Center-Hermanos Melendez	Bayamon	San Juan	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	Both	Normal	Yes
Centro Medico Correccional de Bayamon	Bayamon	San Juan	Tier 1	Tier 1	Hospital	Funcionamiento normal	Fully on Grid	PRASA	Normal	Yes
Doctors Center Hospital Bayamon	Bayamon	San Juan	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	Both	Normal	Yes
Hosp. Universitario Dr. Ramon Ruiz Arnau	Bayamon	San Juan	Tier 1	Tier 1	Hospital	Funcionamiento normal	Fully on Grid	PRASA	Normal	Yes
Hospital Español Auxilio Mutuo San Pablo	Bayamon	San Juan	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	Both	Normal	Yes
Orlando Health Dorado	Dorado	Vega Baja	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	Water Tank	Normal	Yes
Puerto Rico Women's and Children's Hosp.	Bayamon	San Juan	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	PRASA	Normal	Yes
Centro de Salud Conductual Menonita CIMA	Aibonito	Caguas	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	PRASA	Normal	Yes
First Hospital Panamericano	Cidra	Caguas	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	Both	Normal	Yes
HOPE Medical Center de Humacao	Humacao	Humacao	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	Both	Normal	Yes
Hospital Centro Medico Menonita de Cayey	Cayey	Caguas	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	Both	Normal	Yes
Hospital General Menonita Caguas	Caguas	Caguas	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	PRASA	Normal	Yes
Hospital Menonita de Humacao	Humacao	Humacao	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	Both	Normal	Yes
Hospital Menonita General de Aibonito	Aibonito	Caguas	Tier 2	Tier 2	Hospital	Funcionamiento normal	Fully on Grid	Both	Normal	Yes

DEPARTAMENTO DE **SALUD**Division of Public Health
Preparedness and Response



Sentinel Laboratories

- Biological and Chemical Emergency Laboratory
 - State Sentinel Laboratories and their capacity to refer samples



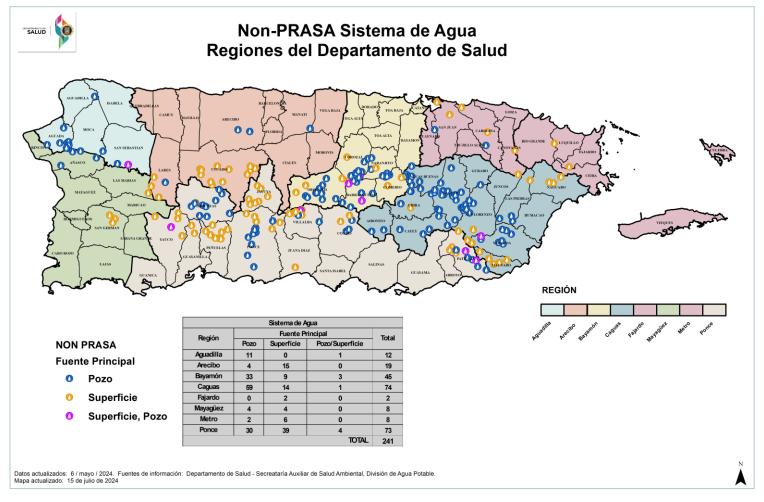


Public Health Users

- Secretary of Health
- Division of Public Health Preparedness and Response
- Division of Epidemiology
- PRDoH Regional Directors
- Auxiliary Secretariat for the Regulation of Public Health



Future Plans – NON-PRASA



- Community Water Systems
 - o Capacity
 - o Infrastructure
 - Operational Status



Future Plan – PRDoH Intellectual Disability



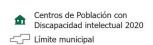
Centros de Población con Discapacidad Intelectual

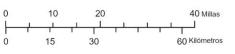


Intellectual Disability Homes and Centers

- Capacity
- o Infrastructure
- Operational Status









Mapa actualizado: 1 / julio / 2023 Fuentes de información: División de Servicios a las Personas con Discapacidad Intelectual - Oficina de Preparación y Coordinación de Respuesta en Salud Pública (OPCRSP) del Departamento de Salud (DS).
Los geodatos son creados por diferentes municipios, agencias estatales y federales, La Oficina de Preparación y Coordinación de Respuesta en Salud Pública (OPCRSP) del Departamento de Salud no asume ninguna responsabilidad por la discrepancia de los datos. Estos datos son para referencia, no documentos legale



Future Plans – LUMA

Essential Elements of Information

• Facility Name: Name of the facility

• Facility Longitude: Lat

Facility Latitude: Long

Facility Type: Type of Healthcare facility (annually)

LUMA Tier: Power Priority (annually)

 Power Source: Current power source: Fully on grid, Intermittent, Generator Only (daily)

Facility Status: Current Healthcare Facility Status (daily)

 Generator Status: Current Generator Status: Operational, Not Operational, Operational but requires service (daily on emergency activations)

 Generator Last Maintenance Date: Date of last maintenance performed (quarterly)

 Fuel Tank Capacity: Maximum Fuel Storage Capacity in Gallons (annually)

 Fuel Tank Current Level: Current Fuel Level in Gallons (daily on emergency activations)

MOA

ACUERDO DE COLABORACIÓN PARA EL INTERCAMBIO DE INFORMACION ENTRE EL DEPARTAMENTO DE SALUD DE PUERTO RICO Y LUMA ENERGY

COMPARECEN



Challenges

Common Issues

- Incomplete or delayed data submission
- Misinterpretation of reporting fields
- Rotation of reporting personnel

Solutions

- Monthly Compliance reports
- Weekly Office Hours Session for reporting personnel and technical assistance
- Configuration of data fields as per state definition



Thanks!







Damaris Díaz de Jesús, MS

Information Management Manager damarisdiaz@salud.pr.gov

Division of Public Health Preparedness and Response