

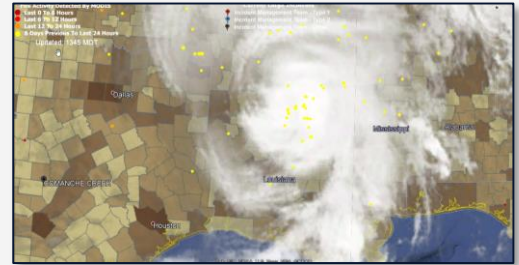
# HHS emPOWER Program

## INTRODUCTION TO THE HHS emPOWER REST SERVICE\_PUBLIC

The de-identified Medicare data displayed on the HHS emPOWER Map is also available as a Representational State Transfer (REST) Service via ASPR's GeoHEALTH Platform. Users can readily access, consume, and apply the map data layer in their own geographic information system (GIS) application to support national, state, territory, local, and community-based GIS analyses.

### Why use the HHS emPOWER Map data layer?

Public health, health care, emergency management, first responders, utilities, health information technology professionals, and many other community partners can use the data layer to map the number of electricity-dependent individuals in an area against hospital and shelter locations, evacuation routes, and more to inform emergency preparedness, response, recovery, and mitigation efforts.



Hurricane Laura over Texas and Louisiana (August 2020)



### Access the HHS emPOWER REST Service\_Public

**HHS emPOWER Map 3.0**

Over 2.5 million Medicare beneficiaries rely on electricity-dependent medical equipment, such as ventilators, to live independently in their homes. Severe weather and other emergencies, especially those with long power outages, can be life-threatening for these individuals.

The HHS emPOWER Map is updated monthly and displays the total number of at-risk electricity-dependent Medicare beneficiaries in a geographic area, down to the ZIP Code.

The HHS emPOWER Map gives every public health official, emergency manager, hospital, first responder, electric company, and community member the power to discover the electricity-dependent Medicare population in their state, territory, county, and ZIP Code. When combined with real-time severe weather and hazard maps, communities can easily anticipate and plan for the needs of this population during an emergency.

For more information on when and how to use the HHS emPOWER Map please see the resources section.

Resources	
<a href="#">HHS emPOWER Program Fact Sheet</a>	<a href="#">HHS emPOWER REST Service_Public</a>
<a href="#">HHS emPOWER REST Service_Public</a>	<a href="#">HHS emPOWER REST Service_Public</a>
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### Option 1: Navigate from the emPOWER Map Webpage

**Step 1:** Visit the HHS emPOWER Map webpage at <https://empowerprogram.hhs.gov/empowermap>

**Step 2:** Select the link labeled "HHS emPOWER REST Service\_Public" in the Resources box.

### Option 2: Visit the REST Service Webpage Directly

GIS programmers may prefer to visit the HHS emPOWER REST Service\_Public webpage on ASPR's GeoHEALTH Platform directly by accessing the URL below and scrolling down to the "Layers" section. GIS programmers may also access the webpage by scanning the QR code at right.

Full URL: [https://geohealth.hhs.gov/dataaccess/rest/services/HHS\\_emPOWER\\_REST\\_Service\\_Public/MapServer](https://geohealth.hhs.gov/dataaccess/rest/services/HHS_emPOWER_REST_Service_Public/MapServer)

Scan this QR Code



### Option 3: Navigate from the Homepage of ASPR's GeoHEALTH Platform

**Step 1:** Go to [ASPR's GeoHEALTH Platform](#), ASPR's interactive GIS-based mapping application.

**Step 2:** Select the picture labeled "HHS emPOWER REST Service\_Public." A new page will open with a density map of the United States.

**Step 3:** On the left panel under the "About" tab, select the link that says "More Details..." A new page with a map description and link to the data layer will appear.

**Step 4:** On the map information page, scroll down to the section that says "Layers" and select the link that says "HHS emPOWER REST Service\_Public." This link will take you to the REST Service.



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# HHS EMPOWER REST SERVICE\_PUBLIC: VIEW, CONSUME, AND APPLY THE MAP DATA LAYER



## View and Consume the HHS emPOWER Map Data Layer in the REST Service

The [HHS emPOWER REST Service\\_Public webpage](#) provides a description of the data layer, the purpose of the data, multiple options with which to view the data layer, and links to view State/Territory, County, and ZIP Code-level data.

To view and interact with the data layer covering the entire United States, click on any of the options next to **"View In"**

Users may access the data layer through different formats, including **ArcGIS** and **Google Earth**, depending on user preference

### HHS\_emPOWER\_REST\_Service\_Public (MapServer)

**View In:** [ArcGIS JavaScript](#) [ArcGIS Online map viewer](#) [Google Earth](#) [ArcMap](#) [ArcGIS Explorer](#)

**View Footprint In:** [ArcGIS Online map viewer](#)

**Service Description:** Data Overview: ASPR, in partnership with the Centers for Medicare and Medicaid Services (CMS), provide de-identified and aggregated Medicare beneficiary claims data at the state/territory, county, and ZIP code levels in the HHS emPOWER Map and this public HHS emPOWER REST Service. The REST Service includes aggregated data from the Medicare Fee-For-Service (Parts A&B) and Medicare Advantage (Part C) Programs for beneficiaries who rely on electricity-dependent durable medical equipment (DME) and cardiac implantable devices. Data includes the following DME and devices: cardiac devices (left, right, and bi-ventricular assistive devices (LVAD, RVAD, BIVAD) and total artificial hearts (TAH)), ventilators (invasive, non-invasive and oscillating vests), bi-level positive airway pressure device (BIPAP), oxygen concentrator, enteral feeding tube, intravenous (IV) infusion pump, suction pump, end-stage renal disease (ESRD) at-home dialysis, motorized wheelchair or scooter, and electric bed. Purpose: Over 2.5 million Medicare beneficiaries rely on ventilators, to live independently in their homes. Severe weather and other emergencies, especially those w individuals. The HHS emPOWER Map and public REST Service give every public health official, emergency m community member the power to discover the electricity-dependent Medicare population in their state/territ Service's data is developed from Medicare Fee-For-Service (Part A & B) (>33M 65+, blind, ESRD [dialysis], Advantage (Part C) (>21M 65+, blind, ESRD [dialysis], dual-eligible, disabled [adults and children], beneficiaries individuals that are only enrolled in a State Medicaid Program. Note that Medicare DME are subject to insura differ by type, so the DME may have different "look-back" periods (e.g. ventilators are 13 months and oxyg Some ZIP Codes do not have specific *geospatial boundary data* (e.g., P.O. Box ZIP Codes) to capture the c ndary ZIP Code (pin) resides. T service is approved for use by all partners and is intended to be used to help inform and activities in all communities. Privacy Protections: Protecting the privacy of Medicare beneficiaries onally identifiable information are removed from the data and numerous de-identification any potential for deduction of small cells or re-identification risk. For example, any cell size

This REST Service is **approved for use by all partners** and is intended to be used to help inform and support emergency preparedness, response, recovery, and mitigation activities in all communities

Legends and a link to all data layers and tables are available under **"Map Name"**

Each link under the **Layers** section will take the user to a page specifically for State/Territory, County, or ZIP Code-level datasets. Each of these pages provides additional information on each data layer

**Map Name:** Layers

[Legend](#)

[All Layers and Tables](#)

[Dynamic Legend](#)

[Dynamic All Layers](#)

**Layers:**

- [Electrically Dependent -All 1yr\\_ZipLevel](#) (0)
- [Electrically Dependent DME-All 1yr\\_CountyLevel](#) (1)
- [Electricity Dependent DME-All 1yr\\_StateLevel](#) (2)



## Apply the HHS emPOWER REST Service\_Public

The HHS emPOWER Map data layer in the HHS emPOWER REST Service\_Public allow users to gain deeper insight across the emergency management cycle, such as:

- Identifying **optimal locations, staffing, resources, and power needs** for shelters based on the number of at-risk Medicare beneficiaries in a given area.
- Anticipating potential **health care and emergency medical services surge** based on the density of at-risk beneficiaries and location of health care facilities.
- **Planning for evacuation needs** and identifying evacuation routes.
- Supporting **power restoration decision-making**.

...and more!



An emPOWER data layer overlaid with hospital locations in North Carolina

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# HHS emPOWER REST SERVICE\_PUBLIC: DATA GUIDE


Refer to this guide for more detailed information on the electricity-dependent durable medical and assistive equipment and devices and natural hazards data provided in the HHS emPOWER REST Service\_Public.


## ELECTRICITY-DEPENDENT DURABLE MEDICAL EQUIPMENT (DME) AND DEVICES


The HHS emPOWER Map uses de-identified claims data, updated monthly, on Medicare Fee-for-Service and Medicare Advantage (Parts A, B, and C) beneficiaries with a claim submitted for reimbursement for the following DME and devices\*:


- 


**Cardiac Devices (4):** Left, right, and bi-ventricular assistive devices and total artificial hearts (LVAD, RVAD, BIVAD, and TAH) are mechanical pumps that support or replace heart function in people with heart failure
- 


**IV Infusion Pump:** Delivers controlled levels of fluids, medication, or nutrients into a patient's circulatory system
- 


**Ventilator:** Provide 24 hour a day life-maintaining or saving ventilation and oxygen for an individual
- 


**Suction Pump:** Used by individuals who have difficulty clearing mucosal secretion in their airway and/or for gastric secretions
- 

**Bi-level Positive Airway Pressure Device (BiPAP):** Provides non-invasive inhalation and exhalation mechanical pressure support ventilation to keep airways open
- 

**End-Stage Renal Disease (ESRD) At-Home Dialysis:** At-home peritoneal or hemodialysis machines for patients that need frequent dialysis treatments
- 

**Oxygen Concentrator:** Provides life-maintaining or saving oxygen from the air 24 hours a day or as supplemental oxygen for certain respiratory conditions
- 





**Motorized Wheelchair or Scooter:** Mobility equipment for individuals unable to propel a manual wheelchair
- 

**Enteral Feeding Tube:** Provides nutrition to patients who cannot obtain nutrition by mouth, are unable to swallow safely, or need nutritional supplementation
- 

**Electric Bed:** Features include adjustable heights for the bed, head, and feet, adjustable side rails, and electronic buttons to operate the bed and other nearby electronic devices

## FEDERAL NATURAL HAZARDS REST SERVICES

You may also overlay data layers from other federal REST Services on top of emPOWER REST Service data layers to conduct more comprehensive analyses. The federal REST Services listed below are included in the HHS emPOWER Map and may be accessed and overlaid on top of HHS emPOWER REST Service data layers:

Data Layer(s)	Source	Frequency Updated
 <b>Hurricanes, Radar Flood, Precipitation, &amp; Storm Prediction</b>	<a href="#">National Oceanic and Atmospheric Administration (NOAA) National Weather Service</a>	NOAA forecasts and advisories are issued every six hours at 0300, 0900, 1500, and 2100 Coordinated Universal Time (UTC).
 <b>Long Duration Hazards Short Duration Hazards</b>	<a href="#">NOAA nowCOAST REST Service</a>	NOAA nowCOAST downloads, processes, and displays hazards map data every 4 minutes.
 <b>Wildfire</b>	<a href="#">GeoHEALTH USA Wildfire Activity REST Service</a>	Events displayed occurred within the past 7 days.
 <b>Seismic Activity</b>	<a href="#">USGS Earthquake Activity REST Service</a>	Earthquakes magnitude 4.0 and greater within the contiguous U.S. and populated regions of Alaska and earthquakes of 5.0 and greater in all other locations worldwide are located and reported within 30 minutes.

\*For additional information on lookback periods for specific DME and devices, review the [HHS emPOWER Map](#) footnotes.

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