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.

Access the HHS emPOWER REST Service_Public

Option 1: Navigate from the HHS emPOWER Program Platform
Step 1: Visit the HHS emPOWER REST Service webpage at https://empowerprogram.hhs.gov/empower-rest.html.
Step 2: Select the button labeled “Select here to launch the HHS emPOWER REST Service” on the right-hand side of the webpage.

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

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.
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.

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.

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

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The HHS emPOWER Map data layer in the HHS emPOWER REST Service_Public allows 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!
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.

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

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

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

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

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

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

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

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

**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:

<table>
<thead>
<tr>
<th>Data Layer(s)</th>
<th>Source</th>
<th>Frequency Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hurricanes, Radar</td>
<td>National Oceanic and Atmospheric Administration (NOAA) National Weather Service</td>
<td>NOAA forecasts and advisories are issued every six hours at 0300, 0900, 1500, and 2100 Coordinated Universal Time (UTC).</td>
</tr>
<tr>
<td>Flood, Precipitation, &amp; Storm Prediction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long Duration Hazards</td>
<td>NOAA nowCOAST REST Service</td>
<td>NOAA nowCOAST downloads, processes, and displays hazards map data every 4 minutes.</td>
</tr>
<tr>
<td>Short Duration Hazards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wildfire</td>
<td>GeoHEALTH USA Wildfire Activity REST Service</td>
<td>Events displayed occurred within the past 7 days.</td>
</tr>
<tr>
<td>Seismic Activity</td>
<td>USGS Earthquake Activity REST Service</td>
<td>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.</td>
</tr>
</tbody>
</table>

*For additional information on lookback periods for specific DME and devices, review the HHS emPOWER Map data information tab. Updated: 9/20/2021*
HHS emPOWER REST SERVICE_PUBLIC: PRACTICE

Use HHS emPOWER Map’s de-identified data to understand, anticipate, and respond to the needs of electricity-dependent populations and implement targeted activities across the emergency management cycle.

CMS & ASPR

Public Health Authorities & Emergency Managers

Partner with State, Regional, and Local Partners (as appropriate)

Preparedness: Assess and establish plans, contracts, capabilities, and communications for DME needs in shelters, charging stations, and pre-event power restoration planning.

Response: Activate plans, capabilities, and contracts to support population needs; assess supplier capacity for continuity of care of DME and community-based health care services; and inform power restoration prioritization during the emergency.

Recovery: Prioritize DME and health care suppliers’ access to shelters and/or community for DME service (e.g., supplies, repair, replacement services) to expedite care and safe return to home or other location.

Mitigation: Integrate power needs into shelters; develop potential recharging stations; and potentially expedite other resources and transportation to support continuity of DME and other health care services in future emergencies.

Federal Medicare De-identified HHS emPOWER REST Service_Public

State, territory, county, and ZIP Code specific de-identified data on the HHS emPOWER REST Service

Exercise: Access and Add Data Layers

Example Scenario: Santa Clara County, California, is facing severe wildfires from two adjacent counties and has planned emergency public safety power shutoffs (PSPS) to reduce further risk. The county public health and emergency management officials are developing evacuation and sheltering plans to protect at-risk populations and reduce stress on 9-1-1, emergency medical services (EMS), and hospitals helping those acutely injured by the fire. Follow the steps below to inform emergency planning and response activities using the HHS emPOWER REST Service_Public.

Step 1: Access the REST Service by selecting one of the GIS format links provided on the REST Service GeoHEALTH page, and consume the REST Service data layers in your GIS application of choice. Review the data layer displayed, and familiarize yourself with the Electricity Dependent DME legend. Use the legend to identify which ZIP Codes have the highest number of electricity-dependent Medicare beneficiaries in Santa Clara County.

Step 2: Next, add a data layer with wildfire events using the GeoHEALTH USA Wildfire Activity REST Service or other REST service used by your state. Note fire locations throughout the United States, and zoom in on northern California to view wildfires.

Step 3: If available, add additional data layers for the areas of planned power outages, and EMS and hospital locations to the map.

Step 4: Viewing this map, identify the following:
- The safest evacuation routes and potential assets for assistance;
- Optimal locations for shelters and baseline estimates of DME power needs;
- ZIP Codes for prioritizing response assets, deployment and staging areas to reduce surge and stress on EMS and hospitals; and
- Areas that should to be prioritized for power restoration once the wildfires have subsided.

Key Takeaways: Together, these data layers and visualization can provide critical situational awareness to support baseline planning of electricity-dependent at-risk populations in the area, and inform emergency response decision making and operations. For example, the county public health and emergency management officials can use this information to plan evacuation routes and accessible transportation needs, assess shelter locations and resources, identify and deploy other emergency response assets, and collaborate with their local healthcare coalition to prepare for acute surge from the fires. The officials can also use this information to target public communications and alerts to notify at-risk and the general population of alternate safe locations and resources available to minimize stress on 9-1-1, EMS and hospitals. Through these activities, the county is better able to prepare for and respond to the needs of its at-risk community members.

Contact empower@hhs.gov for more information

Updated: 9/20/2021