

HHS emPOWER Program

INTRODUCTION TO THE HHS emPOWER MAP

The HHS emPOWER Map is a public, interactive map that **displays the total number of at-risk electricity-dependent Medicare beneficiaries** in a geographic area, down to the ZIP Code. First responders, public health authorities, emergency managers, aging agencies, volunteer organizations, community members, and others can use the HHS emPOWER Map prior to, during, and after an incident, emergency, or disaster to anticipate, plan for, and respond to the needs of at-risk Medicare beneficiaries in their communities.

What is electricity dependency?

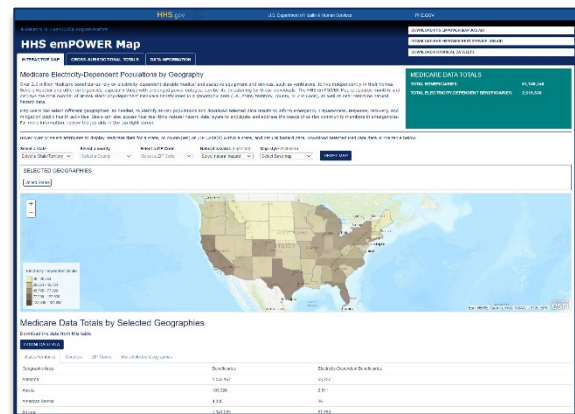
Over 2.6 million Medicare beneficiaries rely on electricity-dependent durable medical and assistive equipment and devices, such as ventilators and wheelchairs, to live independently in their homes. Incidents that cause prolonged power outages, such as severe weather or disasters, can be life threatening for these individuals. Many of these individuals may rapidly seek assistance from emergency medical services (EMS) or overwhelm hospitals or shelters when seeking access to care or secure power. Others may shelter in place as they are unable to evacuate safely without assistance, putting their lives at risk.

What data is included in the HHS emPOWER Map?

The HHS emPOWER Map displays three types of data:

- (1) Medicare claims data;
- (2) Severe weather and natural hazards; and
- (3) Geographic information system (GIS) basemaps.

The Medicare claims data is updated on a monthly basis. The weather and natural hazard data (National Oceanic and Atmospheric Administration [NOAA]/United States Geological Survey [USGS]) is updated in real or near-real time (usually hourly or daily). Specific information on the update cycle for the NOAA/USGS data can be found on the Data Information tab of the map webpage. **The map is publicly accessible at: <https://empowerprogram.hhs.gov/empowermap>.**



How can the HHS emPOWER Map help communities prepare for an emergency?

The HHS emPOWER Map enhances population-based situational awareness and provides actionable information for those assisting at-risk populations that may be impacted by severe weather, wildfires, and other disasters:











- Public health and emergency management officials can **determine shelter locations** and shelter resource needs, **plan for evacuations** by identifying potential evacuation routes, and develop improved public communications.
- Health care coalitions (HCC), hospitals, and first responders, including EMS, can **identify health care resource needs** and potential **areas of hospital and EMS surge**.
- Local electric companies can identify the areas that may require **prioritized power restoration** to protect health and save lives.
- Civic and volunteer organizations and community businesses can use the data to identify ways to **provide support to the community in an emergency**, such as providing access to power or charging stations for backup batteries.

HHS emPOWER MAP: DATA INFORMATION AND GUIDE

The Data Information tab on the HHS emPOWER Map provides details on the de-identified data and its intended use, as well as contact, privacy, and REST Service information. Refer to this guide for more detailed information on the HHS emPOWER Map's electricity-dependent medical equipment/device and natural hazards data.





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

The HHS emPOWER Map also allows users to select natural hazards layers, which provide dynamic, real-time data, on environmental conditions, as described below:

| Data Layer(s) | Source | Frequency Updated |
|---|---|--|
|  Hurricanes, Radar Flood, Precipitation, & Storm Prediction | National Oceanic and Atmospheric Administration (NOAA) National Weather Service | NOAA forecasts and advisories are issued every six hours at 0300, 0900, 1500, and 2100 Coordinated Universal Time (UTC). |
|  Long Duration Hazards Short Duration Hazards | NOAA nowCOAST REST Service | NOAA nowCOAST downloads, processes, and displays hazards map data every 4 minutes. |
|  Wildfire | GeoHealth USA Wildfire Activity REST Service | Events displayed occurred within the past 7 days. |
|  Seismic Activity | USGS Earthquake Activity REST Service | 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 Data Information tab](#).

Updated: 11/16/2020

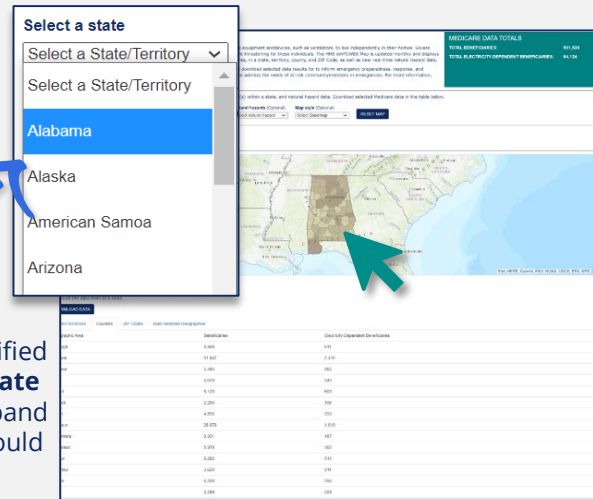
HHS emPOWER MAP: VIEWING WITHIN-STATE DATA WITH THE INTERACTIVE MAP TAB

This guide provides instructions on how to access state, county, and ZIP Code-level de-identified data using the new HHS emPOWER Map's Interactive Map tab to gather information within state boundaries.

Step 1: Visit the HHS emPOWER Map website

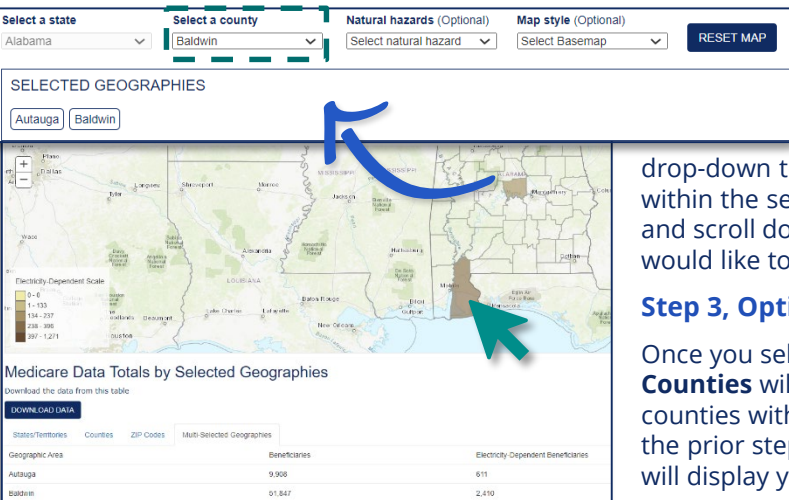
Visit the [HHS emPOWER Program Platform](https://empowerprogram.hhs.gov/empowermap), navigate to **Data & Tools** in the navigation bar, expand the options, and select **HHS emPOWER Map – Launch**.

Alternately, go directly to the map webpage by entering <https://empowerprogram.hhs.gov/empowermap> into the web browser on a computer or mobile device. Note the default webpage view is the **Interactive Map** tab.



Step 2: Select a state

Hover your cursor over the state for which you would like de-identified data and select it. Alternatively, you can navigate to the **Select a state** option in the row of drop-down menus and select the arrow to expand the list. Scroll down to select the state or territory for which you would like to view de-identified data. The **Selected Geographies** box immediately above the map will display your selection.



Step 3 (Optional): Select a county

Hover your cursor over the county for which you would like de-identified data and select it. Alternatively, you can use the **Select a county** drop-down to refine your search and view county-level data within the selected state. Select the arrow to expand the list and scroll down to find and select the county for which you would like to view de-identified data.

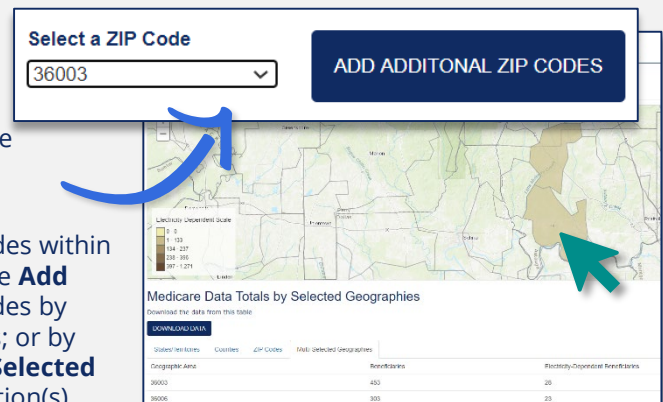
Step 3, Option 1: Select additional counties in a state

Once you select a county, a button titled **Add Additional Counties** will automatically appear. To view data for multiple counties within the selected state, select this button and repeat the prior step. The **Selected Geographies** box above the map will display your new selections.

Step 3, Option 2: Select a ZIP Code or multiple ZIP Codes within the selected county

Use the **Select a ZIP Code** drop-down to refine your search and view ZIP Code-level data within a single county. Select the arrow to expand the list and scroll down to select the ZIP Code for which you would like to view de-identified data.

There are two options for accessing data for multiple ZIP Codes within a county. After you have selected the first ZIP Code, select the **Add Additional ZIP Codes** button. Then, select additional ZIP Codes by hovering your cursor over and selecting additional ZIP Codes; or by selecting additional ZIP Codes in the drop-down menu. The **Selected Geographies** box above the map will display your new selection(s).



Updated: 11/16/2020

HHS EMPOWER MAP:

VIEWING WITHIN-STATE DATA WITH THE INTERACTIVE MAP TAB, CONT.

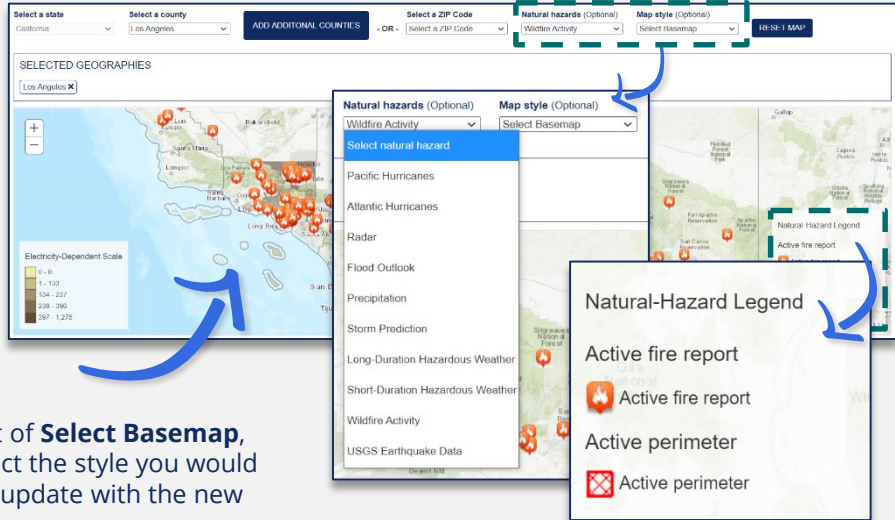
This guide provides instructions on how to access state, county, and ZIP Code-level de-identified data using the new HHS emPOWER Map's Interactive Map tab to gather information within state boundaries.

Step 4 (Optional): Select one or more map display options

For more options, use the **Natural hazards** and **Map style** drop-down menus:

NATURAL HAZARDS. Select the arrow to the right of **Select natural hazard**, scroll down to view the options, and select the natural hazard you would like to display. The map will show your selection and the associated natural hazard legend.

MAP STYLE. Select the arrow to the right of **Select Basemap**, scroll down to view the options, and select the style you would like to display. The background map will update with the new base map.



MEDICARE DATA TOTALS

TOTAL BENEFICIARIES: 1,353,702

TOTAL ELECTRICITY-DEPENDENT BENEFICIARIES: 34,671

Medicare Data Totals by Selected Geographies

Download the data from this table

[DOWNLOAD DATA](#)

| States/Territories | Counties | ZIP Codes | Multi-Selected Geographies | Beneficiaries | Electricity-Dependent Beneficiaries |
|--------------------|----------|-----------|----------------------------|---------------|-------------------------------------|
| Geographic Area | | | | | |
| 90001 | | | | 4,559 | 104 |
| 90002 | | | | 4,109 | 135 |
| 90003 | | | | 6,180 | 140 |

Step 5: Review the total number of Medicare beneficiaries

MEDICARE DATA TOTALS. In the box in the upper right-hand corner, view the total number of Medicare beneficiaries and electricity-dependent beneficiaries in selected state, county or counties, and ZIP Code(s).

ELECTRICITY-DEPENDENT SCALE. The scale in the lower left-hand corner of the interactive map will adjust to reflect the number of beneficiaries in the selected region.

MEDICARE DATA TOTALS BY SELECTED GEOGRAPHIES. In the data table below the interactive map, view the data totals for each county within a selected state or each ZIP Code within a selected county.

Step 6 (Optional): Download the data

Navigate to the **Download Data** button below the map to download the dataset based on your selection(s).

Step 7 (Optional): Reset the map to return to initial settings and start over

Find the **Reset Map** button on the far right-hand side of the row of drop-down menus. Selecting the button will reset the information displayed on the map and tables to the original settings.

Medicare Data Totals by Selected Geographies

Download the data from this table

[DOWNLOAD DATA](#)

Map style (Optional)

Streets

[RESET MAP](#)

HHS EMPOWER MAP: NAVIGATING THE CROSS-JURISDICTIONAL TOTALS TAB

This guide provides instructions on how to query Medicare beneficiary data using the HHS emPOWER Map Cross-Jurisdictional Totals tab to identify data totals for single or multiple geographies that can also cross jurisdictional boundaries, including states, territories, counties, and ZIP Codes.

Step 1: Navigate to the Cross-Jurisdictional Totals tab

Note this tab will display a data table, rather than an interactive map.

1 CROSS-JURISDICTIONAL TOTALS

Medicare Electricity-Dependent Populations by Geography

This interactive table allows users to perform Medicare beneficiary data queries to identify unique data totals for multiple geographies that can also cross jurisdictional boundaries, including states/territories, counties, and ZIP Codes. Users can select different geographies, as needed, to identify individual and aggregated data totals for the selections and also download the selected data results for additional analysis. For more information on this query capability, review the HHS emPOWER Map Job Aid in the top right hand corner.

From the options below to select Medicare data for 3 multiple states; single 4 multiple counties within a state; and/or single or multiple ZIP Codes within a county.

Select a state

Wyoming
▾

Select a county

Big Horn
▾

Select a ZIP Code

82410
▾

DOWNLOAD DATA

RESET

| STATE | COUNTY | ZIP CODE |
|---|--|---|
| Wisconsin ✕ | Adams ✕ | 53910 ✕ |
| Wyoming ✕ | Albany ✕ | |
| | Big Horn ✕ | 82410 ✕ |

Step 2: Select a single state or multiple states

Navigate to the **Select a state** option in the row of drop-down menus. Select the arrow to expand the list and scroll down to select the state/territory for which you would like to view de-identified data. Note that this action will add the selection to the table below. Repeat this action to view data for additional states/territories.

Step 3 (Optional): Select a single county or multiple counties, within a single state or across multiple states

After selecting the appropriate state, navigate to the **Select a county** option in the row of drop-down menus. Select the arrow to expand the list and scroll down to select the county for which you would like to view de-identified data. Note that this action will add the selection next to the corresponding state in the table below.

Repeat this action to view data for additional counties within that state. To add counties within a different state, repeat **Step 2** to select a different state, then add a county or multiple counties within that state.

Step 4 (Optional): Select ZIP Code(s), within a single county or across multiple counties

After selecting the appropriate county, navigate to the **Select a ZIP Code** option in the row of drop-down menus. Repeat this action to view data for additional ZIP Codes within that county. To add ZIP Codes within a different county, repeat **Step 3** to select a different county, then add a ZIP Code or multiple ZIP Codes within that county.

| MEDICARE DATA TOTALS | |
|----------------------|-------------------------------------|
| BENEFICIARIES | ELECTRICITY-DEPENDENT BENEFICIARIES |
| 6,940 | 855 |
| 1,043 | 59 |
| 5,369 | 750 |
| 528 | 46 |

In the two leftmost, **Medicare Data Totals** columns, view the total number of Medicare beneficiaries and electricity-dependent beneficiaries based on your selection(s).

Step 5 (Optional): Download the data and reset the table

Navigate to the **Download Data** button on the far right-hand side of the row of drop-down menus to download the dataset based on your selection(s). To reset the table and start over, select the **Reset** button to the right of the **Download Data** button.

DOWNLOAD DATA

RESET

Updated: 11/16/2020



HHS emPOWER MAP: PRACTICE USING THE MAP

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



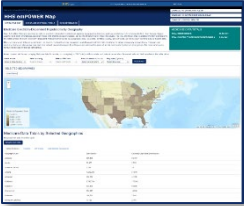
Communities



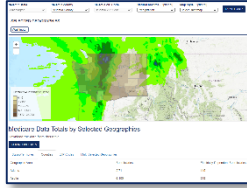
Partner with State, Regional, and Local Partners (as appropriate)

Use the HHS emPOWER Map data to answer:

How many electricity-dependent Medicare beneficiaries are there in affected ZIP Codes?



Federal Medicare De-identified HHS emPOWER Map



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

488 60453

184 60803

170 60655

842 Electricity-Dependent

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.

Exercise: Access Data for Multiple Locations

To complete the following exercises, review the information on [page 3](#) and [page 4](#). Similar scenarios may require cross-jurisdictional data. To learn how to view cross-jurisdictional data on the map webpage, review [page 5](#) of this resource.

Example Scenario: Tennessee recently experienced several tornadoes causing severe damage to homes and widespread power outages in the Nashville area. You work for a community organization that is coordinating with public health authorities and emergency managers in the affected area to establish medical shelters. You are trying to estimate the number of at-risk electricity-dependent individuals in four affected counties to inform allocation of supplies, power, and other resources to shelters.

Step 1: On the Interactive Map tab of the [HHS emPOWER Map](#), navigate to the *Select a state* drop-down menu.

Step 2: Next, expand the menu and select "Tennessee" from the options. The map should resize to show the state of Tennessee.

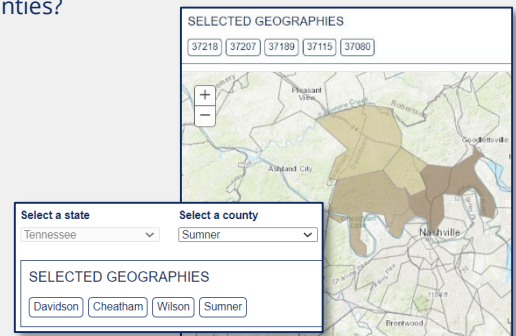
Step 3: Then, expand the *Select a county* drop-down menu and scroll down to select the first affected county: Davidson County. Select the *Add Additional Counties* button and add the following three affected counties: Cheatham County, Wilson County, and Sumner County. Your selections should appear similar to the box in the lower right-hand corner.

Step 4: Review the numbers in the *Medicare Data Totals* box in the upper right-hand corner of the webpage. How many electricity-dependent Medicare beneficiaries reside collectively in these four counties?

Step 5: Now you would like to determine shelter needs in one of the most densely populated counties in this area: Davidson County. Deselect the other counties by selecting the X near each county name listed under *Selected Geographies*.

Step 6: Select the first affected ZIP Code in the county using the *Select a ZIP Code* drop-down menu: 37218. Next, select the *Add Additional ZIP Codes* button to add 37207, 37189, 37115, and 37080. The map will reposition to show just the county with the selected ZIP Codes highlighted, similar to the map at right.

Step 7: Review the figures in the *Medicare Data Totals by Selected Geographies* table. Which ZIP Code has the highest density of electricity-dependent Medicare beneficiaries?



Updated: 11/16/2020

