

HHS emPOWER Initiative

Using Federal Health Data and Mapping to Advance
Emergency Preparedness, Response, Recovery and Resilience



Data
Awareness
Preparedness
Resilience



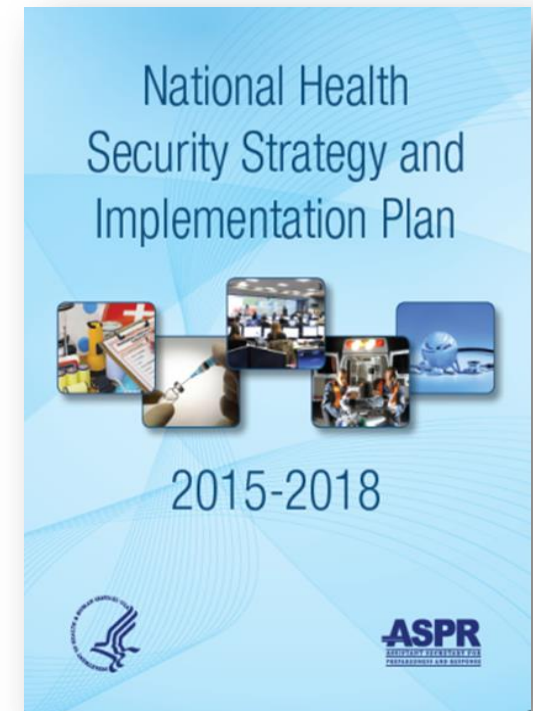
Kristen P Finne
Lead, HHS emPOWER Initiative
Senior Policy Analyst, Division of Health Systems Policy
Office of the Assistant Secretary for Preparedness and Response
U.S. Department of Health and Human Services

National Health Security Strategy and Implementation Plan 2015-2018

1
Build and sustain healthy, resilient communities.

2
Ensure comprehensive health situational awareness to support decision-making before incidents and during response and recovery operations.

4
Enhance the integration and effectiveness of the public health, healthcare, and emergency management systems.



URL: <http://www.phe.gov/Preparedness/planning/authority/nhss/Pages/default.aspx>

Do you know who lives in your community and what their needs are?

Can we better understand, assess, and mitigate disaster-induced healthcare system stress and its impact on access, utilization, and health outcomes for at-risk populations?

Can we help a community better understand how many at-risk populations rely upon electricity-dependent medical and assistive devices, healthcare services, and their local healthcare system- daily, weekly, monthly?



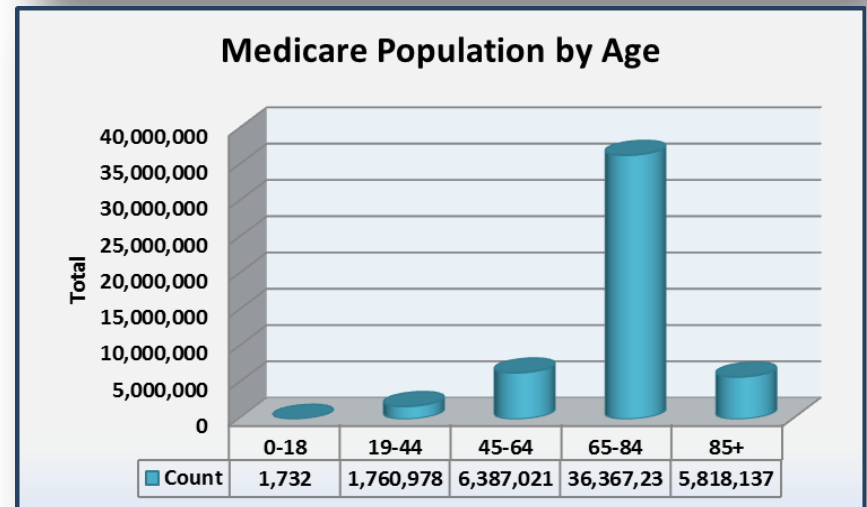
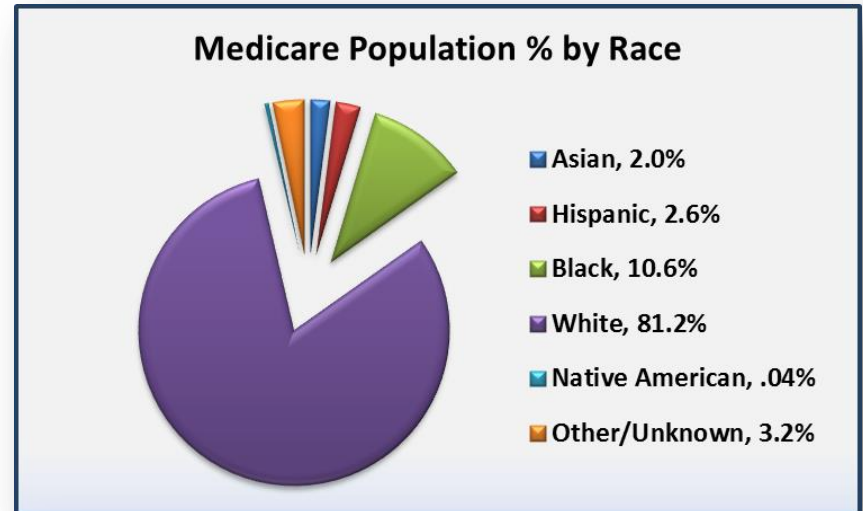
ASPR: Resilient People. Healthy Communities. A Nation Prepared.

- **Medicare insures 50 million Americans**

- 50 states, 5 territories, & DC
- 65+ years, blind, disabled adults & children
- ~93% of dialysis-dependent end-stage renal disease population
- ~20% of State Medicaid (mostly disabled)

- **Medicare beneficiaries may reside in:**

- personal homes
- residential or long-term care facilities
- assisted living communities
- board and care homes
- subsidized housing communities





White House Strong Cities, Strong Communities Initiative

“ A First-in-the-Nation At-Risk Medicare Data Pilot Exercise”

City of New Orleans, June 10-11, 2013



- **611 Had a Ventilator or Oxygen Concentrator**

- 191 homes visited, 75% response rate
- 93% had Medicare-identified durable medical equipment (DME)

- **Individual Preparedness Findings:**

- 15 of 611 were enrolled in NOLA’s registry
- 8 of 611 were enrolled in electric company’s registry
- 41% did not have an emergency plan
- 55% would need assistance in an emergency

NOLA Emergency Response Outreach Uses:

- 2013 Boil Water Emergency- enteral DME
- 2014 Ice Storm- early dialysis



Dr. Nicole Lurie, U.S. Department of Health and Human Services Assistant Secretary for Preparedness and Response, with Dr. Karen DeSalvo, Health Commissioner for the City of New Orleans Health Department in June 2013

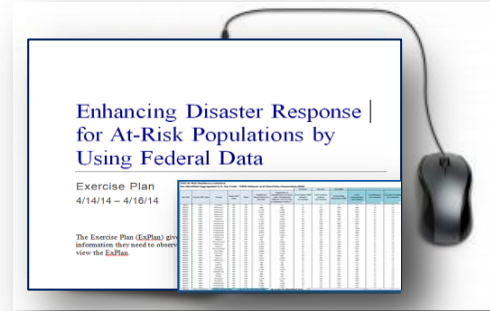


HHS emPOWER Initiative

“HHS’ Data and Mapping Quality Improvement Partnership”



DATA



TOOLS



MAPS

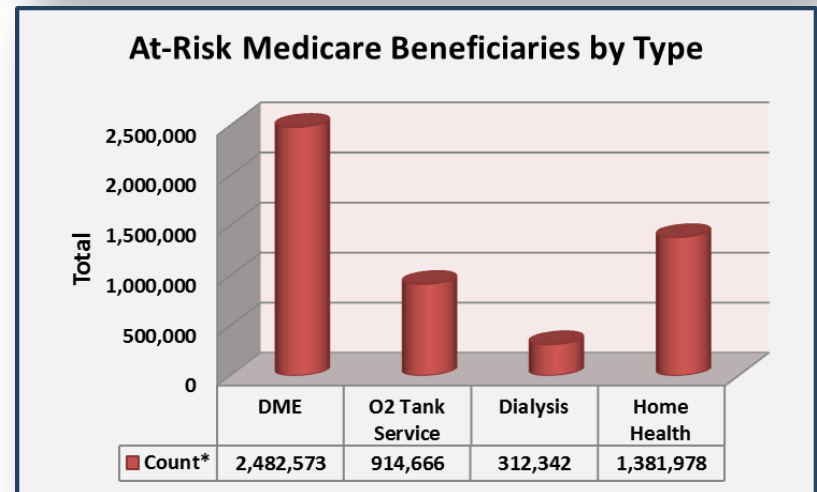
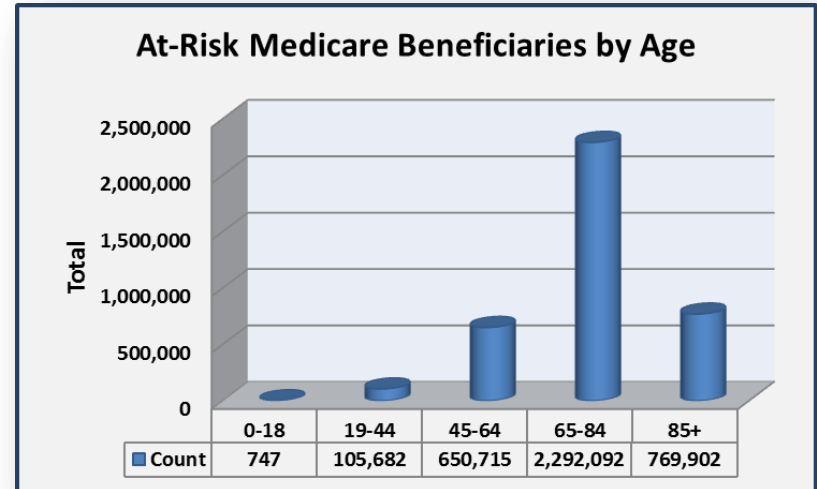


National HHS emPOWER Dataset

Data as of 8/28/15



- **3.8M at-risk Medicare beneficiaries living at home independently**
- **Medicare at-risk data types include:**
 - Electricity-Dependent Durable Medical Equipment (DME)
 - Ventilators
 - Oxygen concentrators
 - Enteral feeding machines
 - Intravenous (IV) pumps
 - Suction pumps
 - At-home dialysis machines
 - Electric Wheelchairs/scooters
 - Electric Beds
 - Oxygen (O²) Tank Services
 - Dialysis Services (facility/home)
 - Home Health Services
- **Medicare at-risk data types include:**
 - De-identified-restricted & public
 - Individual-restricted to public health authorities





How Can the HHS emPOWER Initiative Help?

“Right Data. Right Tool. Right Person. Right Time.”



Community Partners

Open

De-identified Data

Preparedness, Response, Recovery, Resilience

Public Health Authority ESF-8/6 Support

Restricted Information

De-identified Data

Preparedness, Response, Recovery, Resilience

Public Health Authority-Only

Secure

Individual Data

Response/Preparedness Outreach

HHS emPOWER Map

Over 1.8 million Medicare Fee-For-Service beneficiaries rely upon electricity-dependent medical and assistive equipment, such as ventilators and wheel chairs, in our communities. Severe weather and disasters that cause power outages can be life threatening for these individuals.

How can we empower community and electricity-dependent Medicare beneficiary health resilience?

Every hospital, first responder, electric company, and community member can use the map to find the monthly total of Medicare beneficiaries with electricity-dependent equipment claims at the U.S. state, territory, county, and zip code level and turn on "Heat Time" NOAA severe weather tracking services to identify areas and populations that may be impacted and at risk for power outages.

Together, we can all better anticipate potential access and functional needs, emergency plan for the whole community, and assist our at-risk community members before, during, and after an emergency.

Medicare Data Totals for geographical area:

Geographic Area:	Texas	12 - 8,306	Likely
Beneficiaries:	2,164,777	8,557 - 22,178	Occurring or imminent
Electricity-Dependent Beneficiaries:	107,571	22,178 - 37,570	Possible

GeoHEALTH PLATFORM
U.S. Department of Health & Human Services

Health Infrastructure | HHS - CMS - Electricity-Dependent Durable Medical | Hurricanes | Tornado

HHS At-Risk Resiliency Initiative
De-identified Aggregated U.S. Zip Code - ESRD-Dialysis and Electricity-Dependent DME

Zip Code	County FIPS Code	Country	State	Main ZIP Code	# Medicare Beneficiaries in Zip Code	Population of Beneficiaries with a Responder in Zip Code	# ESRD Dialysis (ES months)	# Electricity-Dependent DME (ES months)	# ESRD concentrations (ES months)	# Beneficiaries (ES months)	# of Beneficiaries (ES months)
00007	004	El Paso	TX	000	0	0	0	0	0	0	0
00008	005	Jefferson	MO	000	887	53	61	145	108	11	11
00009	006	Jefferson	MO	000	1,216	2,061	39	247	248	11	11
00010	008	Jefferson	MO	000	2,475	2,539	99	137	367	370	11
00011	009	Jefferson	MO	000	2,427	2,427	0	69	369	369	11
00012	010	Jefferson	MO	000	402	442	0	23	48	46	11
00013	011	Jefferson	MO	000	1,732	1,828	0	69	369	369	11
00014	012	Jefferson	MO	000	2,736	2,510	54	202	377	349	11
00015	013	Jefferson	MO	000	1,706	1,824	0	138	250	264	11
00016	014	Jefferson	MO	000	1,071	1,024	0	143	300	312	11
00017	015	Jefferson	MO	000	1,706	1,824	0	200	442	424	11
00018	016	Jefferson	MO	000	2,624	2,491	0	130	275	278	11
00019	017	Jefferson	MO	000	2,624	2,624	0	90	277	289	11
00020	018	Jefferson	MO	000	1,371	1,350	0	66	154	140	11
00021	019	Jefferson	MO	000	946	946	0	43	80	44	11
00022	020	Jefferson	MO	000	60	60	11	11	11	0	11
00023	021	Benton	MO	000	1,112	1,112	0	100	200	200	11
00024	022	Adair	MO	000	1,212	1,212	0	100	200	200	11
00025	023	Adair	MO	000	1,882	1,723	0	115	238	220	11
00026	024	Benton	MO	000	1,212	1,212	0	100	200	200	11
00027	025	Benton	MO	000	1,882	1,798	11	70	238	220	11
00028	026	Adair	MO	000	1,544	1,468	11	140	278	271	11
00029	027	Adair	MO	000	824	681	14	40	100	100	11
00030	028	Adair	MO	000	1,871	1,871	17	119	294	281	11
00031	029	Jefferson	MO	000	2,074	1,814	0	11	11	11	11
00032	030	Ellipton	MO	000	184	184	0	21	47	45	11
00033	031	Adair	MO	000	180	284	0	21	47	45	11
00034	032	Adair	MO	000	148	148	0	21	47	45	11
00035	033	Adair	MO	000	1,767	1,674	11	76	237	239	11
00036	034	Adair	MO	000	1,128	79	11	22	20	20	11
00037	035	Adair	MO	000	1,128	79	11	22	20	20	11
00038	036	Ellipton	MO	000	185	185	0	21	47	45	11
00039	037	Ellipton	MO	000	185	712	0	21	47	45	11
00040	038	Ellipton	MO	000	185	1,728	0	21	47	45	11
00041	039	Ellipton	MO	000	185	801	11	36	111	105	11
00042	040	Adair	MO	000	1,544	1,544	11	76	237	240	11
00043	041	Adair	MO	000	1,544	1,544	11	76	237	240	11
00044	042	Adair	MO	000	1,544	1,544	11	76	237	240	11
00045	043	Adair	MO	000	1,544	1,544	11	76	237	240	11
00046	044	Adair	MO	000	1,544	1,544	11	76	237	240	11
00047	045	Adair	MO	000	1,544	1,544	11	76	237	240	11
00048	046	Adair	MO	000	1,544	1,544	11	76	237	240	11
00049	047	Adair	MO	000	1,544	1,544	11	76	237	240	11
00050	048	Adair	MO	000	1,544	1,544	11	76	237	240	11
00051	049	Adair	MO	000	1,544	1,544	11	76	237	240	11
00052	050	Adair	MO	000	1,544	1,544	11	76	237	240	11
00053	051	Adair	MO	000	1,544	1,544	11	76	237	240	11
00054	052	Adair	MO	000	1,544	1,544	11	76	237	240	11
00055	053	Adair	MO	000	1,544	1,544	11	76	237	240	11
00056	054	Adair	MO	000	1,544	1,544	11	76	237	240	11
00057	055	Adair	MO	000	1,544	1,544	11	76	237	240	11
00058	056	Adair	MO	000	1,544	1,544	11	76	237	240	11
00059	057	Adair	MO	000	1,544	1,544	11	76	237	240	11
00060	058	Adair	MO	000	1,544	1,544	11	76	237	240	11
00061	059	Adair	MO	000	1,544	1,544	11	76	237	240	11
00062	060	Adair	MO	000	1,544	1,544	11	76	237	240	11
00063	061	Adair	MO	000	1,544	1,544	11	76	237	240	11
00064	062	Adair	MO	000	1,544	1,544	11	76	237	240	11
00065	063	Adair	MO	000	1,544	1,544	11	76	237	240	11
00066	064	Adair	MO	000	1,544	1,544	11	76	237	240	11
00067	065	Adair	MO	000	1,544	1,544	11	76	237	240	11
00068	066	Adair	MO	000	1,544	1,544	11	76	237	240	11
00069	067	Adair	MO	000	1,544	1,544	11	76	237	240	11
00070	068	Adair	MO	000	1,544	1,544	11	76	237	240	11
00071	069	Adair	MO	000	1,544	1,544	11	76	237	240	11
00072	070	Adair	MO	000	1,544	1,544	11	76	237	240	11
00073	071	Adair	MO	000	1,544	1,544	11	76	237	240	11
00074	072	Adair	MO	000	1,544	1,544	11	76	237	240	11
00075	073	Adair	MO	000	1,544	1,544	11	76	237	240	11
00076	074	Adair	MO	000	1,544	1,544	11	76	237	240	11
00077	075	Adair	MO	000	1,544	1,544	11	76	237	240	11
00078	076	Adair	MO	000	1,544	1,544	11	76	237	240	11
00079	077	Adair	MO	000	1,544	1,544	11	76	237	240	11
00080	078	Adair	MO	000	1,544	1,544	11	76	237	240	11
00081	079	Adair	MO	000	1,544	1,544	11	76	237	240	11
00082	080	Adair	MO	000	1,544	1,544	11	76	237	240	11
00083	081	Adair	MO	000	1,544	1,544	11	76	237	240	11
00084	082	Adair	MO	000	1,544	1,544	11	76	237	240	11
00085	083	Adair	MO	000	1,544	1,544	11	76	237	240	11
00086	084	Adair	MO	000	1,544	1,544	11	76	237	240	11
00087	085	Adair	MO	000	1,544	1,544	11	76	237	240	11
00088	086	Adair	MO	000	1,544	1,544	11	76	237	240	11
00089	087	Adair	MO	000	1,544	1,544	11	76	237	240	11
00090	088	Adair	MO	000	1,544	1,544	11	76	237	240	11
00091	089	Adair	MO	000	1,544	1,544	11	76	237	240	11
00092	090	Adair	MO	000	1,544	1,544	11	76	237	240	11
00093	091	Adair	MO	000	1,544	1,544	11	76	237	240	11
00094	092	Adair	MO	000	1,544	1,544	11	76	237	240	11
00095	093	Adair	MO	000	1,544	1,544	11	76	237	240	11
00096	094	Adair	MO	000	1,544	1,544	11	76	237	240	11
00097	095	Adair	MO	000	1,544	1,544	11	76	237	240	11
00098	096	Adair	MO	000	1,544	1,544	11	76	237	240	11
00099	097	Adair	MO	000	1,544	1,544	11	76	237	240	11
00100	098	Adair	MO	000	1,544	1,544	11	76	237	240	11



NOTE: All data are fictitious and used for illustrative purposes only

Initial Spring Order	First Name	Last Name	Date of Birth	PO Box or Unknown Address	Care/OP Indicator	Salutation	Street Address 1	Street Address 2	City	State	Zip Code	Parent Zip Code	Currently in Nursing Home?	Dual Eligible?
1	Anne	Smith	November 4, 1944	0	0	Adm Park Manor Home For A Senti	57 Conroy Street		Brooklyn	NY	Brooklyn	11201		Yes
2	Amy	Brown	February 19, 1955	0	0	O/O Geriatric Care Ctr	150 Clear Street		Brooklyn	NY	Brooklyn	11201		Yes
3	John	Taylor	December 20, 2010	0	1		1500 Bay Ridge Ave		Brooklyn	NY	Brooklyn	11214	11201	Yes
4	Jane	Doe	March 4, 1965	0	1		1500 Bay Ridge Ave		Brooklyn	NY	Brooklyn	11214	11201	Yes
5	Robert	Walker	May 20, 1950	0	0		1500 Bay Ridge Ave	First Floor	Brooklyn	NY	Brooklyn	11214	11201	Yes
6	Mary	Johnson	September 14, 2012	1	0		17 112th Place		Queens Village	NY	Queens Village	11427		Yes
7	William	Jones	December 1, 1953	0	0	Dev Ctr For David Robinson	100 E 105 St		Bronx	NY	Bronx	10469		10465
8	David	Robinson	July 25, 1956	0	0		PO Box 205537		Bronx	NY	Bronx	10469		10465
9	Carli	Davis	July 24, 1952	1	0		PO Box 150,044		Brooklyn	NY	Brooklyn	11239		

HHS emPOWER Map

Community Public Map-- People Helping People at the Zip Code Level

U.S. Department of Health & Human Services
Office of the Assistant Secretary for Preparedness and Response

Preparedness Emergency About ASPR

Public Health Emergency

Public Health and Medical Emergency Support for a Nation Prepared

HHS emPOWER Map

Over 2.4 million Medicare beneficiaries rely upon electricity-dependent medical and assistive equipment, such as ventilators and wheel chairs, in our communities. Severe weather and disasters that cause power outages can be life threatening for these individuals.

How can we empower community and electricity-dependent Medicare beneficiary health resilience?

Every hospital, first responder, electric company, and community member can use the map to find the monthly total of Medicare beneficiaries with electricity-dependent equipment claims at the U.S. state, territory, county, and zip code level and turn on "real-time" NOAA severe weather tracking services to identify areas and populations that may be impacted and at risk for power outages.

Together, we can all better anticipate potential access and functional needs, emergency plan for the whole community, and assist our at-risk community members before, during, and after an emergency.

Medicare Data Totals (for geographical area)		Electricity-Dependent	National Flood Outlook
Geographic Area:	Fort Bend	0	Likely
Beneficiaries:	35,812	1 - 1,577	Occurring or Imminent
Electricity-Dependent Beneficiaries:	1,226	1,578 - 3,524	Possible

State

Medicare Data Totals (for geographical area)		Electricity-Dependent	National Flood Outlook
Geographic Area:	Fort Bend	0	Likely
Beneficiaries:	35,812	1 - 1,577	Occurring or Imminent
Electricity-Dependent Beneficiaries:	1,226	1,578 - 3,524	Possible

County

Medicare Data Totals (for geographical area)		Electricity-Dependent	National Flood Outlook
Geographic Area:	Fort Bend	0	Likely
Beneficiaries:	35,812	1 - 93	Occurring or Imminent
Electricity-Dependent Beneficiaries:	1,226	94 - 171	Possible

Zip Code

Medicare Data Totals (for geographical area)		Electricity-Dependent	National Flood Outlook
Geographic Area:	77489	0	Likely
Beneficiaries:	2,900	1 - 93	Occurring or Imminent
Electricity-Dependent Beneficiaries:	157	94 - 171	Possible

"Medicare Data Meets NOAA Weather Data In Your Community"

www.phe.gov/empowermap

HHS emPOWER Initiative

Health Department De-identified Emergency Planning Datasets

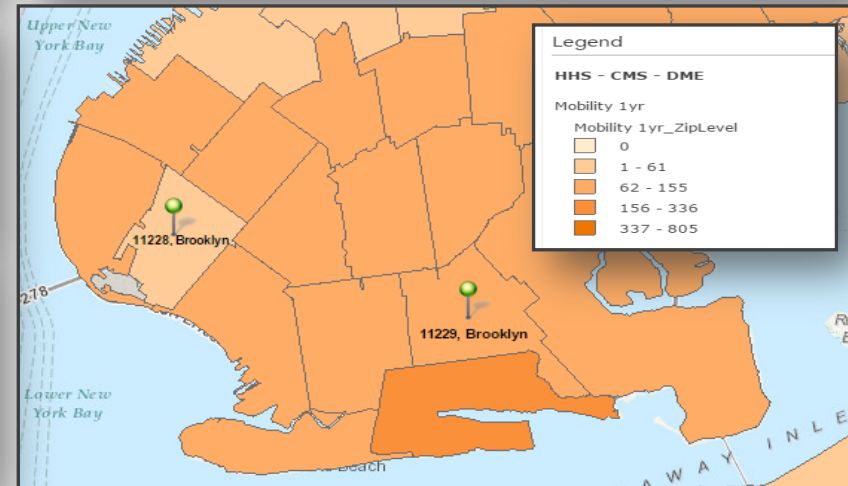
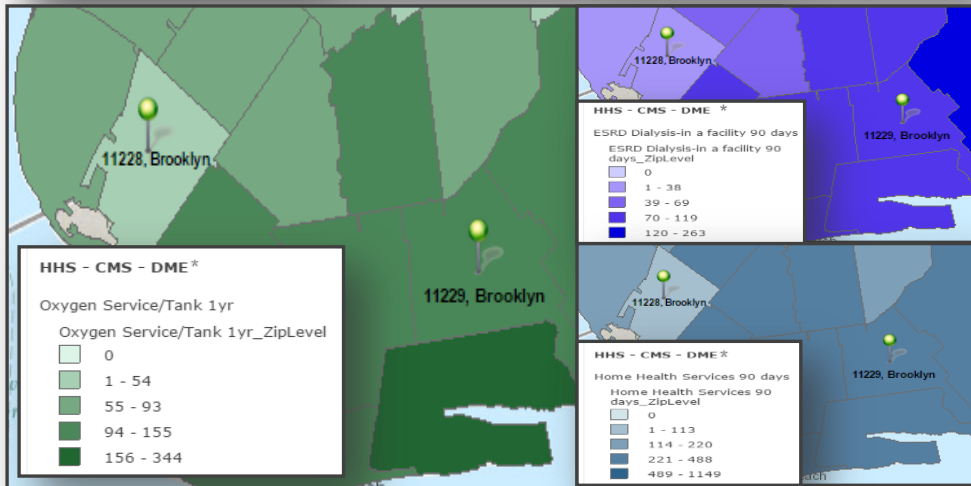
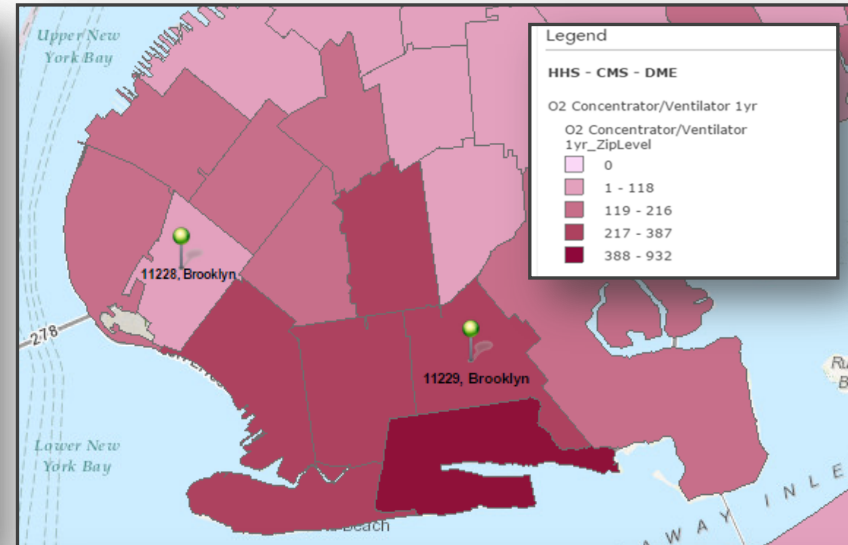
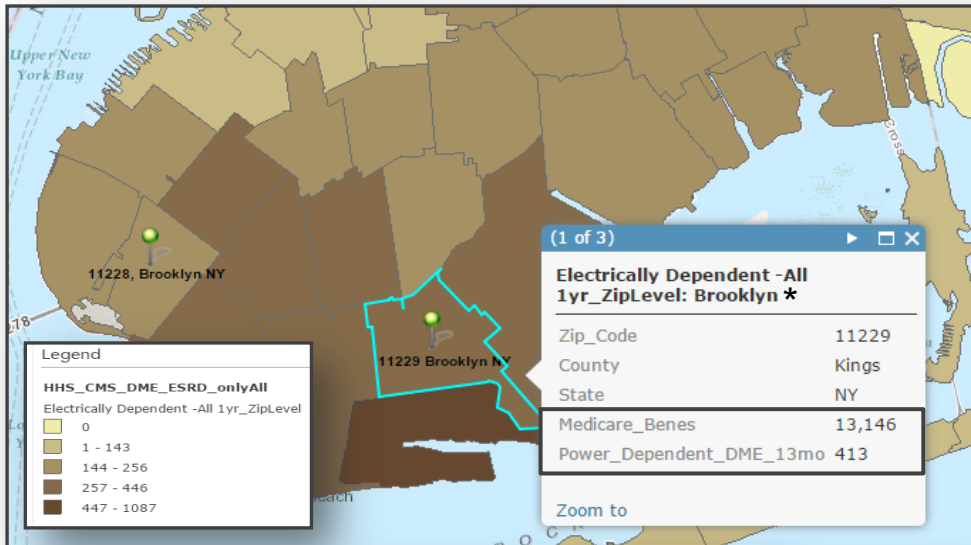
- Provides more granular de-identified data:
 - Medicare totals by type of DME and healthcare services
- Sample Use Cases:
 - Informing power restoration prioritization decision making at all levels
 - Identifying optimal locations, support, and power needs for multiple devices in general population shelters
 - Assessing potential transportation needs for evacuating or transport to healthcare providers (e.g. dialysis)
 - Anticipating potential EMAC requests for at-risk populations residing by borders
 - Sets the stage for life-saving assistance

HHS emPOWER Initiative State/Territory CMS Emergency Planning Dataset												
Zip Code	County FIPS Code	County	State FIPS Code	State	# Medicare Beneficiaries in Zip Code	Population of Beneficiaries at home with a Residential Address, not P.O. Box or Unknown in Zip Cc	# In-Facility ESRD (Dialysis (3 months))	# O2 services (Tank) (13 months)	# Electricity-Dependent DME	# O2 concentrators (36 months)	# Ventilators (13 months)	# Enteral Feeding (13 months)
80027	041	El Paso	08	CO	0	0	0	0	0	0	0	0
80002	059	Jefferson	08	CO	896	887	11	47	116	106	11	11
80003	059	Jefferson	08	CO	1,719	1,481	13	105	247	242	11	11
80004	059	Jefferson	08	CO	2,471	2,329	19	157	387	370	11	11
80005	059	Jefferson	08	CO	1,867	1,482	11	69	186	182	11	11
80007	059	Jefferson	08	CO	452	443	0	22	48	46	0	11
80010	001	Adams	08	CO	1,722	1,595	34	94	165	150	11	11
80011	005	Arapahoe	08	CO	2,754	2,510	54	202	377	349	11	14
80012	005	Arapahoe	08	CO	2,701	2,524	82	138	285	264	11	11
80013	005	Arapahoe	08	CO	3,071	3,028	20	143	330	311	11	11
80014	005	Arapahoe	08	CO	3,758	3,671	25	200	442	418	11	11
80015	005	Arapahoe	08	CO	2,614	2,495	18	110	275	258	11	11
80016	005	Arapahoe	08	CO	2,670	2,634	11	90	277	269	11	11
80017	005	Arapahoe	08	CO	1,371	1,350	19	66	154	140	11	11
80018	005	Arapahoe	08	CO	363	356	11	17	45	44	0	11
80019	001	Adams	08	CO	63	62	11	11	11	11	0	0
80020	014	Broomfield	08	CO	2,152	2,032	15	100	250	233	0	11
80021	059	Jefferson	08	CO	1,215	1,146	11	56	159	146	11	11
80022	001	Adams	08	CO	1,852	1,723	30	115	238	220	11	11
80023	014	Broomfield	08	CO	1,319	1,306	11	26	114	107	0	11
80026	013	Boulder	08	CO	1,882	1,798	11	73	219	202	11	11
80027	013	Boulder	08	CO	1,844	1,446	11	50	173	171	0	0
80030	001	Adams	08	CO	824	681	14	43	105	101	0	0
80031	001	Adams	08	CO	1,877	1,853	11	90	224	215	11	11
80033	059	Jefferson	08	CO	2,074	1,914	17	115	291	280	11	11
80101	039	Eibert	08	CO	58	48	0	11	11	11	0	0
80102	001	Adams	08	CO	330	265	11	21	47	45	11	0
80103	001	Adams	08	CO	199	118	0	12	25	24	0	0
80105	005	Arapahoe	08	CO	1,767	1,634	11	75	210	199	11	11
80106	039	Eibert	08	CO	128	70	11	11	22	20	0	11
80107	039	Eibert	08	CO								
80108	035	Elbert	08	CO								
80109	035	Elbert	08	CO								
80110	005	Arapahoe	08	CO								
80111	005	Arapahoe	08	CO								
80112	005	Arapahoe	08	CO								



HHS EmPOWER Data At Work In GeoHealth

Informing Local Planning Scenarios & Response Decision Making



* Adjusted Totals- Medicare beneficiaries are only counted once even if they have multiple types of durable medical equipment (DME) or healthcare service



HHS emPOWER Initiative

Emergency Response Outreach Individual Dataset

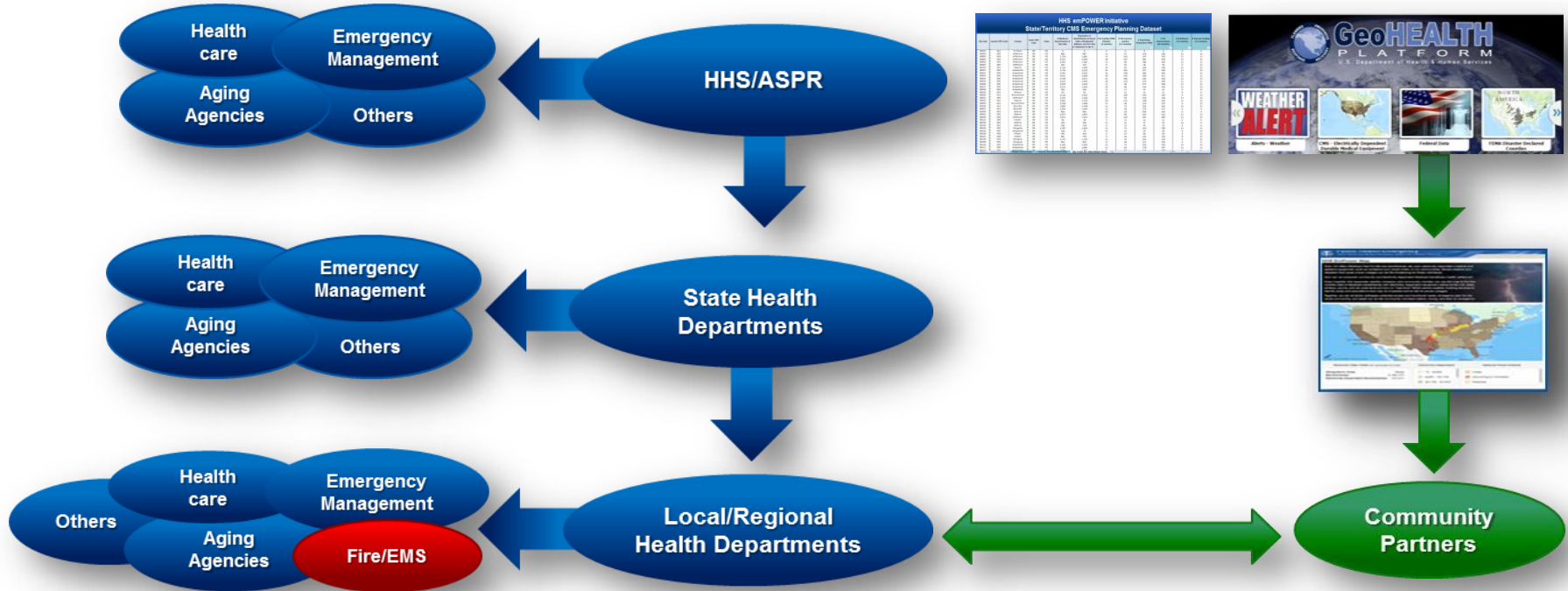


- Purpose is to conduct outreach prior to, during, or after an incident, public health emergency, or disaster that may adversely impact at-risk populations
- Examples of individual outreach use cases:
 - HHS approved preparedness exercises:
 - *City of New Orleans, State of Arizona, Broome County/New York State, City of Chicago*, New York City**
 - HHS approved emergencies:
 - *City of New Orleans Boil Water Emergency, Dialysis/Ice Storm Emergency*
 - *Future Responses*
- Public health authorities that meet HIPAA requirements can submit a request to HHS via their ASPR Regional Administrator (RA)/Emergency Coordinators (RECs)



HHS emPOWER Initiative

Integrating Public Health, Emergency Management, Healthcare, & Aging Systems



Pre-Event Emergency Planning (De-identified):

- Population-Based Situational Awareness
- Emergency Planning Activities & Plans
- Develop Systems, Processes & Triggers
- Identify Resources for Scenarios
- Sets Stage for Life-Saving Outreach
- Other Considerations

Emergency Response & Notification (De-identified/Individual):

- Activate Emergency Plans
 - Population Based
 - Individual Outreach
- Deploy Emergency Response Assets
- Activate Communications Network
- Other Considerations

Questions





Contact Information



HHS emPOWER Initiative Contact:

Kristen P. Finne

Lead, HHS emPOWER Initiative

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Office of the Assistant Secretary for Preparedness and Response

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HHS emPOWER Map: www.phe.gov/empowermap

Web: www.phe.gov

ASPR Tools & Resources—More to come!

- HHS emPOWER Map (emPOWER): www.phe.gov/empowermap
- HHS GeoHealth Platform (formerly MedMap): www.geohealth.hhs.gov
- HHS Technical Resources Assistance Center and Information Exchange (TRACIE) <https://asprtracie.hhs.gov/>
- HHS Response and Recovery Resources Compendium:
<http://www.phe.gov/emergency/hhscapabilities/Pages/default.aspx>

ASPR on the Web



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www.phe.gov



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ASPR TRACIE:
asprtracie.hhs.gov



HHS emPOWER Map:
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