HHS emPower Map for Disaster Response & Planning

About the Customer

The U.S. Department of Health and Human Services (HHS). Office of the Assistant Secretary for Preparedness and Response (ASPR) was created under the Pandemic and All Hazards Preparedness Act in the wake of Katrina to lead the nation in preventing, preparing for, and responding to the adverse health effects of public health emergencies and disasters. ASPR focuses on preparedness planning and response; building federal emergency medical operational capabilities; countermeasures research, advance development, and procurement; and grants to strengthen the capabilities of hospitals and health care systems in public health emergencies and medical disasters.

The Challenge

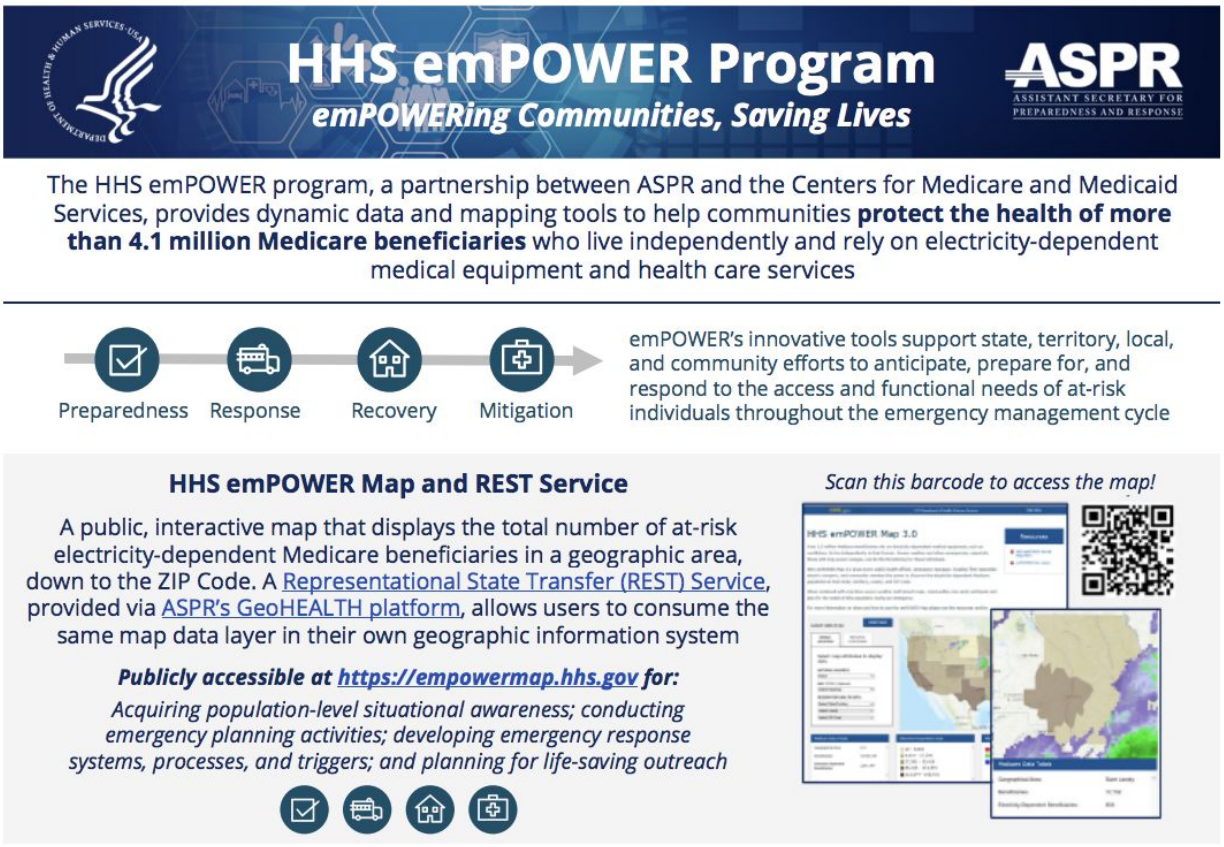
Federal, State, and Local Emergency and Health first-responders could not plan for at-risk populations, such as those with Electricity Dependent Medical devices in their home who could be significantly impacted by extreme weather events.

AWS Solution

Leveraging the Amazon Web Services (AWS) platform CTAC consolidated HHS data and created AWS cloud-native easy to use “heat map” application that provides population estimates for Electricity Dependent devices for zip code, state(s), and national counts. This is a publicly available application is updated with the latest data in real time. Furthermore, we have integrated with National Oceanic Atmospheric Administration (NOAA) and United States Geological Survey (USGS) to provide real-time extreme weather events and forecasts to further assist in identifying populations either at risk or potentially at risk. We have also created a public API where organizations can load our data directly to their pages or applications. To ensure data availability, CTAC is utilizing AWS CloudFront for caching and AWS Lambda Edge for HTTPS enforcement.

Benefits and Next Steps

During the Hurricanes of 2017, emPOWER was used extensively by preparedness responders to plan for and move those individuals who could have life threatening complications without electricity for their home devices. Furthermore, emPOWER is hosted on AWS Cloud utilizing services including services highly available and redundant services redundant such as DynamoDB, S3, Lambda, and CloudFront; which has enabled the emPower map to remain highly available during recent natural disasters around the country. Regardless, of local or regional outages users will still be able to access the application thanks to Amazon's scaling and reliability. The true impact of emPOWER can be found when discussing the lives that have been saved and individuals impacted because they were identified before, during or after and emergency responders can and do assist those with Electricity Dependent devices.



Source: https://empowermap.hhs.gov/Fact%20Sheet_emPOWER_FINALv5_508.pdf

About CTAC

Communications Training Analysis Corporation (CTAC), a small business and the proposed prime contractor, has been a trusted information technology partner of Federal, State, and local governmental agencies, as well as the private sector, for over 22 years. CTAC has assisted and guided our clients to continuous success in reaching mission critical goals and objectives while exceeding expectations and providing rapid

delivery of products and services. We continually enhance agency digital strategy with an “as-a-service” based approach to delivering technological innovations for effective Government operations and excellence in digital content Delivery. CTAC’s project management which follows agile methodologies allows us to have the ability to meet all of the delivery requirements specified in the SOW on-time and within budget. CTAC has managed fixed-price cloud computing contracts at CPSC and beyond as a prime contractor on multiple occasions.

CTAC is an Advanced AWS Partner which has a number of advantages to our customers, including 18 AWS certified professional cloud solution and DevOps architects with the ability to design, architect, build, migrate, and manage workloads and applications on AWS, as well as access to a range of resources and training to support our customers in deploying, running, and managing applications in the AWS Cloud. In CTAC’s case, we are also a Value-Added Reseller with AWS cloud solutions on our GSA IT 70 Federal Supply Schedule. CTAC is an Amazon Advanced partner, AWS letter of supply/GSA schedule holder, and leading provider of WordPress and Drupal platforms on Amazon AWS. CTAC solutions currently power top level domains (and subdomains) such as HHS.gov, GSA.gov, CPSC.gov, and USA.gov.

CTAC’s cloud services focus on these important activities and deliverables:

- Disaster Preparedness and Response
- Cloud Orchestration and Cost Management with a proven ROI
- Migration from or Secure Integration with Existing On-Premise Environments
- SysOps, DevOps, and Agile Application & MicroService Development
- Serverless Architectures and Internet of Things (IoT)
- FedRAMP PaaS and SaaS solutions
- 24/7/365 AWS Cloud Technical and Billing Support