



PUBLIC HEALTH SECTOR

USING DATA TO IMPROVE OUTBREAK RESPONSE FOR THE CDC



The Objective: Accurate & Available Data

Speed is crucial when it comes to outbreaks. For the Centers for Disease Control (CDC) to accomplish its goal of public health protection and awareness, they need to be able to work with state and local health partners to rapidly share case-related data. And this data must be accurate. Outbreaks happen and spread quickly, and the data needs to be analyzed and shared among the necessary partners to communicate warnings to the public about ongoing outbreaks linked to contaminated food or infected animals, recalls, or to help make decisions regarding other actions that need to be taken.



The Challenge: Streamline the Platform

The Division of Foodborne, Waterborne, and Environmental Diseases (DFWED) protects public health nationally and internationally through the prevention and control of disease, disability, and death caused by foodborne, waterborne, and environmentally transmitted infections. The division has five branches within DFWED, including Outbreak Response and Prevention Branch (ORPB) and Enteric Diseases Epidemiology Branch (EDEB). To service those branches, the CDC implemented SEDRIC or the System for Enteric Disease Response, Investigation and Coordination. This platform pulls in data from a variety of sources and has over 450 users so it needs to be accurate, available, and usable so that the CDC can make the correct recommendations concerning outbreak prevention and resolution as well as work to identify trends. But, the platform requires ongoing work and maintenance to make sure that this data continues to be useful.



The Solutions:

Patches & Upgrades

We build and release the necessary patches and upgrades in this system. We also identify and quickly fix any system failures or bugs.

Customized Ontology

Not all data coming in is in the same format—it could be in case notes, reports, or simply numbers. The ontology of the software system that PVM helps to define and customize for the CDC, allows this variety of data to be accurately categorized.

Dashboard Creation & Communication

We've built internal dashboards for CDC users to understand the data coming in from a variety of different sources. These dashboards enable CDC users to share information back to their different state, federal, and local, partners to provide 360 communication and analysis.

Migrating & Mapping

We are also working on an additional implementation for another software system which tracks Listeria and Vibrio cases. Here, we are migrating, mapping the data, and linking database systems to build a more comprehensive tool.

Training & Security

PVM engineers have, and will continue, to train users on these two platforms as they grow and evolve. We also continually make sure the data is protected and user groups are only able to access their own specific sets of information.