



NATIONAL INFORMATION EXCHANGE MODEL

SUCCESS STORY

Centers for Disease Control Prevention

NIEM Leveraged to Build Public Health Emergency Preparedness and Response Exchange Requirements

In a public health crisis, the Centers for Disease Prevention and Control (CDC) must be ready to respond quickly and to scale, bringing highly trained experts together to respond faster, make better decisions, and manage resources most effectively. The exponential growth of all-hazard Public Health (PH) Emergency Management (EM) data, combined with the lack of interoperable data exchange, impeded effective Whole-of-America emergency response due to the inability to rapidly transform critical data into decision generating analytics and products.

The CDC's Situational Awareness Branch (SAB) resides in the CDC's Center for Preparedness and Response and the Division of Emergency Operations. The branch supports national and international partners in collecting, extracting, transforming, analyzing and visualizing data for decision support, with the mission to improve public health emergency planning and response.

Interoperable electronic exchange and sharing of critical EM data is imperative to identifying, characterizing, and apply interventions and countermeasures to effectively respond to immediate or emerging PH threats. Interoperable electronic exchange and the sharing of critical Emergency Operating Center's (EOC) emergency management data is imperative in identifying, characterizing, and applying interventions and countermeasures to effectively respond to immediate or emerging public health threats.

Using NIEM, the CDC successfully challenged ineffective paradigms, garnered partnership support, and rallied resources across jurisdictional lines to develop and validate public health emergency preparedness and response Information Exchange Requirements, Minimum Data Set (MDS), and a standardized vocabulary. The result ensures all-hazards data interoperability to support effective public health data sharing at the State, National, and International levels.

SAB co-authored and supported development of the World Health Organization's (WHO) [WHO EOC-NET Framework \(2015\)](#). SAB led the coordination and development the CDC's EOC Public Health Emergency Management's first-ever minimum dataset, standard vocabulary, and code.

“This first-of-its-kind accomplishment cannot be overstated for the impact and potential to improve the speed and accuracy of automated data sharing and reporting during domestic and international multi-sectorial emergency response.

The result is improved data interoperability with the data elements, value sets, definitions, relationships, and formats necessary for fast and accurate automated sharing of required data, reports, and analytical products.

Correcting long-standing deficiencies, these efforts delivered a functional model, a common vocabulary, and a public health to deliver interoperable data and reporting to over 27 Global Health Security countries, all 50 States, and hundreds of agencies and communities.”

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