



Project Sponsored by
the United States Department of Homeland
Security (DHS)
Countering Weapons of Mass Destruction
Office (CWMD)

Hosted by
the Cross-Border Threat Screening and
Supply Chain Defense Center (CBTS)
a DHS Center of Excellence
at the Texas A&M University System

DHS-CWMD Objectives



Binational Taskforce

Integrate a triple-helix binational taskforce comprised of representatives from academia, industry and government from the U.S. and Mexico, to address the public health impacts of the COVID-19 pandemic on the U.S. – Mexico health supply chain systems for health infrastructure and for the health of the workforce, considering current and emerging regional social, economic and environmental Risks.



Data-Lake System

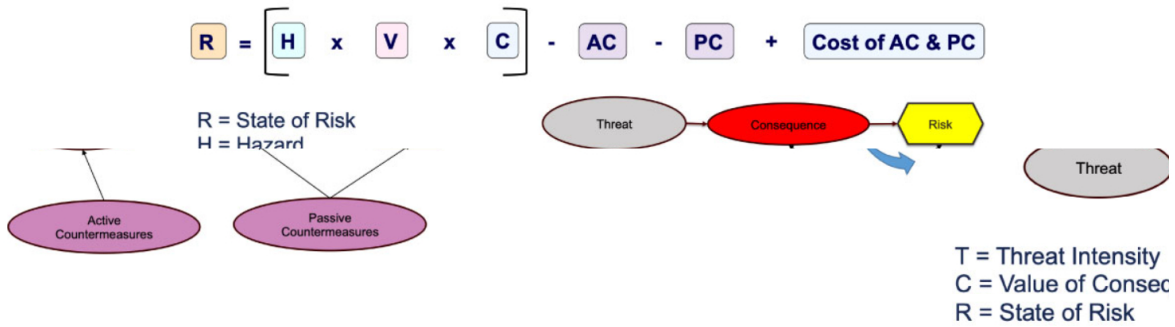
To develop a data-lake platform concentrating near real-time analytics following a Risk systems approach that can provide strategic information about the evolution of COVID-19 and related current and emerging threats, the state of vulnerability of the health supply chain systems, and the likely impacts a combination of these may cause to society, the economy and the environment.



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Bayesian Risk Decision-Making Framework

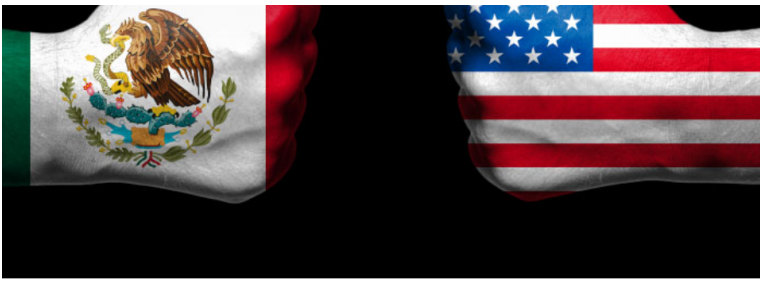


R-13 CBTS-TAMU DHS-CWMD Milestones

Binational Taskforce

- Development and integration of a binational triple-helix binational *taskforce* comprised of representatives from academia, industry and government, from the U.S. and Mexico





MEXICO:

- The *taskforce* will identify the public health impacts of the COVID-19 pandemic on the U.S. – Mexico health supply chain infrastructure systems, while accounting for the inherent cultural regional differences, and by considering the current and emerging regional social, economic and environmental Risks.

Data-Lake System



- To facilitate the identification, characterization and modeling of all participating processes posing an existing or potential *threat* to the health supply chain systems (e.g. COVID-19, seasonal infectious diseases, geopolitics, climate and weather).
- To facilitate the assessment of the current state of *vulnerability* of the health supply chain systems (e.g. physical and informational systems for procurement, manufacturing, warehousing, and transportation of health supplies and services).
- To facilitate the assessment of social, economic and environmental *impacts* that may be produced by a likely combination of threats and states of vulnerability of the health supply chain systems (e.g. fatalities, disabilities, hospitalizations, social sentiment, migration, crime, GDP, unemployment, poverty, pollution, etc.).

U.S.-Mexico COVID-19 Risk Bulletin



- A monthly *U.S.-Mexico COVID-19 Risk Bulletin* will be jointly produced, to provide scientific, technological, and strategic cultural support to secure the operation of the U.S.-Mexico health supply chain systems.
- A *report card* grading scheme will be used to define the status of *threats*, *system vulnerabilities* and *impacts* as these relate to each component of the health supply chain systems.
- The *bulletin* will include a summary of *Lessons Learned* on the U.S. and Mexico Health systems, to identify best practices that can support the regional economic development.
- In addition, the *bulletin* will include a section to populate U.S. and Mexican academic, industrial and government agencies vested on each segment of the health supply chain, with the idea of foster collaborations and exchange information that can be established to support the continuous trade operations between U.S. and Mexico.