

MOOD

MOonitoring Outbreaks for Disease surveillance in a data science context

OBJECTIVES

The MOOD project aims to develop innovative tools and services in a single platform for the early detection, assessment, and monitoring of current and potential infectious diseases threats in Europe in a context of global change and a profusion of big data in our professional routines. In order to reach this goal, MOOD is crafting a novel Epidemic Intelligence platform involving epidemiologists, data scientists, developers and social scientists. The user-driven development of the tools and services ensures their effective integration by Public Health & Animal Health (PH/AH) practitioners and surveillance officers into their epidemic intelligence/ surveillance systems and mitigation strategies.



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INVOLVING END USERS

The co-creation of the platform consists of rounds of demonstrations, workshops and meetings between MOOD developers and the end-users from PH/AH agencies. These rounds are moderated by case studies facilitators, researchers & experts for the MOOD model disease, together with the MOOD developers (Avia-GIS). MOOD developers PH/VH practitioners will visualize the prototypes of the modules to the potential end-users at PH/AH. The latter will comment, provide feedback and suggest improvements with respect to their needs in epidemic intelligence.

MOOD END-USERS ARE:



Public Health



Animal Health



One Health

A NEW PLATFORM TO ENHANCE DISEASE EMERGENCE AND RISK SURVEILLANCE IN EUROPE

The MOOD platform aims to increase the operational abilities of epidemic Intelligence and surveillance teams across national public and animal health agencies to better detect, monitor and assess emerging infectious diseases of known or unknown origin, and antimicrobial resistant pathogens.



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MODULE 1 : DATA & COVARIATES ACCESS

A one-stop "shop" for the visualization and download of relevant standardized covariates relative to the MOOD model diseases and, more generally, to infectious disease emergence in support of risk assessment and modeling.



[Learn more](#)

MODULE 2: EVENT-BASED SURVEILLANCE DATA (EBS)

A visualization tool with the possibility to download data on disease outbreaks, extracted from online media news using text mining with Padi-web, an online media monitoring tool.



[Learn more](#)

MODULE 3: DISEASE RISK MAPPING

This module provides risk maps and other modelled outputs, aiming at highlighting areas suitable for the occurrence of (mainly) specific zoonoses in animals and humans, to support improved disease detection, monitoring and surveillance.

MOOD PATHOGEN MODELS: CASE STUDIES

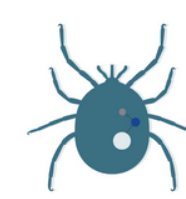


WEST NILE VIRUS

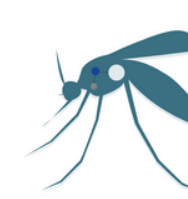
The disease-specific module (3) will be based on 7 model pathogens



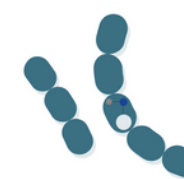
HIGHLY-PATHOGENIC AVIAN INFLUENZA



TICK-BORNE ENCEPHALITIS



CHIKUNGUNYA-DENGUE-ZIKA



TULAREMIA-LEPTOSPIROSIS



ANTIMICROBIAL RESISTANCE



DISEASE-X COVID-19

ARE YOU WORKING ON ONE OR MORE OF THESE HEALTH RISKS? THEN WE NEED YOUR FEEDBACK!

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Website



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