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ISDS INTERNATIONAL SOCIETY FOR DISEASE SURVEILLANCE

Tractable Use Cases for Collaboration in Public Health Surveillance

Stacey Hoferka[1], Caleb Wiedeman[2], Ramona Lall[3], Michael Coletta[4] and Howard Burkom*[5]

[1]Illinois Department of Public Health, Chicago, IL, USA; [2]Tennessee Department of Health, Nashville, TN, USA; [3]New York City Department of Health and Mental Hygiene, New York, NY, USA; [4]Center for Surveillance, Epidemiology, and Laboratory Services, Centers for Disease Control, Atlanta, GA, USA; [5]Johns Hopkins Applied Physics Laboratory, Laurel, MD, USA

Objective

The main objective is to broaden the collection of use cases developed by the ISDS Technical Conventions Committee (TCC) to enhance effective collaboration between public health practice and analyst researchers in various disciplines and institutions. Panellists will present and motivate use case concepts including requirements for practical solution methods. Component objectives are to refine the presented use cases and to stimulate formation of new ones at local, state, and national levels.

Introduction

The mission of the ISDS TCC is to bridge the gap between the analytic needs of public health practitioners and the expertise of researchers from other fields for the enhancement of disease surveillance, including situational awareness of chronic as well as infectious threats and follow-up activities such as case linkage and contact tracing. Committee activities to achieve this mission are identifying practical use cases, refining technical specifications in open forums, obtaining benchmark datasets for controlled dissemination, validating candidate methods, and sharing method documentation. In its first 2 years, the TCC has worked on three use cases and assisted with development of data use agreements to permit posting of benchmark datasets, http://www.syndromic.org/communities/technical-conventions. Recent polling of the Biosense User Group indicated widespread interest in developing additional use cases. The proposed panel is intended to focus on practical applications of common interest, refine the use case development and dissemination process, and foster global interest in this process.

Description

After a review of the TCC mission and process, panellists will present use cases of current and ongoing concern. Use cases to be presented are:

1) Monitoring the public health burden of extremes of heat and cold, defined by excess, all-cause morbidity and risk ratios for specific conditions in at-risk populations.

2) Enhancement of state-level and county-level surveillance for arboviral infections,

3) Using free-text chief complaints to categorize **all** Emergency Department visits for surveillance and situational awareness in a large metropolitan setting,

4) Rapid coordination of state and local surveillance findings to inform a coherent, timely regional and national health picture, from case definition to coordination/communication tools

Panellists will address the following items in the use case context:

a. Explain the use case and its public health importance.

b. Define component analytic sub-problems that could be addressed.

c. Specify the requirements of a solution useful to their institution/agency in terms of applicable features such as needed outputs products, software environment(s) and runtime, and necessary visualization.

d. Describe the envisioned application of requested methods and the benefits for workflow, reporting, or communications with other agencies.

e. List information that would be needed to address the component problems, and discuss how data might be modified, truncated, simulated, or otherwise made available to provide this information for development, with or without data use agreements.

Audience Engagement

The audience will be prompted with questions on the relevance, aspects of common utility, technical feasibility, and data availability issues related to each use case. Subsequent TCC development of each one may be launched according to attendee participation and interest. New and related use case ideas will also be solicited.

Keywords

weather-related; arbovirus; chief complaint; case definition; Technical Conventions

*Howard Burkom
E-mail: howard.burkom@jhuapl.edu