CALL FOR ABSTRACTS | 2019 Annual Conference

Invitation

The **17ᵗʰ Annual International Society for Disease Surveillance Conference**, in San Diego, California, USA, January 29ˢᵗ to February 1st, 2019, will bring together thought-leaders and researchers from public health, academia, government, nongovernmental agencies, industry and stakeholders from the public and private sectors. The Scientific Program Committee invites you to submit an abstract for the 2019 Conference.

Theme

ISDS is dedicated to the improvement of population health by advancing the science and practice of disease surveillance. We encourage submissions that address this year's conference theme –

"***Harnessing Data Science to Improve Population Health and Public Health Surveillance".***

Over the past several years, the concept of investing in Data Science and Data Scientists has been touted as transformational endeavors for governmental organizations, non-profits as well as the private sector and commercial markets.

How "true" Data Science is harnessed to influence and improve public health surveillance and population health remains to be seen. It has great potential to provide a ***new lens*** to inform and improve population health but this ***lens*** needs to focus upon more than "Big Data" analytics and information technology.   It must include fostering organizational environments and multi-agency collaborations that invigorate curiosity and experimentation; the development of cross disciplinarian partnerships to address multifactorial and multidimensional health and disparity challenges; and hone in on producing evidence-based analytic results to improve measurable health outcomes.

Analysis and summary results are not the end products for surveillance, the concept of Data Science needs to be leveraged across public health to better communicate the findings of disease surveillance to influence public health policy, the "storytelling of illness and disease", and ultimately improve population health.

Join us in the exploration of
Harnessing Data Science to Improve Population Health and Public Surveillance
@ the ISDS 2019 Annual Conference.

Abstract Submission opens June 15 at http://healthsurveillance.org/2019abstracts

Topics

Abstracts that focus on multiple aspects of **disease surveillance**, including the timely reporting of information on infectious or chronic disease and behavioral health, or injury, to support population health monitoring and response are welcomed. Scientific abstracts that focus on **novel surveillance use cases**, **data sources**, use of **"data science" or machine learning**, methodologies for **event detection**, characterization or alerting, tools for **managing surveillance processes**, **data visualization, communication and reporting, global health security challenges**, use of surveillance information for **strengthening health security,** and **implementation/improvement of surveillance programs at the policy level** are encouraged.

Tracks: Abstracts will be accepted to the following tracks:

- **Methods and Science in Surveillance,**
- **Informatics,**
- **Policy,**
- **Communication, Visualization, and Reporting,**
- **One Health and Beyond,**
- **Public/Population Health Surveillance Practice (and the sub-topics below)**
  - **Chronic and Behavior Health Surveillance,**
  - **Infectious and Communicable Disease Surveillance,**
  - **Injury Surveillance,**
  - **Global Health Surveillance.**

Presentation Types

Presentations are **oral, poster, panel, roundtable, and lightning talks**.

Publication

Abstracts accepted for presentation at the 2019 ISDS Conference will be published in a special supplement of the **Online Journal of Public Health Informatics**.

Key Dates

Abstract Submission Deadline: Extended! October 1, 2018 with Author Notification: November 9, 2018.

Questions?

For questions concerning your abstract submission, contact: **Mark Krumm, Director of Communications:** mkrumm@syndromic.org **|** 617-779-0886

ISDS Conference Tracks

Each submitter will be asked to assign their abstract to one of the following tracks. While the tracks are designed to be distinct, there may be some natural overlap between tracks. Therefore, we encourage submitters to use their best judgment when classifying their submissions.

Methods and Data Science in Health Surveillance

This track is focused on methodological advances in the field of public health surveillance or applied epidemiology. Data may include records of clinical encounters, laboratory test orders or results, pharmacy or other product sales, medical assistance hotline calls, absenteeism data, social media posts, and other evidence modes for care-seeking or reporting behavior.

We seek abstracts describing novel methods for analyzing these various data types or univariate/multivariate statistical alerting within surveillance systems; significant method modifications; evaluations of surveillance systems or their components; classification of data records including syndromes, product groups, text filters, and case definitions; and other technical endeavors.

Abstracts in this category may describe methods used in practice, still under development, or which have been tested only in a research setting. Examples include, but are not limited to, the following:

- Evaluation of a surveillance system used for monitoring the health of a jurisdiction

- New or improved syndrome definitions for use within a surveillance system

- Advanced techniques, components or methods for improving surveillance

- Novel surveillance systems developed or deployed in the field.

- Disease Forecasting and Predictive Modeling

- Applying data science techniques to public health surveillance and practice

- Integrating data science methods and statistical methodology to improve public health outcomes

Informatics

Informatics studies and pursues the effective uses of data, information, and knowledge for scientific inquiry, problem solving and decision-making. We invite abstracts that focus on one or more of the following:

- Use of Big Data approaches to surveillance, including systems to analyze social media data or electronic health records

- Visualization of data or information streams to support surveillance activities and decision-making

- Machine learning approaches to detect disease cases to enhance reporting or analysis of surveillance data

- Linking disparate and/or unstructured data (or information) across a variety of sources

- Monitoring or improving the quality of data (or information) captured by surveillance systems

- Data standards, specifications and formats to support disease surveillance

- Improvements to predication, forecasting and visualization methodology for public health surveillance.

Communication, Visualization, and Reporting

This track focuses on the application of communication practices that can be used to inform disease surveillance communication efforts. Abstracts in this category can focus on written, oral, or visual strategies used for expert or non-expert audiences. Possible topics include:

- Crisis and risk communication to the public, media, or clinical audiences
- Visualization strategies and the ways that design choices may influence an audience
- Actionable behavioral recommendations for the public or calls to action for decision-makers
- Analysis of audience sentiment via social media channels
- How different audiences influence visualization and communication strategies

Policy

Policy at local, state, federal, international levels all play a role in surveillance. We encourage abstracts on lessons learned from the implementation of policies; governance of surveillance data collection, management or usage; or approaches for using surveillance systems and data to inform health and/or public health policy. Examples include but are not limited to the following:

- Financial aspects to enable programs to support data collection or surveillance capacity building
- Reporting requirements for health care providers or facility types
- Use of surveillance data to inform policies regarding health facility planning, nutrition programs, transportation, built environment, etc.
- Governance of multi-state or regional data sharing to facilitate surveillance.

One Health and Beyond

Cooperation and collaboration in surveillance, outbreak investigations and disease control are an essential part of a One Health approach. Traditionally this has focused on the intersection of human, animal and eco system health but can be expanded to include how broader policies and practices affect health across species and environments.

Abstracts should focus on topics that are multidisciplinary and include combinations of topics such as public health surveillance and response, vertebrate ecology, vector/rodent surveillance and control, climate and environmental science, veterinarian medicine, urban planning, housing policies, agricultural practices.

Examples include, but are not limited to:

- Using data science and other analytic methods to integrate multi-disciplinary surveillance data (e.g. vector, animal disease, human disease and climate) to inform public health action
- Describing best practices and case studies of collaboration across disciplines in disease surveillance, control and response
- Developing policies and practices that foster sustainable communication, knowledge and response across agencies
- Providing examples and outcomes of non-traditional partnerships in public health surveillance
- Tracking how climate change and the expanding geographic range of vectors expose new populations to disease risk

Public/Population Health Surveillance Practice, Including Sub-Tracks (see below)

This track is focused on lessons and outcomes associated with day-to-day practice of surveillance, outbreak investigation, management, and response. Abstracts in this track can describe projects, collaborations, methods, techniques, processes, and systems that support and/or advance daily surveillance operations within and across health agencies. Examples of topics for abstracts may include but are not limited to the following:

- Streamlining work processes for epidemiologists or disease investigators
- Results of an outbreak investigation within a jurisdiction
- Comparison of different tools or methods for adoption by a health department
- Lessons learned from the adoption of novel tools or methods by a health department
- Specification of surveillance targets for newly emerging or reemerging diseases
- Regional or national collaborations designed to support surveillance across jurisdictions
- Efforts to coordinate preparedness for or response to an outbreak with multiple governmental agencies and/or non-governmental organizations.
- Evaluating public health interventions and linking outcomes to practice

Sub-tracks within Public/Population Health Surveillance Practice

Infectious / Communicable Disease and Injury Surveillance

This track focuses on lessons and outcomes associated with routine surveillance, outbreak investigation, management, and response related to communicable and infectious diseases as well as injury. Abstracts in this track can describe findings, projects, collaborations, methods, techniques, processes, and systems that support and/or advance daily and outbreak surveillance operations within and across health agencies. Examples of topics for abstracts may include but are not limited to the following:

- Creating situational awareness of routine or emerging infectious/communicable diseases to describe populations affected, preventions steps followed, interventions initiated
- Using data science and other analytic methods to integrate multi-disciplinary surveillance data (e.g. vector, animal disease, human disease and climate) to inform public health action
- Describing best practices and case studies of collaboration across disciplines (public health, laboratory, clinical, academic) in disease surveillance, control and response
- Developing policies and practices that foster sustainable communication, knowledge and response across agencies
- Providing examples and outcomes of non-traditional partnerships in public health surveillance
- Tracking how climate change and the expanding geographic range of vectors expose new populations to disease risk
- Opioid and substance abuse reporting and surveillance
- Motor vehicle Injuries (with a particular interest in the intersection with mobile device utilization)
- Falls and weather related morbidity and mortality
- Firearms related morbidity and mortality surveillance and reporting

Chronic and Behavioral Health Surveillance

This track will focus on applied epidemiology and surveillance of chronic diseases and mental health conditions.. Applications of novel methods for analyzing and monitoring large multidimensional data sources with either chronic or mental health outcomes, or multiple chronic conditions (MCCs) are encouraged to be submitted for consideration in this tract.

Abstracts in this category may describe new or existing systems or methodologies used to monitor trends or examine multivariate associations between a range of behavioral risk factors, protective factors, and geographic variation in chronic and mental health outcomes or MCCs. Examples include, but are not limited to, the following:

- Assessment of predictors of mental health outcomes or MCCs using large administrative data sources
- Examination of clustering of MCCs and risks factors associated with these clusters using multiple sources of data
- Small area estimates of the prevalence of mental health or MCCs
- Using census tract information to examine the relationship between social determinants of health and mental health outcomes or MCCs from large administrative data sources
- Forecasting / Predictive modeling

Global Health Surveillance

This track is focused on public health surveillance or applied epidemiology as applied to topics of global health. This track also seeks surveillance work driving global health security and achievement of health related sustainable development goal. Examples include, but are not limited to, the following:

- Surveillance systems contributing to Global Health Security agenda
- Surveillance and information systems for achieving health related SDG3 – i.e. in maternal and child health; non-communicable diseases etc.
- Examples of use of information and surveillance systems driving health equity or achievement of Universal Health Coverage
- Antimicrobial surveillance
- Surveillance for Neglected Tropical Diseases
- Working in environs with limited infrastructure resources
- Working in regions under political unrest
- Leveraging NGO partnerships
- Addressing Patient privacy during response activities
- Developing a participatory surveillance network

Presentation Types

Oral

Oral presentations will be allotted 12 minutes, followed by 3 minutes for questions. Oral presentations are the preferred format for presenting results from an evaluation of a surveillance system, method, or approach, or evidence of change following the introduction of a surveillance practice.

Poster

Posters are the preferred format for presenting preliminary research and results of small-scale studies, describing experimental projects/programs or works-in-progress, and reporting system descriptions.

Panel

Panel presentations are the preferred format for deeper discussions of an issue or question. Panels should focus on a central topic with 3-4 speakers offering unique but complementary views on a given topic. Each panelist should speak for no more than 10-12 minutes allowing time for questions and discussion with the audience. Time allotted is 45 minutes to one hour.

Roundtable

The goal of a roundtable is to encourage discussion rather than be a presentation/didactic session. The leader should be a knowledgeable and engaging person who can help stimulate a lively discussion.

Lightning Talks

Lightning Talk sessions are designed to facilitate the rapid sharing of recent research, theory, publications, works-in-progress, projects, applications, or experiences pertaining to any aspect of the science or practice of surveillance. Each speaker has just five minutes for their talk and must prepare pre-timed slides that cannot be advanced by the speaker. There will be no planned time for questions at these sessions. (Please note that final slides with your timing built in must be emailed to ISDS prior to the conference. Full details will be provided to Lightning presenters.)

Scientific Program Committee Leadership

ISDS relies on a team of approximately twenty thought-leaders from diverse fields that contribute to the advancement of health surveillance. The Scientific Program Committee is led this year by Peter Hicks.

Peter Hicks, MA, MPH is an Epidemiologist and Informatician at the Centers of Disease Control and Prevention (CDC) within CSELS and was the Project Officer for the MarketScan activity at CDC from 2009-2016.

Mr. Hicks has been working in biosurveillance for over 20 years, beginning his career working on the Department of Defense's ENCOMPASS project, which was one of the first national electronic surveillance systems to leverage Electronic Medical Record data to monitor population health and adverse events of public health significance.

Peter has been with CDC for 15 years and was the surveillance coordinator for CDC during the 2009/2010 H1N1 Influenza Response as well as the agency's response to the 2010 Deepwater Horizon Oil spill. From 2014-2016, he was the co-Chair of the CDC ICD-9/10 Transition Workgroup. He has been the co-Chair of the Informatics Track for the International Society for Disease Surveillance (ISDS) Annual Conference (2014-2018) and active member within the society. He is one of CDC's representatives to HL7 and the agency's lead for the "Implementation and Messaging Guide for Syndromic Surveillance".

The Board and Staff of ISDS express our appreciation to Mr. Hicks and all the dedicated members of this year's SPC.