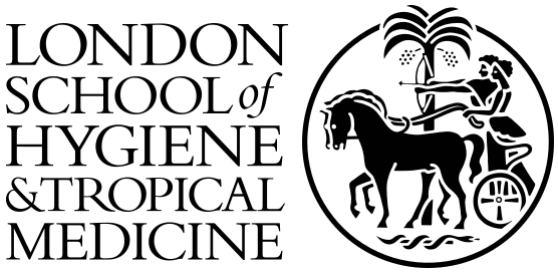

**GeoSentinel Publications 1999-2018**

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Highlights

GeoSentinel is a global surveillance network now consisting of 70 travel and tropical medicine centres situated in 31 countries across 6 continents, sites of which report traveler-level surveillance data to a centralized database at the US Centers for Disease Control and Prevention. Given the substantial efforts towards tracking, defining, and analyzing infectious diseases trends amongst travellers and migrants over the past two decades, it is timely to highlight the publications stemming from GeoSentinel sentinel surveillance.

TEXT

A recent comprehensive literature review highlighted that between 6-87% of travellers become ill during or as a result of their travel.[1] In this issue of the Journal of Travel Medicine, the value of sentinel surveillance in international travelers to identify and describe rare medical problems such as mycoses was highlighted.[2] In the time period from 1997 through 2017, 61 cases of mycoses were identified out of more than 60,000 included case records reported to GeoSentinel. GeoSentinel is a global surveillance network now consisting of 70 travel and tropical medicine centres situated in 31 countries across 6 continents. Although sentinel surveillance in individual travel medicine clinics is helpful[3], rare diseases such as mycoses, or emerging, and other novel epidemiological features of infectious diseases in travelers can only be studied through a global surveillance system of returning travelers such as GeoSentinel.

GeoSentinel was founded in 1995 by the International Society of Travel Medicine (ISTM), and is supported by ISTM, the US Centers for Disease Control and Prevention, and the Public Health Agency of Canada. GeoSentinel is based on the concept that travel medicine providers who encounter returning travelers are ideally situated to detect geographic and temporal trends in morbidity among travelers, and that by reporting such data centrally, such trends will be detected with greater frequency and expedience. Much of our knowledge on health problems and infections encountered by international travelers has evolved as a result of such sentinel surveillance.[4]

As travelers serve as a vehicle for the spread of diseases,[5] the initial intent of GeoSentinel as a provider-based sentinel network was to track emerging infections at their point of entry, for example, influenza,[6] or to identify outbreaks that may otherwise have gone unnoticed such as the outbreak of leptospirosis in a sporting event that involved many international visitors.[7] The scope has broadened over time to monitor global trends in disease occurrence among travelers;[8] to determine travel destinations with the highest risk exposure;[9] to ascertain risk factors and morbidity in groups of travelers categorized by travel purpose and type of traveler;[10] and to describe specific diseases,[11] including those that are of extreme public health importance.[12,13] GeoSentinel is now a worldwide communication and data collection network for the surveillance of travel related morbidity, the largest of its kind. Limitations of the network include the absence of denominator data precluding the estimation of relative risk of specific travel-acquired illnesses; regional variation in the availability and application of microbiological diagnostics and therapeutics; lack of full clinical linkage of records, which limits the scope of data collected to basic demographic and travel data; localization of sites to predominantly ambulatory referral-based centers staffed by specialists in travel and tropical medicine, which translates to under-representation in the network of pediatric and hospitalized cases, as well as mild self-limited illnesses or those with either very short (e.g., influenza) or very long (e.g., hepatitis B) incubation periods.

**CanTravNet** is also an initiative of the International Society of Travel Medicine (ISTM), in collaboration with the Public Health Agency of Canada (PHAC), founded in 2012. All core sites are members of the GeoSentinel Global Surveillance Network.

**EuroTravNet** was first funded by the European Centre for Disease Prevention and Control (ECDC). It was funded by ECDC from 2008-2012, and the ISTM. EuroTravNet is now funded by the ISTM and the Institutes Hospitalo-Universitaire (IHU) Méditerranée Infection Foundation in Marseille. The EuroTravNet founding core sites and members all belong to the GeoSentinel Global Surveillance Network.

Given the substantial efforts towards tracking, defining, and analyzing infectious diseases trends amongst travellers and migrants over the past two decades, it is timely to highlight the publications stemming from GeoSentinel sentinel surveillance. Table 1 summarizes the 97 peer-reviewed publications arising from network-wide (global) analyses of GeoSentinel data, as well as publications arising from the two regional networks of GeoSentinel, EuroTravNet and CanTravNet, from 1999 to 2018. Such knowledge products are a testament to the wide scope of GeoSentinel activities; the global collaborative nature of its leaders; the breadth of the research ranging from high-level epidemiology of illness in travelers to specific travel-acquired diseases such as dengue and malaria; and its impact. Given the true globalization of infectious diseases and high degree of mobility amongst the traveling population, vigilance against threats to local, national, and global public health by continued sentinel surveillance for new and emerging infectious diseases as well as occupation by existing pathogens of novel epidemiologic niches, is imperative.

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