A changing world: global mobility

"International tourist arrivals grew by 4.3% in 2014 to 1.133 billion." (UNWTO)
ISTM Foundation Travelers’ Diarrhea Summit and Practice Guidelines
Revisiting the Role of Antimicrobial Agents in Prevention and Treatment of Travelers’ Diarrhea

Purpose
Preventing and treating travelers’ diarrhea during and after a journey continues to be an important clinical challenge. Emerging research has further highlighted the acute and chronic health consequences of travelers’ diarrhea. Particularly potential adverse consequences such as antibiotic resistance associated with self-treatment abroad and therapy back home need to be considered. Furthermore, advances in technology of diagnostics, the microbiome, and novel therapeutics have brought new questions and opportunities to the field.

The ISTM Foundation sponsored a global summit on Travelers’ Diarrhea which was held in Atlanta in April 2016. The summit brought together experts from around the world and across multiple clinical and research domains to develop expert consensus guidelines around the management of travelers’ diarrhea in light of recent emerging literature. The summit also served to identify critical research gaps.

Key Clinical Questions Addressed
1. Should antibiotic prophylaxis be considered for some travelers, and if so, what traveler characteristics should prompt consideration of prophylaxis and with what agents?
2. What diagnostic modalities should be employed in travelers with diarrhea and/or persistent abdominal symptoms?
3. Given growing recognition of multi-drug resistant colonization in returning travelers, how should travelers be directed with respect to 1) expectant management, 2) non-prescription symptom management, 3) antibiotic use, or 4) seeking care including the carrying of medications in their travel kit?
4. How can providers clearly and effectively convey the risk and benefits of TD treatment in the context of multi-drug resistant (MDR) travelers’ diarrhea, acute and chronic consequences, and community risks in counseling on antibiotic use while traveling?
5. How does our knowledge (and manipulation) of the microbiome in the setting of travelers’ diarrhea inform practice recommendations or future research?

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Outcomes
New definitions for the severity of travelers’ diarrhea were identified. A total of 20 graded recommendations on the topics of prophylaxis, diagnosis, therapy and follow-up were developed, and three non-graded consensus-based statements were adopted. These definitions and recommendations have been distributed to the global travel medicine community through a special Journal of Travel Medicine supplement devoted to communicating new practice guidelines for the prevention and treatment of travelers’ diarrhea and will be disseminated more widely through collaboration with other professional societies and stakeholders in the field.

Research Awards
The ISTM Foundation granted five research awards during its Fiscal Year 2015-2016 for a total of USD 82,000. The funding of these awards was provided by the ISTM Society, and the awards were reviewed and granted through a rigorous peer review process.

Inhaled budesonide for altitude illness prevention. Dr. Christopher Davis, United States of America, Principal Investigator.
Amount awarded USD 23,650.

Association of dengue serotype-genotype and disease severity in foreign travellers admitted at Kasih Ibu hospital, Bali, Indonesia. Dr. Dewa Ayu Sri Masyeni, Indonesia, Principal Investigator.
Amount awarded USD 20,000.

Persistence of neutralizing antibodies after immunization against yellow fever (YF) in HIV-infected patients. Dr. Charlotte Martin, Belgium, Principal Investigator.
Amount awarded USD 17,400.

Persistence of zika virus in Semen after acute symptomatic infection: a european clinical and laboratory observational prospective cohort study. Dr. Denis Malvy, France.
Amount awarded USD 12,000.

Differential vaccination requirements of newly arrived Eritrean asylum seekers – an informative sample analysis. Dr. Cornelia Stoehein, Switzerland, Principal Investigator.
Amount awarded USD 8,950.

ISTM Research Committee Leadership
Martin Grobusch, The Netherlands, Chair
Elizabeth Barnett, United States of America, Vice-Chair

“More than 2.5 billion people in over 100 countries are at risk of contracting Dengue.” (WHO)

“Rabies is a vaccine-preventable viral disease which occurs in more than 150 countries and territories. Infection causes tens of thousands of deaths every year. Forty percent of people who are bitten by suspect rabid animals are children under 15 years of age.” (WHO)
One of the most critical programs of the ISTM is the GeoSentinel Surveillance Network. The ISTM Foundation has prioritized increasing the funding for this very important project and will focus much of its outreach to secure additional financial support. GeoSentinel was created in 1995 as a joint project between the International Society of Travel Medicine (ISTM) and the U.S. Centers for Disease Control and Prevention (CDC).

Living in a ‘global village’, emerging infections can spread rapidly via travelers. GeoSentinel provides early identification of outbreaks using travelers and immigrants as sentinels of infection, as shown over the last two decades.

- Exotic bacterial and parasitic infections in Ecochallenge participants in Borneo (2000) and on Tiongan Island, Malaysia (2010)
- Sleeping sickness in Zambia and Zimbabwe (2010 and 2015)
- Dengue fever in Angola (2013)
- Zika in Costa Rica, Viet Nam, Maldives, and East Timor (2016)

GeoSentinel identified these problems, in most cases, before national health authorities knew that they had a local outbreak.

GeoSentinel Leadership Team
Davidson Hamer, USA, Principal Investigator
Elizabeth Barnett, USA, Co-Investigator
Karin Leder, Australia, Co-Investigator
Marc Mendelson, South Africa, Co-Investigator
Patricia Schlagenhauf, Switzerland, Co-Investigator

International Society of Travel Medicine Foundation, Inc.
Statement of Financial Position in USD*
30 June 2016

Changes in Unrestricted Net Assets
Revenues, Gains, and Other Supports
Grant Revenue
131,500
In-Kind Project Revenue
120,000
In-Kind Support Revenue for Management and General Operations
25,835
Donations
35,990
Total Revenue, Gains and Other Supports
313,325
Expenses
Program Activities Direct Expense
283,139
Management and General
28,350
(Note 25,835 was In-Kind Support for Operations)
Total Expenses
311,489
Change in Net Assets
1,836
Net Assets at Beginning of Year
2,500
Net Assets at End of Year
4,336
*From auditor's FY 2015-2016 report.

With the recognition of growing problems related to emerging infectious diseases, global health security has become an important agenda item for many countries, such as the Zika virus. New microbes, drug resistance, the potential for accidental or purposeful release of hazardous biologics, and the globalization of travel and trade continue to be serious challenges.

Surveillance of Travelers: Impact of GeoSentinel

During FY 2015-2016, the Foundation revenue equaled USD 313,325 including both in-kind support and donations including support from the ISTM Society. More than USD 283,000 was spent supporting Research Grants (more information on page 5 of this report), and the Travelers’ Diarrhea summit and resulting practice guidelines (more information on page 4 of this report).

The ISTM Foundation is committed to continue this trend in spending very little on operating costs and to focus the majority of its spending on programs.
Future Directions

Human migration is now at an all-time high, accounting for 240 million persons and is shaping world events and fueling political and public debates. People have been migrating since the beginning of human history to escape natural catastrophes, wars and suffering. As a result, migrant populations are heterogeneous and are facing a broad range of health needs. Migrant medicine is a rapidly developing discipline to address the complexity of such needs.

The ISTM is planning an international forum in October of 2018 to discuss scientific evidence on migration-related issues, with a specific focus on the health aspects affecting migrant populations and host communities. This forum will bring together public officials, policy makers, clinicians and others who care for migrants and their introduction into their host communities.

The ISTM is also planning to expand its research grants with a focus on migration, and the ISTM GeoSentinel Surveillance Network has established a new data collection process that includes a focus on migrants and refugees.

GeoSentinel has been steadily expanding its reach during the last three years with the addition of strategically placed sites in Southeast Asia, sub-Saharan Africa, Eastern and Western Europe, and North America. In addition, GeoSentinel is conducting a study of the long term impact of mosquito-borne diseases (Zika, chikungunya, and dengue) on the physical and psychosocial status of infected travellers and is planning an important study that aims to identify new pathogens responsible for febrile illness in travellers. This will provide important insight into new and emerging causes of illness in travellers that also pose a potential global health risk if introduced into their home country.

“There are an estimated 1 billion migrants in the world today of whom 250 million are international migrants and 763 million internal migrants – one in seven of the world’s population. 65 million of the world’s internal and international migrants are forcibly displaced today. This rapid increase of population movement has important public health implications, and therefore requires an adequate response from the health sector.” (WHO)

“The year 2015 saw the highest levels of forced displacement globally recorded since World War II, with a dramatic increase in the number of refugees, asylum-seekers and internally displaced people across various regions of the world – from Africa to the Middle East and South Asia. The world hosted 15.1 million refugees by mid-2015. This is a 45% increase compared to three and a half years ago, largely due to continued conflict in the Syrian Arab Republic, now well into its 5th year. Some 8.6 million persons were newly displaced in 2015 alone.” (IOM)