

Risks of getting HIV infections and STIs when traveling to Latin America

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Sexually transmitted infections (STIs) including HIV infection are responsible for a variety of acute and chronic medical problems. Travel may interfere with human sexual practices by splitting fixed sexual partnerships and removing social taboos. Increased sexual promiscuity and casual sexual relationships are likely to occur during travel because people have the opportunity to escape from standard behaviors.

In Latin-American countries (LAC) the prevalence of STIs is extremely high. Syphilis has a variable prevalence rate among sex workers in LAC, ranging from 7% in Panama to 29% in Santos, Brazil. The same applies for gonococcal infections and other STIs. Resistance rates of *Neisseria gonorrhoeae* to different antibiotics vary according to different countries. Regarding chronic hepatitis B, seroprevalence for different LAC varies between high-endemicity regions like the Amazon basin, and low and intermediate areas like Argentina and South Brazil, respectively, determining different risks of exposure to travelers. There are no vaccines for STIs, with the exception of those for HBV. It is estimated that in the Latin American area there are 2 million people living with HIV and AIDS. Brazil accounts for more than 40% of total infections. In some Brazilian cities, more than 60% of drug users are HIV positive. The most severe epidemics are found in smaller countries such as Belize, Guyana and Suriname, with HIV prevalence rates of 2.1%, 2.5% and 2.4% respectively. The majority of countries in the region have prevalence rates of less than 1%, but the prevalence among specific groups, such as men who have sex with men and sex workers, is often very high. Primary resistance rates of HIV vary according to the visited area.

Screening of asymptomatic travelers who had casual sex abroad should be encouraged.

doi:[10.1016/j.ijid.2010.02.1868](https://doi.org/10.1016/j.ijid.2010.02.1868)**Neglected tropical diseases: Present need and present action (Invited Presentation)**

39.001

The WHO global plan to map and combat neglected tropical diseases

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doi:[10.1016/j.ijid.2010.02.1869](https://doi.org/10.1016/j.ijid.2010.02.1869)**Neglected tropical diseases in Latin America and the Caribbean: Prospects for Control and Elimination**

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In Latin America and the Caribbean, 180 million people live in poverty, and carry most of the burden of neglected tropical diseases (NTDs) like soil-transmitted helminthiasis, schistosomiasis, Chagas disease, lymphatic filariasis, onchocerciasis, leishmaniasis, trachoma, rabies, and other infections of poverty like neonatal tetanus and congenital syphilis.

These neglected diseases are often restricted to the rural and urban poor and vulnerable and excluded groups like women and children, and indigenous communities. They adversely affect school attendance, children's physical and cognitive development, pregnancy outcome, labor productivity, and/or income-earning capacity, and create social stigma.

A comprehensive integrated approach with access to diagnostic and treatment tools and an agenda to address their social determinants. Political commitment from multiple sectors is needed to ensure resource availability and international support. To facilitate development of this commitment, the Pan American Health Organization (PAHO)/WHO with its partners have recently taken several major actions. Ten neglected diseases have been mapped by PAHO in 14 countries for "hot spots". PAHO partnered with the Inter-American Development Bank and the Global Network for Neglected Tropical Diseases to develop a new Regional Fund for control and elimination of NTDs and other infectious diseases of poverty. PAHO's Directing Council passed Resolution CD49.R19 (2009) in which Member States committed by 2015 to eliminate or reduce those neglected diseases for which adequate tools and strategies exist, to levels in which they are no longer public health problems.

PAHO and partners will complete mapping of the distribution and overlap of neglected diseases in the Region; develop evidence-based guidelines and demonstration projects for integrated control; develop models to address social determinants; strengthen, scale up and intensify existing programs of control and elimination through technical cooperation; and plan for certification of elimination of diseases like onchocerciasis and lymphatic filariasis which are close to elimination in the Region.

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Chagas disease research: Advances and needs

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American trypanosomiasis – a zoonotic disease caused by *Trypanosoma cruzi* (Protozoa, Kinetoplastida) – is transmitted to humans by blood-sucking triatomine bugs, blood transfusion and congenital transmission. Successful regional vector control programs based on the residual application of insecticide and improved screening of blood donors have

achieved important reductions in the incidence of Chagas disease in many Latin American countries. However, this approach has been ineffective in some geographic areas such as the Gran Chaco. As a result, the development of effective new tools in these areas to prevent house reinfection by triatomine bugs is a high research priority. No less important is the need of innovative approaches including those generated from genomics to improve upon existing diagnostic tests and to develop new parasitological tests for the early diagnosis of congenital infection in the newborn and in immunocompromised patients, as well as for the assessment of treatment response (PCR; antigenemia, recombinant antigens, synthetic peptides etc.). There is also a pressing need of developing new anti-*T. cruzi* agents with high activity in both the acute and chronic phases, and epidemiological methods that may be used to estimate the prevalence of infection, subclinical disease and treatment needs in endemic and non-endemic countries.

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Integrated control of neglected tropical diseases in Africa

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Neglected tropical diseases (NTD) are the 'other diseases' of Millennium Development Goal 6 that have received little attention from policy-makers and politicians who over focus on HIV, tuberculosis and malaria. They include many medically diverse diseases that are strongly associated with poverty. NTDs include bacterial, viral, protozoan and helminth infections that have plagued humanity since antiquity. Globally, over one billion people suffer from one or more NTDs and about 500,000 people die from them every year.

Neglected Tropical Diseases are widespread in Africa due, in part, to the low socio-economic status of rural populations. Many countries are endemic with 5 or more NTDs including schistosomiasis, soil-transmitted helminths (STH), lymphatic filariasis, onchocerciasis and trachoma, as well as zoonotic disease such as human African trypanosomiasis, rabies, tick borne relapsing fevers, echinococcus (hydatid), taeniosis (cysticercosis), brucellosis and plague, with a large part of the population at risk of co-infection with 2 or more of these diseases.

Fortunately, control strategies as well as diagnostic tools and the availability of safe and effective drugs exist for the NTDs responsible for the greatest burden in Africa: lymphatic filariasis, onchocerciasis, STH and schistosomiasis. The World Health Organization has developed a strategy, Preventive Chemotherapy and Transmission Control (PCT), which is geared towards the implementation of large-scale mass drug administration. The objective of PCT is to provide national programmes with technical guidelines that emphasize a coordinated, cost-effective approach to the implementation of national elimination and control activities where preventive chemotherapy is the main tool, i.e. regular anthelmintic drug administration to all people at risk of morbidity due to helminthic diseases, starting early

in life. The availability of rapid diagnostic tools and donations of several drugs from pharmaceutical companies, and the reduced price of other essential antihelminthic drugs has catalysed the rapid expansion of chemotherapy-based control programmes for NTDs. The main challenges to PCT in Africa include poor health service infrastructure in post conflict countries and cost-effective approaches for integrating the individual vertical programmes targeting specific diseases.

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Viral diseases (Oral Presentation)

40.001

Unusual clinical profile of Dengue Infection in patients attending a tertiary care teaching hospital in north India

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Background: Major outbreaks of dengue virus have been reported from many parts of North India including Lucknow, at regular intervals since 1996. We have carried out a detailed investigation of the Dengue cases occurring in year 2008.

Methods: Clinically suspected patients attending Pediatrics and Medicine outpatient or inpatient Departments and referred to Microbiology Department for serological diagnosis of dengue, were prospectively enrolled after obtaining verbal consent. Detailed clinical history and examination findings were recorded in a pre designed questionnaire from 398 such patients between Jan 2008 to Dec 2008. Dengue specific antibodies were detected using commercial MacELISA kit (IVD, USA). Results of hematological and other investigations were noted from medical records.

Results: Mean age of patients' was 10.25 ± 10.9 years and 328/398 were in pediatric age group (%12 yrs age). A total of 53.26% (212/398) patients were positive for dengue IgM and 93% of these were admitted patients. Male: Female ratio was 1.8:1 and ~74% belonged to rural area. Overwhelming majority (92%) of dengue cases were seen between July to November, which are the post monsoon months in this part of world. Frequent clinical features included fever (100%) with mean duration of 14.07 ± 9.2 days, edema (50%), altered sensorium (39%), rash (31.84%). Mucosal bleeding, hepatomegaly and splenomegaly were present in 31.84%, 57.29% and 56.25% respectively. Thrombocytopenia (58.74%) was common laboratory finding. Liver enzymes SGPT and SGOT were raised in 72.55% and 78.43% of positive cases, respectively. Presentation varied between adults and pediatric populations, while among adults, seizure ($p=0.029$), skin rash ($p=0.029$), abdominal pain ($p=0.005$) and hemoglobin concentration ($PCV > 36$; $p=0.063$) were significant findings; however in children, headache ($p=0.029$), serum sodium and calcium levels ($p=0.022$ and $p=.0006$) were significantly raised. Logistic Regression analysis found serum SGOT > 40 U/L and presence of splenomegaly as independent predictors for dengue infection. Only 3 cases met the WHO criteria for dengue haemorrhagic fever (DHF), however clinically ~20% of the dengue positive cases were labelled and