

Infectious Diseases Prevalent in Peru

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Peru is a country with three distinct geographic regions: the Coast bordering the Pacific Ocean, the Highlands comprised of the Andes, and the Jungle covered by the Amazon Rainforest.

Hospital Nacional Cayetano Heredia Lima, Peru

Participated in a 2 week rotation program created by the Public Health department at Universidad Peruana Cayetano Heredia.
 Rotated with Attendings through:

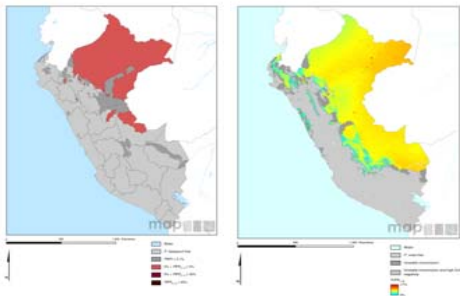
Emergency Department
 Internal medicine
 Infectious Diseases Department

Malaria

Epidemiology in Peru

Two most common types of malaria in Peru:

Plasmodium falciparum
Plasmodium vivax

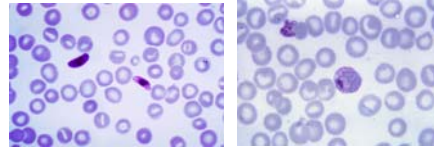


The figures above represent the spatial distribution of *P. falciparum* (left) and *P. vivax* (right) malaria endemicity map in 2010.

Understanding the geography proves useful when determining with what subset of malaria the patient has been infected. *P. falciparum* is limited to the Jungle while *P. vivax* is also found in the Highlands.

Malaria

Diagnosis



Blood smears are taken and used to determine whether the patient has *P. falciparum* (left) or *P. vivax* (right).

Tuberculosis

Epidemiology in Peru

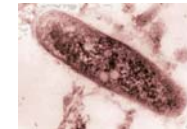
Peru has 15% of the TB cases in the Americas

The DOTS program has effectively improved treatment of TB through a system of diagnosing cases, 6-8 weeks of treatment with anti-TB drugs, and promoting adherence to the treatment regimen.

Tuberculosis

Pathology

Infectious agent: *Mycobacterium tuberculosis*



The bacterium spreads through the lungs, forming hard nodules (tubercles) that break down respiratory tissues and form cavities in the lungs.



Pulmonary TB:

Leishmaniasis

Epidemiology in Peru

Leishmaniasis is a parasitic disease spread through sand fly bites. Two types are commonly found in Peru: *L. peruviana* and *L. braziliensis*

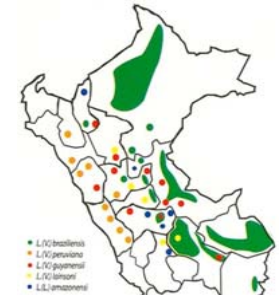


Figura 4. Distribución de las especies de Leishmania en el Perú.

L. Peruviana is found in the highlands and affects children. *L. braziliensis* is found in the jungle and affects the men who work there.

Leishmaniasis

Clinical Presentation

Localized Cutaneous Leishmaniasis: painless, granulomatous lesion with defined edges at the bite site (pictured below)

Mucocutaneous Leishmaniasis: widespread with damage to the nose and mouth.



Conclusions

Infectious diseases abound in Peru, many of which are not often seen in the United States. Among these are Malaria, Tuberculosis, and Leishmaniasis. We are grateful to have observed the clinical presentations and treatments of these illnesses firsthand through our clinical rotations at UPCH.