EXPERT ON INFECTIOUS DISEASES
IN THE GEOGRAPHY COLLOQUIUM

Dr. Mary Ann McDowell

Associate Professor, Department of Biological Sciences
Faculty Member of the Eck Institute for Global Health
University Of Notre Dame
Jefferson Science Fellow, National Academy of Sciences

Will Discuss
Malaria and Leishmaniasis: Geography Matters

Infectious diseases vary by geographic region and population, and change over time. The geographical distribution of disease has changed dramatically over human history. For example, at the beginning of the last century, nearly all of the 200 countries in the world were endemic for malaria. Since that time, global malaria control efforts have resulted in over 100 countries eliminating malaria, with an additional 21 countries positioned to achieve elimination in the near future. Tremendous progress in the fight against malaria has been achieved in the last two decades; however, the momentum appears to have stagnated in recent years. The obstacles to success include operational and political challenges, as well as the complex biology of the malaria parasite, including the constantly evolving resistance of the mosquito vectors and the parasites to currently used insecticides and drugs, human migration, and changing mosquito species distributions.

The Neglected Tropical Disease, leishmaniasis is global, occurring in 98 countries and on 5 continents, but highly complex and exhibiting a fragmented geographical distribution. Approximately 35 different sand fly species transmit at least 40 different Leishmania species to humans: Phlebotomus species transmitting in the Old Word and Lutzomyia species in the Americas. Understanding of the mechanisms of vectorial capacity, adaptation to changing ecological environments, and insecticide resistance has epidemiological consequences for the integrated management of sand fly populations that is the cornerstone of leishmaniasis control.

Friday, October 9th
3:00 - 4:15 PM

Online: https://minnstate.zoom.us/j/99070205470

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