

## MALARIA: Notes about the Disease

Malaria is an ancient mosquito-borne protozoan disease that, worldwide, causes about half a billion cases with one million human deaths every year, mainly in tropical and some sub-tropical countries. Thus, it remains a disease of tremendous public health importance on a global scale.

In North Carolina, as in the other southeastern states, malaria was an endemic problem from colonial times into the late 1940s. Anopheline mosquitoes, the vectors, persist here, but the autochthonous (local) transmission of malaria largely ended after intensification of mosquito control efforts began in the early 1940s; indeed, CDC as a federal agency had its origin in the federal Malaria Control in War Areas (MCWA) program, based in Atlanta, Georgia. However, even after interruption of the human-mosquito-human cycle of the malarial parasite in the US, occasional cases still occur that appear to be autochthonous. NC's last reported autochthonous case occurred in 1959.<sup>1</sup>

Consequently, the cases of malaria occurring in NC now are either in foreign travelers returning here who, for some reason, did not avail themselves of the proper prophylactic antimalarial drug during their travels; natives of foreign countries infected before arrival;<sup>2</sup> or congenital cases occurring in infants born to mothers with infection acquired in a malarious area.<sup>3</sup>

Environmental control of mosquito breeding sites is an important public health measure in the control of all mosquito-borne diseases, as is education of the public in proper methods of preventing unnecessary exposure to mosquitoes. Largely effective—but not innocuous—antimalarial drugs exist for chemoprophylaxis when people venture into areas of the world where malaria exists. Staff of travel clinics should be well versed on the current status of malaria in countries around the world and the choice and proper use of the most appropriate antimalarial drug for a traveler's itinerary. This information is readily available on the CDC website.<sup>4</sup>

1. JR Zucker, "Changing Patterns of Autochthonous Malaria Transmission in the United States: A Review of Recent Outbreaks," *Emerg Infect Dis* 2 (1996): 37-43, [www.cdc.gov/ncidod/eid/vol2no1/zuckerei.htm](http://www.cdc.gov/ncidod/eid/vol2no1/zuckerei.htm).
2. Centers for Disease Control and Prevention. [Malaria in Montagnard Refugees—North Carolina, 1992]. *MMWR* 1993;42(10):[180-3], [www.cdc.gov/mmwr/preview/mmwrhtml/00019873.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/00019873.htm).
3. Centers for Disease Control and Prevention. [Congenital Malaria as a Result of *Plasmodium Malariae*—North Carolina, 2000]. *MMWR* 2002;51(8):[164-5], [www.cdc.gov/mmwr/preview/mmwrhtml/mm5108a2.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5108a2.htm).
4. "Traveler's Health," *Centers for Disease Control and Prevention*, 2007, [www.cdc.gov/travel/](http://www.cdc.gov/travel/).