Lyme disease

Lyme disease is a tick-borne zoonotic disease caused by the spirochete *Borrelia burgdorferi*. The first manifestation in about 60% of patients appears as a red macule or papule (bull’s eye) that expands slowly in an annular manner, sometimes with multiple similar lesions. This distinctive skin lesion is called erythema migrans. The incubation period for Lyme disease ranges from three to 32 days after tick exposure; however, the early stages of the illness may be asymptomatic, and the patient may later develop systemic symptoms and rheumatologic, neurologic or cardiac involvement in varying combinations over a period of months to years.

Currently, increasing recognition of the disease is redefining enzootic areas for *B. burgdorferi*; Lyme disease cases have been reported in 47 states, and in Ontario and British Columbia, Canada. Elsewhere, related borrelioses have been found in Europe, the former Soviet Union, China and Japan.

In 1997–1998, a tick identification and *Borrelia* isolation study was conducted by the CDC and the Oregon Department of Human Services in Deschutes, Josephine and Jackson counties. No ticks from Deschutes County were identified as carrying *Borrelia* in this study. The organism was isolated in 3.5% of *Ixodes pacificus* ticks tested.

During 2008–2009, 31 confirmed cases and 52 presumptive cases were reported in Oregon. The median age was 42 years. Fifty-one (60%) cases were female. Of the cases, 25% were reported in Deschutes, Jackson and Josephine counties.
Lyme disease by year: Oregon, 1988–2009

Lyme disease by onset month: Oregon, 2009
Malaria

Worldwide, malaria is one of the most devastating of the communicable diseases, causing perhaps 1 million to 2 million deaths annually, not to mention an enormous burden of disability and medical costs. While transmission has not been documented in Oregon for decades, malaria is reported every year in our state; all cases have resulted from exposures outside the United States. Competent anopheline mosquitoes are resident in Oregon, so limited local transmission remains a theoretical possibility. Oregon rates are similar to the national average. Oregon surveillance data contribute to the national database, which is used to tailor recommendations for prophylaxis and treatment. In 2008, four cases were reported, three of which were *Plasmodium falciparum* (the most severe of the four human parasite species). In 2009, *Plasmodium vivax* (four cases) was most commonly reported.