

Travel-Associated Conditions in Montana

Background. We live in an increasingly mobile society. Whether for business, vacation, study or missionary work, domestic and international travel has increased dramatically over the last 10 years. U.S. residents made over 60 million international visits in 2012.¹ The Centers for Disease Control and Prevention (CDC) *Health Information for International Travel* (Yellow Book) states that up to 64% of travelers to developing countries report health problems.² A recent study using data collected from disease reports of returning international travelers determined that the most common travel-associated illnesses reported were gastrointestinal infections caused by *Campylobacter*, *Salmonella* and *Shigella*, followed by febrile illnesses such as malaria and dengue fever.³ Nationally, CDC is notified of communicable diseases by the state of patient residence. As a result, each year Montana reports cases of communicable diseases to CDC that are acquired out-of-state or out-of-country. These patients must have documented travel to an area where the condition or disease vector is endemic in order to meet the case definition for disease notification. Many conditions can result from travel-associated activities; this summary focuses on those reported but not likely acquired in Montana.

Disease etiology and trends. During 2008–2012, the number of travel-associated conditions reported in Montana remained low (Table). Dengue and malaria are diseases found in tropical or subtropical regions transmitted by the bite of infected mosquitos. Hepatitis A can be associated with out-of-country travel but can also be acquired in Montana from consumption of contaminated food prepared by ill food handlers. The majority of Hepatitis A cases reported in Montana during this five-year period were associated with out-of-country travel. Coccidioidomycosis is a fungal infection that is endemic to the southwest United States, Mexico, and Central and South America. Cases of coccidioidomycosis reported in Montana are commonly associated with travel to these regions. Persons at risk for coccidioidomycosis include Montana residents who spend the winter months in warmer climates. Legionellosis is commonly associated with travel because the bacterium grows best in stagnant warm water in hot tubs, cooling towers, hot water tanks, and decorative fountains, all of which can be found in hotels or resorts. Persons at risk for legionellosis include those aged >50 years, current or former smokers, or those with immunocompromising or chronic lung conditions. Lyme disease is a bacterial infection transmitted by the bite of an infected tick. Areas endemic for Lyme disease include the northeast and mid-Atlantic states, Wisconsin, Minnesota and California. The tick vectors known to transmit *Borrelia burgdorferi*, the causative agent of Lyme disease, are not known to exist in Montana.

Table. Travel-associated conditions reported in Montana, 2008–2012

Condition	2008	2009	2010	2011	2012
Coccidioidomycosis	4	6	1	5	3
Dengue Fever	1	2	5	0	3
Hepatitis A	1	6	4	3	6
Legionellosis	4	8	5	1	6
Lyme disease	17	3	5	11	10
Malaria	0	5	4	3	0

Recommendations and prevention. Healthcare providers should consider the conditions highlighted in this *Surveillance Snapshot* when Montanans present with symptoms consistent with disease and report travel outside of the state or country. A thorough travel history should be obtained for all patients and is essential in diagnosing and determining the case status of travel-associated conditions. The CDC Yellow Book is a valuable resource for pre-travel consultations, including vaccine recommendations and prophylaxis, and for post-travel visits due to potential travel related illness. Healthcare providers can refer Montanans to travel vaccine clinics at their local health department prior to international travel. Visit [DPHHS Travel Vaccine Information](#) for more information.

¹United States Department of Commerce. U.S. Citizen Travel to International Regions, 2012. Available at: <http://tinet.ita.doc.gov/view/m-2012-O-001/index.html>

²Centers for Disease Control and Prevention. The Yellow Book. Available at: <http://wwwnc.cdc.gov/travel/page/yellowbook-home-2012>

³Leder, K, Torresi, J, Libman MD, et. al. GeoSentinel Surveillance of Illness in Returned Travelers, 2007–2011. *Ann Intern Med.* 2013;158(6):456–468. Available at: <http://annals.org/article.aspx?articleid=1667267>