

# AMEBLIASIS IN NEVADA, 2005-2014

January 2016  
Edition 1.0

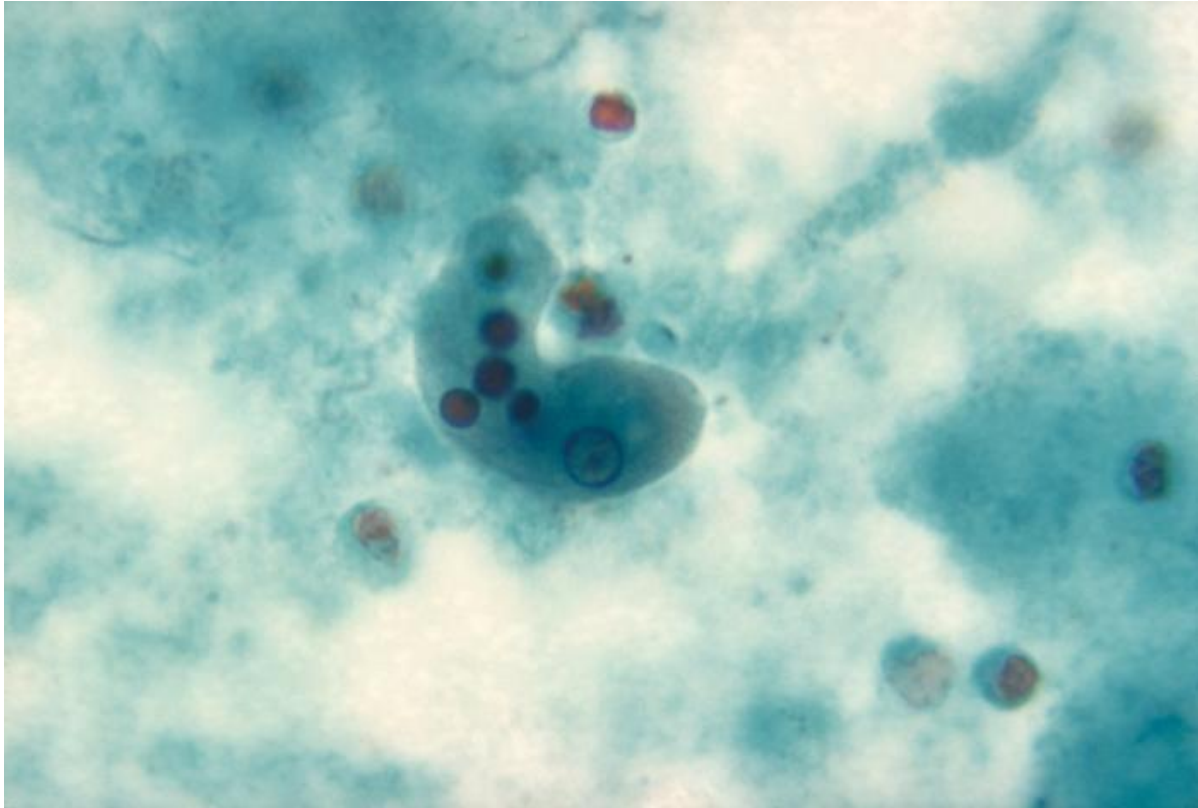


Photo: [Centers for Disease Control and Prevention](#)/ Dr. N.J. Wheeler, Jr.



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## Purpose

The purpose of this report is to provide a general overview of the incidence and recent trends of amebiasis among Nevada residents. The report also includes Nevada data collected from cases of amebiasis from 2005 to 2014. Amebiasis is listed as one of Nevada's reportable diseases pursuant to [NRS 441A](#) (1). Amebiasis reporting is further regulated by [NAC 441A.455](#) (2).

## Amebiasis

Amebiasis is a disease caused by the parasite *Entamoeba histolytica* (*E histolytica*). Amebiasis is typically found in tropical areas with poor sanitary conditions; Africa, Mexico, parts of South America, and India have significant health problems associated with amebiasis. In the United States, amebiasis is most commonly found in people who have traveled to tropical places with poor sanitary conditions, in immigrants from tropical countries with poor sanitary conditions, in people who live in institutions with poor sanitary conditions, and in men who have sex with men (3, 4).

*E histolytica* is spread through fecal-to-oral transmission, typically through food or water contaminated with stool. Individuals can become infected with *E histolytica* when putting anything in their mouth that has touched the feces of an infected person, swallowing something that is contaminated with *E histolytica*, or swallowing *E histolytica* cysts (eggs) picked up from contaminated surfaces or fingers. Most people who are infected with *E histolytica* do not have any symptoms; only 10 to 20 percent of those infected show symptoms. Symptoms occur 7 to 28 days after being exposed to the parasite. Patients with mild symptoms may exhibit diarrhea, stomach pain and cramping, fatigue, excessive gas, and rectal pain during a bowel movement. Patients with severe symptoms may exhibit bloody stools, fever, vomiting, and abdominal tenderness. Rarely, infection may spread to the liver and form an abscess, or a collection of pus (3, 4).

If *E histolytica* infection is suspected, fecal samples are collected for laboratory testing. However, diagnosis of amebiasis can be difficult, because other parasites look similar to *E histolytica* (3). If diagnosed, amebiasis is typically treated with antibiotics and the prognosis is usually good. Illness usually lasts two weeks but can return if treatment is not given (4).

To reduce the spread of infection, individuals with amebiasis should practice good personal hygiene, such as washing hands after using the toilet and before handling food. To reduce the chance of becoming infected when travelling to a tropical area with poor sanitation, individuals should not drink untreated water, fountain drinks, or drinks with ice cubes. Travelers should also avoid consuming uncooked vegetables, unpeeled fruit, and unpasteurized dairy products. Bottled water, tap water that has been boiled for at least one minute, and beverages from sealed cans or bottles are safe to drink (3, 4).

## Summary

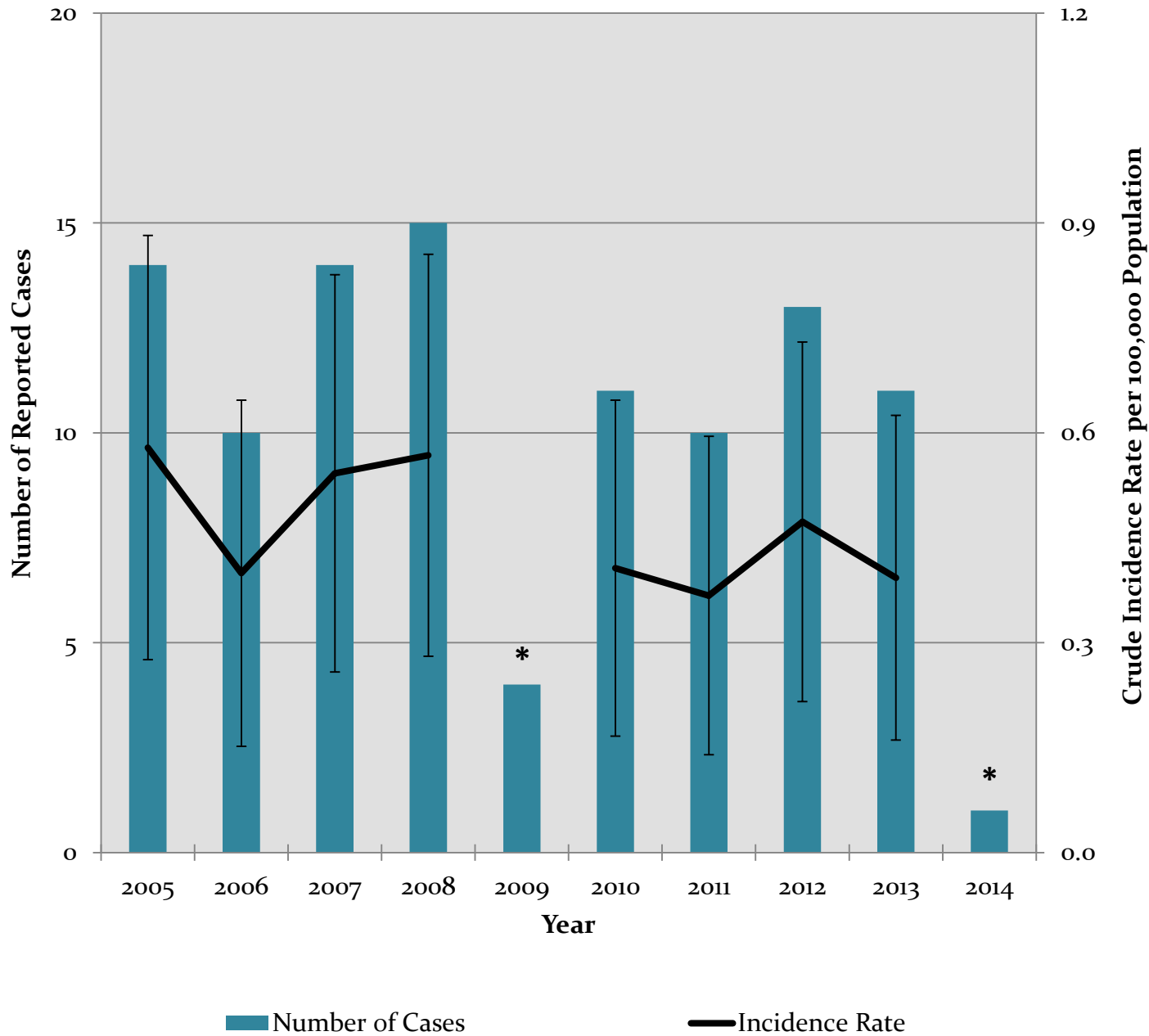
From 2005 to 2014, the annual number of reported amebiasis cases in Nevada ranged from a low of 1 case in 2014 to a high of 15 cases in 2008. Over the ten years, a total of 103 cases were reported. The annual crude incidence of amebiasis ranged from a low of 0.4 cases per 100,000 population in 2006, 2010, 2011, and 2013 to a high of 0.6 cases per 100,000 population in 2005 and 2008, but these differences were not statistically significant; the incidence rate for 2009 was not calculated due to low case counts. The crude incidence rate from 2005 to 2014 was 0.4 cases per 100,000 population. There are no Healthy People 2010 or Healthy People 2020 objectives for amebiasis.

The age-adjusted incidence rates for Southern Nevada Health District, Washoe County Health District, and the overall rate for the state (0.5, 0.3, and 0.4 cases per 100,000 population, respectively) were not significantly different. Rates for Carson City Health and Human Services and the rural and frontier counties were not calculated due to low case counts.

Between 2008 and 2014 (years for which monthly data is available), there was no discernable monthly or seasonal trend for reported amebiasis infections. The number of reported cases ranged between 0 and 4 cases per month, depending on the year.

The 25-39 year old age group had a significantly higher incidence rate (0.7 cases per 100,000 population) compared to the 5-14 year old, 15-24 year old, and 65 and older age groups (0.3, 0.2, and 0.3 cases per 100,000 population, respectively). There were no other significant differences between the age groups. There were no reported cases in infants, and rates for children 1 to 4 years of age were not calculated due to low case counts.

# Figure 1. Number of Reported Cases and Crude Incidence Rates of Amebiasis in Nevada: 2005-2014

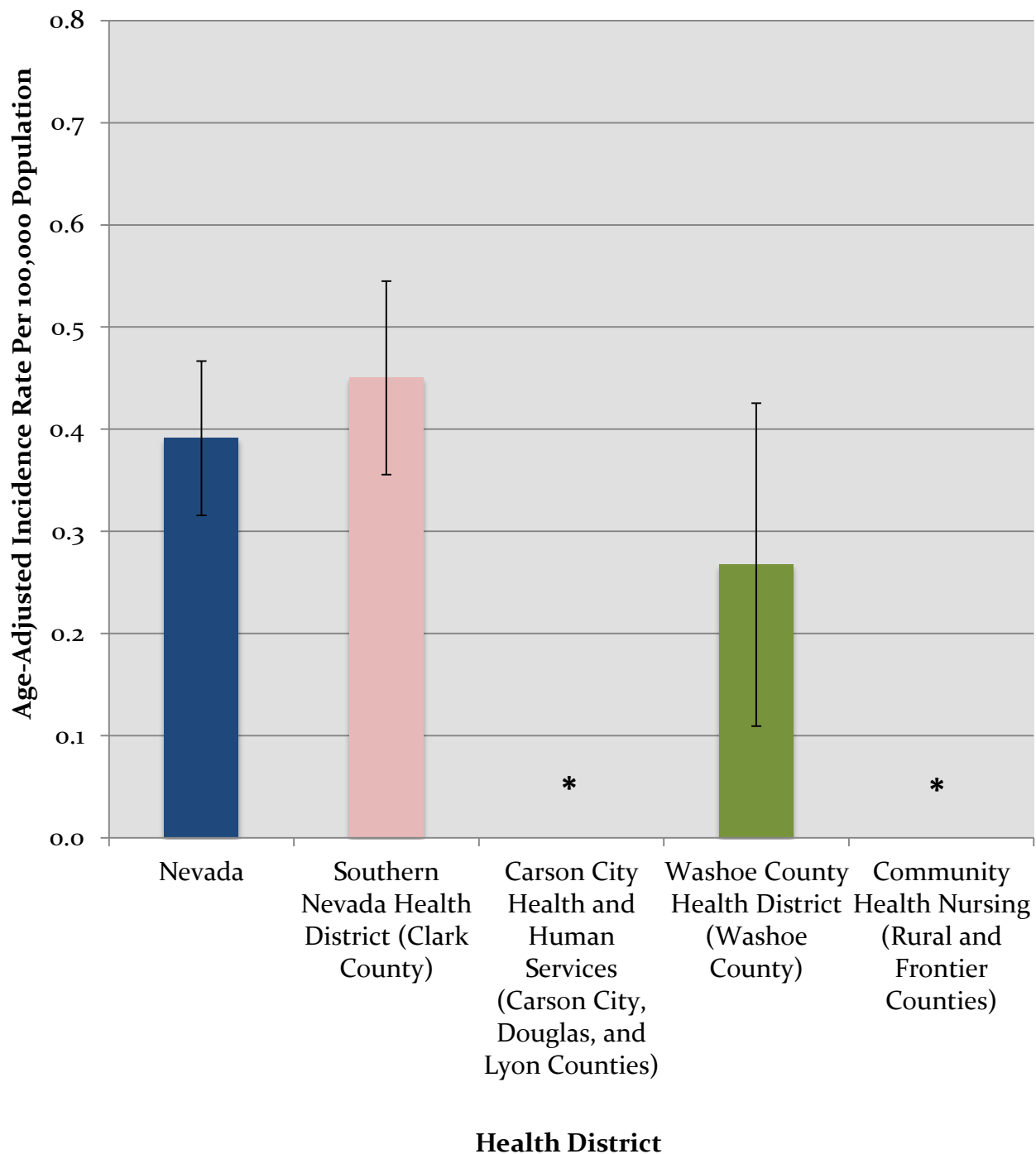


\* Incidence rate not presented due to low case counts.

Error bars represent 95% confidence intervals for incidence rates

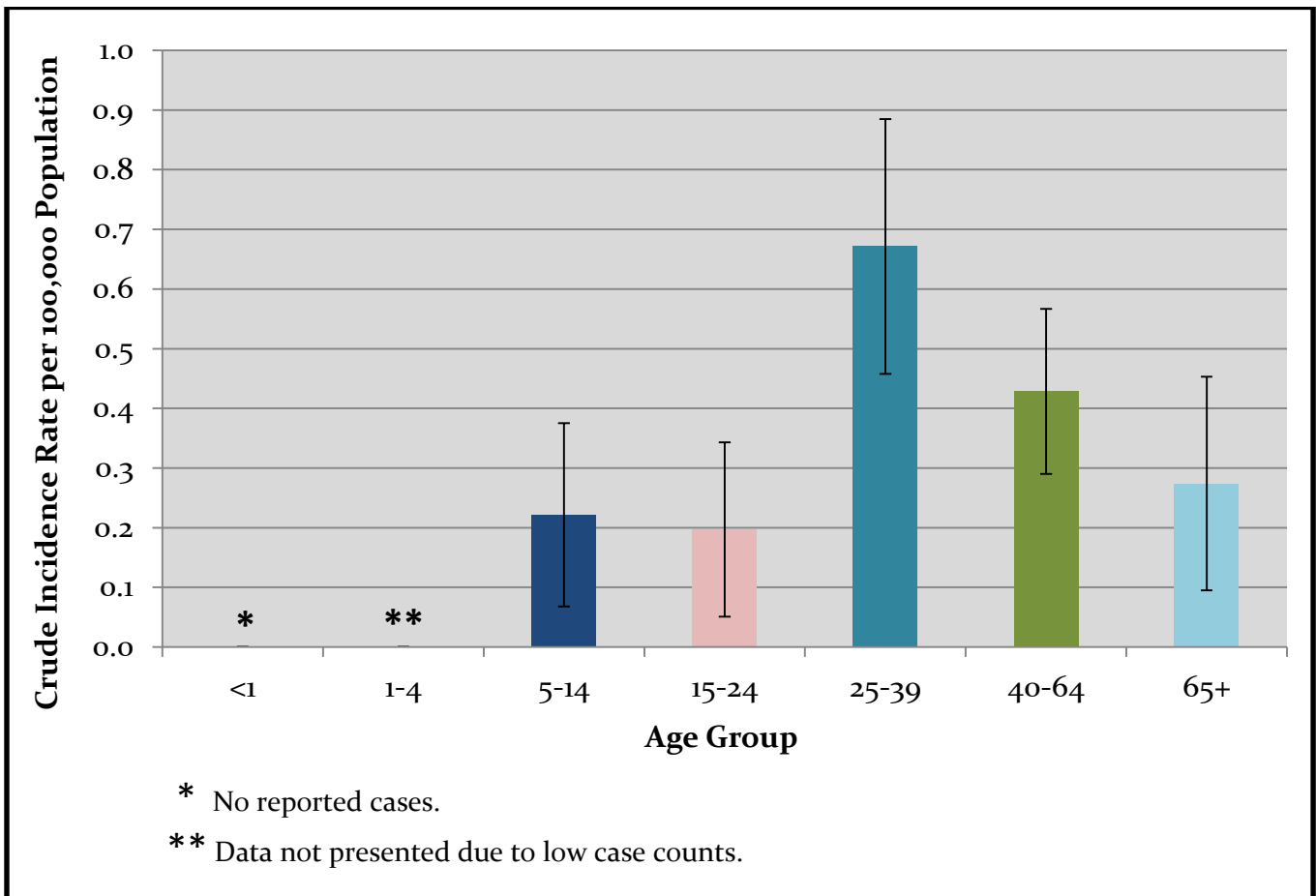
The crude incidence rate in Nevada from 2005 to 2014 was 0.4 cases per 100,000 population.

## Figure 2. Age-Adjusted Incidence Rates of Amebiasis in Nevada and Nevada Health Districts: 2005-2014



\* Data not presented due to low case counts.

### Figure 3. Crude Incidence Rates of Amebiasis in Nevada by Age Group: 2005-2014



## Technical Notes

All Nevada data from 2005 to 2014 came from reported amebiasis infections among Nevada residents (5, 6). The CDC and Council of State and Territorial Epidemiologists case definition of amebiasis encompasses all cases classified as confirmed; all cases of amebiasis used for this report follow this definition (7). Population estimates were obtained from Nevada State Demographer's Office (8). Rates may differ slightly from other reports using different vintages of population estimates. Age-adjusted rates per 100,000 population were calculated using the 2000 U.S. standard population. Sufficient case counts were not available to obtain age-adjusted incidence rates for racial/ethnic groups; therefore, racial/ethnic distributions of incidence are not presented in this report. When used for rates, error bars represent 95% confidence intervals. Due to their inherent unreliability, rates were not calculated for case counts lower than five.

## Sources

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## Recommended Citation

Division of Public and Behavioral Health. Office of Public Health Informatics and Epidemiology. *Amebiasis in Nevada, 2005-2014*. Carson City, Nevada. January 2016. e 1.0.

## Acknowledgements

Thank you to all persons who greatly contributed to this publication:  
Jennifer Thompson; Kyra Morgan; Peter Dieringer, MPH; and Maximilian Wegener, MPH

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This publication was supported by Cooperative Agreements 1U50OE000037-01 and 1U50CK000257-01 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention.