

TITLE: INCIDENCE OF *Giardia* spp. CYSTS IN WATER SAMPLES

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ABSTRACT:

Giardia spp., is a protozoan parasite responsible for causing a pathology known as giardiasis and infects several types of species, however, it only develops the complete biological cycle in the human host. Such microorganisms are found mainly in contaminated water and food, but also in feces, causing serious health problems. For this reason, this parasite is of great importance for public health and the main cause of diarrhea caused by protozoa. The present study verifies the incidence of *Giardia* spp. cysts worldwide. The incidence of *Giardia* spp. in water samples, extracting mean and standard deviation information from 16 articles, among them, seven fit the selected criteria. Subsequently, the test of proportions was used, with a significance limit of 5%, through the software R studio® 4.0.2 and STATA. The highest concentration of *Giardia* spp. cysts was located in lakes (98% - China), rivers (97% - Spain and Brazil), and surface waters (65% - Brazil and USA). While the lowest concentrations were found in water from lakes, wells, rivers and running water (19% - Ethiopia) and 10% for general waters. Data analysis reveals the importance of sanitary water treatment as well as the cultural society and sanitary character of different nations, of which, countries with a higher quality of life, expressed a lower number of cysts per liter.

Keywords: *Giardia* spp., Incidence, Cyst, Public Health, Contamination.

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