

## PRESENCE OF *Legionella pneumophila* IN HOUSEHOLD DRINKING WATER RESERVOIRS IN RESISTENCIA, CHACO, ARGENTINA.

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### BACKGROUND

There is little information of the incidence of Legionnaires' disease in Latin America. In Argentina the incidence of pneumonias as a consequence of *Legionella* infection is approximately 2%. Nonetheless there is no information of the occurrence of *Legionella* in engineered systems in the country.

### OBJETIVE

The aim of this study was detect the presence of *Legionella pneumophila* in household drinking water tanks of the city of Resistencia, Chaco.

### MATERIAL AND METHODS.

The sampling was non-probabilistic for convenience. Thirty two water samples taken from different points in the city were studied. *Legionella* detection in the samples was performed by culture as set out in the ISO standard 11731:1998. Real-time polymerase chain reaction (qPCR) assay was applied to isolates obtained by culture and identified as *Legionella* spp according to the ISO standards. The target sequences used corresponded to 23S rRNA gene, for the confirmation of the genus, and mip gene specific for the species *L. pneumophila*.

### RESULTS.

In 12 (37.5%) of the 32 samples studied, *Legionella* spp was recovered. The presence of *L. pneumophila* was confirmed by qPCR in all positive samples. In addition, 3 of these samples (9.5%) were also positive for another species of the genus *Legionella*. The number of samples studies represents 0.03% of households connected to the public water distribution system of Resistencia city.



### CONCLUSION

This study demonstrated the presence of *L. pneumophila* and other *Legionella* species in residential drinking water reservoirs of Resistencia city. Also it represents the first report of the surveillance of this organism in engineered water systems of Argentina.