

# 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 pnuemonias 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**

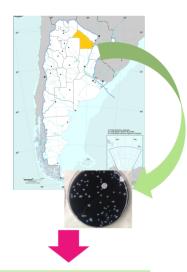
The aim of this study was detect the presence of Legionella pneumophila in household drinking water tanks of the city of Resistencia, Chaco.

### 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. Realtime 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.