

Case study of complaints on drinking water quality: Relationship to copper content?

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Several families of Talca city, Chile complained to health authorities for what they attributed to consumption of copper (Cu)-contaminated drinking water. We assessed the situation 6-12 mo after the initiation of complaints by characterizing the symptoms reported, the chemistry of drinking water, and the Cu concentration in stagnant drinking water. After completing a census, 1778 households accepted participation and were categorized as follows: category 1, Cu plumbing for tap water and dwellers reporting health complaints (HC); category 2, Cu plumbing for tap water and dwellers reporting no HC; category 3, plastic plumbing for tap water and dwellers reporting no HC.

Questionnaires recorded characteristics of households and symptoms presented by each member of the family in the last 3 mo. The Cu concentration in drinking water was measured in a subsample of 80 homes with Cu pipes. In category 1, participants presented significantly more abdominal pain, diarrhea, and/or vomiting (gastro