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Arsenic: Association of Regional Concentrations in Drinking Water with Suicide and Natural Causes of death in Italy

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#### ACCEPTED MANUSCRIPT

# Arsenic: Association of Regional Concentrations in Drinking Water with Suicide and Natural Causes of death in Italy

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#### Abstract

Arsenic, as a toxin, may be associated with higher mortality rates, although its relationship to suicide is not clear. Given this uncertainty, we evaluated associations between local arsenic concentrations in tapwater and mortality in regions of Italy, to test the hypothesis that both natural-cause and suicide death rates would be higher with greater trace concentrations of arsenic. Arsenic concentrations in drinking-water samples from 145 sites were assayed by mass spectrometry, and correlated with local rates of mortality due to suicide and natural causes between 1980 and

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