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**WELL WATER SAFETY: A STUDY IN PUBLIC AWARENESS**

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**INTRODUCTION**

Although 30-50% of Vermont citizens rely on private wells for drinking water, there is no state requirement for regular contaminant testing. As a consequence, it is possible that private well users may be exposed to a variety of potential health hazards, including bacteria, arsenic, fluoride, and radionuclides. Our group sought to better understand public awareness of testing recommendations, how often private well users have their wells tested, and what obstacles may be keeping them from doing so. With this information we hope to learn more about how Vermonters are using private wells, and how we can better serve public health in Vermont.

**METHODS**

• Surveys were distributed at Department of Health local offices across the state, Vermont state voting locations and at the Thomas Chittenden Health Center and were voluntarily completed in October and November, 2010.
• In total 284 surveys were included in the study, including 127 using private water sources.
• Graphs were created using Excel. Analytical statistics were completed using an online chi-square calculator from the University of Kansas.

**RESULTS**

![Private Water Source Testing Frequency](image1)

**Figure 1:** Private Water Source Testing Frequency

![Testing by Children in the Household](image2)

**Figure 2:** Testing by Children in the Household

![Testing by Education Level](image3)

**Figure 3:** Testing by Education Level

![Reasons for Not Testing by Education Level](image4)

**Figure 4:** Reasons for Not Testing by Education Level

![Use of Bottled Water by Water Source](image5)

**Figure 5:** Use of Bottled Water by Water Source

![Preferences for Additional Information by Education Level](image6)

**Figure 6:** Preferences for Additional Information by Education Level

**DISCUSSION**

• Our study shows that over half of private water users do not test their water, which puts them at risk of potential exposure to drinking water contaminants.
• Education level seems to play a significant role in water testing, awareness of testing recommendations, and the barriers to testing.
• Less educated populations may be more likely to rely on a landlord for testing, to not be concerned about water quality, and to be unaware of testing recommendations.
• According to the respondents, having free water testing and more information available through flyers and the internet would be most helpful.
• Study results indicate that additional education should be focused on households with children, as children may be especially vulnerable.
• Visible public education, specifically using flyers and internet, is needed.

**REFERENCES**