

Private Well Protection Household Survey

OVERVIEW OF RESULTS FROM A STATEWIDE SURVEY

Private Wells in Minnesota

- Over one million Minnesotans (21 percent) get their drinking water from private wells.
- Contaminants, such as arsenic, nitrate, and coliform bacteria, can get into groundwater and cause health problems.
- When a new well is constructed, the water must be tested for arsenic, nitrate, and coliform bacteria before the water can be used.
- After the initial water test, private well users are responsible for making sure their water is safe to drink by testing it regularly and treating or finding an alternative water source when necessary.

In 2016, Minnesota Department of Health (MDH) conducted a survey to find out if private well users are taking action to make sure their drinking water is safe.

Survey Overview

- Sent to 3,815 Minnesota households** with a well constructed after 2008 and a well test result for arsenic above the limit allowed in public water supplies—called the Maximum Contaminant Level (MCL). The arsenic MCL is 10 micrograms per liter.
- Questions were about:** MDH communications materials, actions taken after receiving test results, well testing practices, what would prompt them to test, general knowledge related to wells, preferences for receiving information, and socio-demographic factors.
- 798 responses.**

Results

Actions Taken After Receiving Results

With the initial water test result, MDH included arsenic information and recommended the well user take action to protect their health.

- 34 percent did not take any action.**
- 36 percent installed a treatment system.
- 25 percent drink bottled water.

Top Reasons for Not Taking Action	Percent
Not concerned about the arsenic level	50
Were not sure what to do or who to contact	21
Treatment options were too expensive	15
Treatment systems were too difficult to use	15
Had not gotten around to it yet, but plan to	11

Some respondents took no action because their well contractor or builder said not to worry because the arsenic level was:

- Typical for the area.
- Too low to be dangerous.
- Would decrease with time.

Predictors of Installing a Treatment Unit



Income



Knowing people who have tested



Child in home

Well Testing Practices

At least 81 percent did not test their well at the frequency MDH recommends for other contaminants. MDH recommends testing for:



How Can We Help Private Well Users Protect Their Health?

The results highlight ways public health practitioners can improve outreach approaches to help private well users protect their health.

Partner to Prompt Testing

The table shows what people listed as being “very important” for prompting them to test their water.

Prompt (Potential Partner)	Percent of Respondents
Doctor’s recommendation (clinics, medical providers)	59
Infant/young child in home (childcare, WIC, schools)	50
Well testing event in my community (local government)	50
Town official’s suggestion (local government)	31
News article about testing (local paper/media)	21

Make Test Kits Locally Available

Respondents preferred the following ways to order and return water test kits.

Order a test kit online and return it by mail was the preference for people:

- Under 50 years old, or
- With a bachelor’s degree or more, or
- With incomes over \$100,000.

Pick up and drop off a test kit at a community location was the preference for people:

- Over 50 years old, or
- With less than a bachelor’s degree, or
- With incomes under \$100,000.

Use Diverse Communication Channels

Respondents ranked where they would look for information about how to manage their water safety and quality.

Internet was the first choice for people:

- Under 50 years old, or
- With a two-year degree or more, or
- With incomes over \$80,000.

Water testing laboratories were the first choice for people:

- Over 50 years old, or
- With less than a two-year degree, or
- With incomes under \$80,000.

Local partners (local government and licensed well contractors) were the second and third choices for receiving water information for most age, education, and income groups.

What MDH is Doing

- Working with local partners.
- Improving risk messaging about contaminants in well water.
- Expanding our outreach to include methods other than our website and brochures.
- Working with laboratories to provide consistent public health messaging.
- Investigating options for providing test kits at community locations.

What You Can Do

- Help increase risk perception. Share information about the common occurrence of contaminants in well water and how they can impact health.
- Share water testing and treatment information with private well users.
- Make it easy to pick up private well test kits in your community.
- Provide information about how to manage well water safety and quality on your webpages (MDH can help).
- Contact MDH Well Management Section if you would like to partner on outreach or have ideas for protecting private well users’ health.

Helpful Resources

- Learn more about the Arsenic Survey: Private Well Protection (www.health.state.mn.us/divs/eh/cwl/wells).
- Map of arsenic in private wells by county: Private Wells-Arsenic (<https://apps.health.state.mn.us/mndata/webmap/wells.html>).