

Social dimensions of private well testing: Why don't people test their well water?

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Purpose of Survey Research

To help increase private well testing by identifying barriers and challenges faced by well owners

Today

- **Survey design & implementation**
- **Results**
 - All populations
 - Comparisons between states
- **Conclusions & Implications**

Survey Research

- 3-state project, funded by Extension Great Lakes Water Program
- 600 surveys in MN and MI; 1400 in WI
- Survey design fall 2006, mailed March 2007
- Results returned March-May, 2007

**Understanding Laboratory
Testing of Well Water:**
Survey of Households in
Minnesota, Wisconsin and Michigan



Minnesota Survey Conducted by:
University of Minnesota Water resources Center
University of Minnesota Extension
Extension Great Lakes Regional Water Quality Program

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Photo, B. Liukkonen

Targeted Survey Recipients

- **Arsenic** or **Nitrate** risk levels
- **Test program** participants
- Ex-urban and rural

- Addresses randomly selected within target populations

Challenges

- Developing questions
 - To give useful information
 - Understandable – answerable
- Dealing with addresses, tax files
- Signing & mailing
- Incentives



Photos: B. Luukkonen

Survey Returns: March - May

	WI \$2+Coupon	MN \$2 Bill	MI Coupon
Surveys mailed	1459	596	635
Surveys completed	1057	386	290
Return Rate	72%	65%	48%

Demographics - Gender & Age

	MN	WI	MI
Male	63%	56%	52%
Female	37%	44%	47%
Mean age 3 = 40-49 4 = 50-59	3.95	3.81	3.98

More demographics

	MN	WI	MI
Mean Years	19.9	17.9	18.6
Child in home	36%	39%	39%
Education 3=some tech/college 4= tech school 5=college	3.53	3.57	3.73

Were survey respondents representative?

- Education slightly higher in most counties
- Income levels higher in many counties

Internet at Home?

	MN	WI	MI
Internet at Home	72%	75%	73%



Applying knowledge to improve water quality

Great Lakes

Regional Water Program

A Partnership of USDA CSREES
& Land Grant Colleges and Universities

Do they drink well water?

- **33%** mostly to always (M-A) drink untreated well water
- **53%** seldom to never (S-N) drink untreated well water
- **14%** M-A drink purchased bottled water

Water treatment

A photograph of a person's hands filling a green plastic cup with water from a kitchen faucet. The faucet is a modern, curved chrome design. The water is flowing into the cup. In the background, there is a bottle of yellow dish soap on the counter. The scene is set in a kitchen sink.

- What types do they use?
- How often do they maintain them?
- Who is the primary decision-maker?

32% said they maintain system less often than recommended

Opinion of well water safety ...

- Before any treatment? *(all states combined)*

Very unsafe	Unsafe	Somewhat Unsafe	Somewhat Safe	Safe	Very Safe
4%	5%	11%	13%	47%	20%

67% believe their untreated well water is Safe or Very Safe

Opinion of well water safety ...

- Before any treatment - by state

	MN	WI	MI
Mean – Higher = more safe	4.66	4.57	4.35

How worried about health risks?

- From untreated well water?

No response	Very Worried	Worried	Slightly Worried	Not Worried
1%	2%	9%	33%	55%

MN Data

How worried about health risks?

- Before any treatment - by state

	MN	WI	MI
Mean Higher = less worried	3.44	3.36	3.24

What would prompt a water test?

- Neighbor's well contaminated - **86%**
- Change in taste, odor, looks - **86%**
- Well testing program available - **66%**
- Unexplained health problems – **63%**

What would prompt a water test?

(Continued)

- Contamination in the area – **61%**
- State or local requirement – **59%**
- Getting a reminder or discount - **33%**
- New baby living or visiting – **28%**

Why did you test?

- To know if my water is safe – **40%**
- Testing program offered – **29%**
- New well - **16%**
- Real estate transaction – **14%**
- Infants or pregnant woman in home – **12%**
- Test regularly – **8%**

Questions about water testing

- How would you prefer to get the kit?
- Where would you want to test?
- How would you prefer to get test results?

Main reasons for not testing?

(people who haven't tested)

- We've been drinking for years – **53%**
- Didn't know what to test for – **41%**
- Don't know how – **35%**
- It's probably fine – **25%**
- Didn't know I should – **17%**

Main reasons for not testing?

(continued)

- It costs too much – **17%**
- Wait for others – **12%**
- Dealing with problem would be \$ - **12%**
- Missed the testing program – **8%**
- I don't want to know – **8%**
- We don't drink it – **7%**

Thoughts about water testing

among those who hadn't tested

- **41%** - Never thought about it
- **12%** - Thought, but not going to test
- **6%** - Plan to test in next year
- **41%** - Plan to test sometime

Where would you look for info?

	MN	WI	MI
Most common response	Local health (23%)	Online (23%)	Local health (36%)
2 nd	State health (20%)	Local health (22%)	Online (25%)
3 rd	Online (17%)	Water test lab (16%)	DEQ (13%)
4 th	Extension (16%)	State Health (15%)	State Health (12%)

Further analysis

- Crosstab analysis with demographics (e.g., age, gender, children, income, education)
- Crosstabs between certain responses
- Analysis of comments

Conclusions

- People believe their water is safe
- 20% didn't know they **should** test
- 40% don't know **what** to test for
- People want info from local sources & online
- Program testers were older and longer-term residents

Implications

- Regular programs can prompt testing
 - as can news about contamination
- Cost may be seen as a barrier
 - have to help people see value
- Provide clear outreach materials
 - why, how & what to test for

To increase private well testing

- Be clear about need
- Provide info online and easily accessible
- Make it easy – local programs
- Partner with local Public Health Departments & private labs

HOUSE FROM WELL
ENTER AT OWN
RISK! WHATEVER
YOU DO  DRINK THE H₂O

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