

# MINNESOTA RADON PROGRAM UPDATES

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Indoor Air Unit

6/18/15

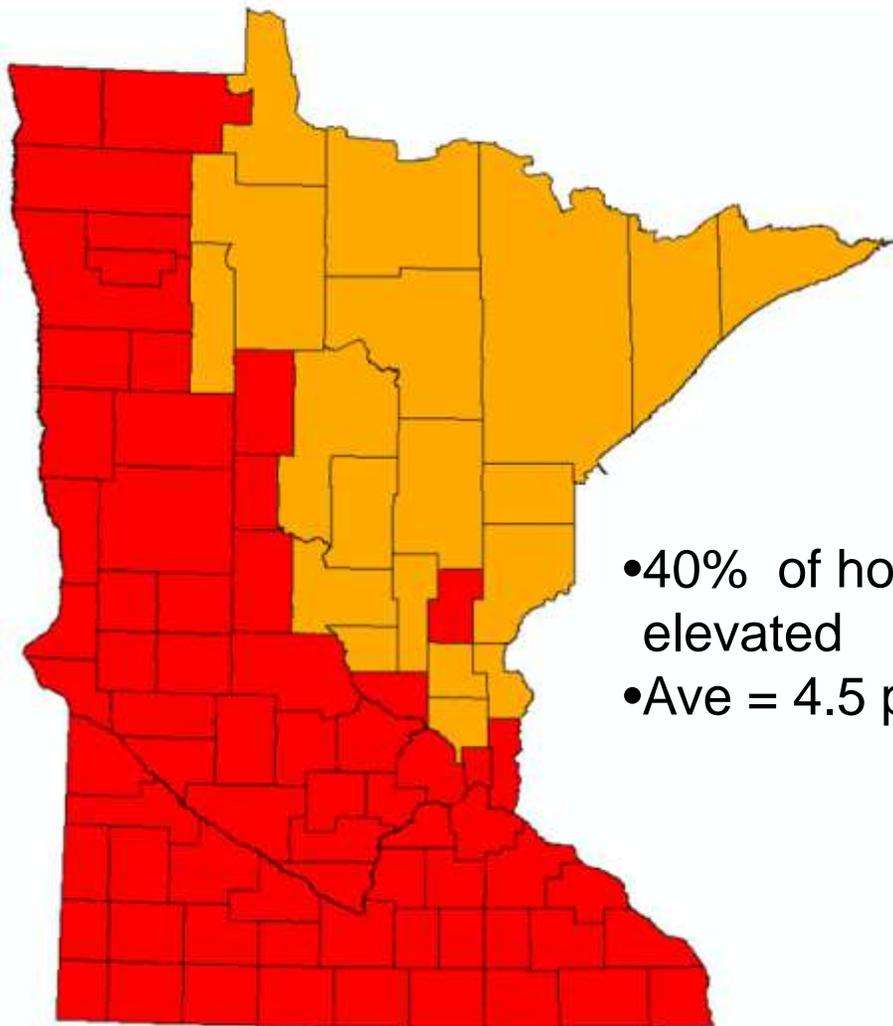
MI Radon Stakeholder Workshop



# Radon in Minnesota

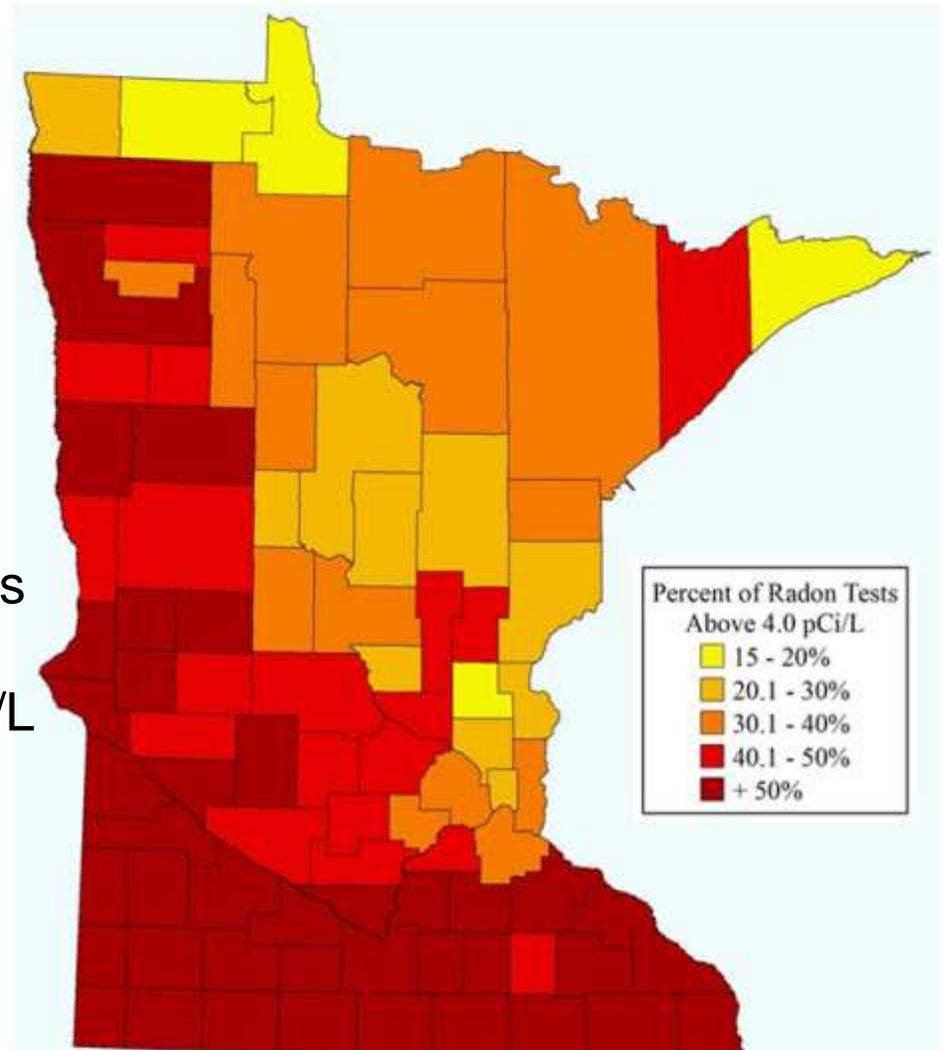


Minnesota Map of Radon Zones



- 40% of homes elevated
- Ave = 4.5 pCi/L

Minnesota Map of Radon Test Results



# Outreach, Education, Advertising

# National Radon Action Month



- Governor's Proclamation
- Press release
  - ▣ "New disclosure law helps to increase number of homes fixed to reduce radon levels"
  - ▣ Interviewed for 14 media stories across state (probably more stories)
- Toolkit for partners
  - ▣ Press release, newsletter articles, social media messaging, promoting free continuing education courses, power point presentations, test kit tracking

# National Radon Action Month



- Skyway, radio, mall ads
- Local public health & NGO partnerships
- Press release
  - ▣ Template to local health
  - ▣ Also in November (Lung Cancer Month) and April (National Public Health Week)
- Great press coverage
  - ▣ Increased 'presence' (advertising, outreach)
  - ▣ 'Radon Awareness Act' Bill

# General Public, Schools, Medical, Public Health



## Events/Conferences

- School Nurses
- School Facility Managers
- ALA Lung Force Expo
- Cancer Summit
- MN DOT Employee Wellness
- Fulton Fall Festival
- Women's Wellness Event
- MDH NRAM
- MPLS Home and Garden Show
- MN Oncology Nursing Society
- MN American Public Health Association

## Presentations

- School IAQ Trainings (6)
- Community Forum – Virginia Piper Cancer Institute
- Homemakers Association, Morris
- MDH Open Forum
- Metro Child and Teen Checkup
- Isle Schools Community



# Radio Ads & Coverage



- Twin Cities and Statewide
  - Multiple MPLS stations
  - Largest stations in larger out-state markets
- November - January
  - PSAs
    - KS95: 212 PSAs, 30 seconds, 2.38 million impressions
    - MyTalk107: 212 PSAs, 60 seconds, 865,000 impressions
  - Social media - 20 Posts to Facebook followers (~40,000)
  - KS95: 60 PSAs, 60 seconds
- Results Matter
  - 15 second spots in prime time spots
  - Morning and afternoon drive time
  - No middle of the night ads

# Results Matter



- Nov and Jan
- Statewide



“Radon gas is a silent killer. Two in 5 homes have dangerous levels. Radon is the second leading cause of lung cancer and the number one killer in Minnesota homes. Is your family safe? Test your home for radon for less than \$10. Visit M N dot Radon dot com ([mn.radon.com](http://mn.radon.com)) to order your kit”.

**ORDER  
TEST KITS  
HERE:**

Click Here to order  
**Short Term** kits with  
your Credit Card  
(\$9.95)

Click Here to order  
the **Long Term** kits  
with your Credit Card  
(\$21.95)

Visit the [Minnesota  
Department of  
Health Radon  
Website](#) for more  
radon information.



in partnership with



# RADON

- 1 Test Your Home
- 2 Reduce Your Exposure
- 3 Spread the Word



**Offering Minnesota and Surrounding Area Residents Discounted Radon Test  
Kits**

# Skyway Ads



Is your home giving you lung cancer?

Radon is the leading cause of lung cancer in non-smokers. Your home poses the greatest risk. Test your home.

**MDH**  
MINNESOTA DEPARTMENT OF HEALTH

[www.health.mn.gov/radonad](http://www.health.mn.gov/radonad)  
(800) 798-9050

## January

- ▣ Skyways
- ▣ 59 ads
  - Minneapolis
  - St Paul
  - Duluth
  - Rochester
- ▣ Over 1000 promotional pieces distributed

## Does your house suck?

This house sucks



This house doesn't



Can you tell the difference? We can't.  
Test your home to find out if it sucks in radon.

**Radon in your home causes lung cancer!**



[www.health.mn.gov/radonad](http://www.health.mn.gov/radonad)  
(800) 798-9050

# Mall Ads



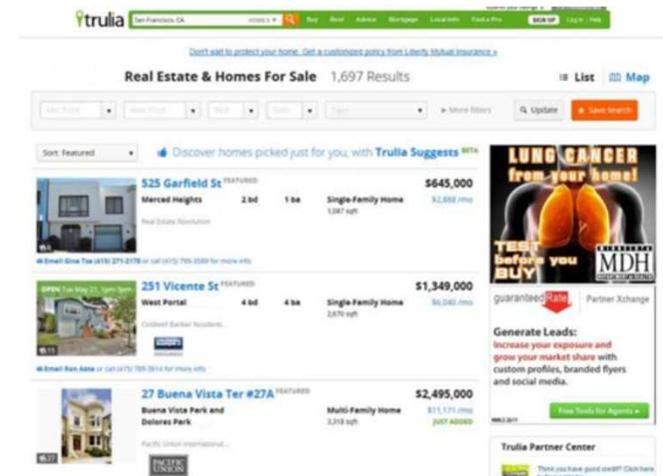
- ❑ Ran in November and January
- ❑ Mall of America, 2 suburban outlet malls
- ❑ Kiosks and Rotundas



# Real Estate Ads



- 90 days on Trulia Website (Feb – May)
- St. Paul, Duluth, Rochester, Mankato + 5 small cities/suburbs
- 350,068 ad views



# Television Coverage



- MDH Press Release and Bill Coverage
- Twin Cities
  - WCCO
  - FOX 9
  - KARE11 (multiple)
  - KSTP
- Greater MN
  - Counties:
    - Becker, Brown, Cass, Carver, Clay, Crow Wing, Freeborn, Itasca, Mower, Olmsted, Stearns, Wilkin, Winona, Wright

# Newspaper Coverage

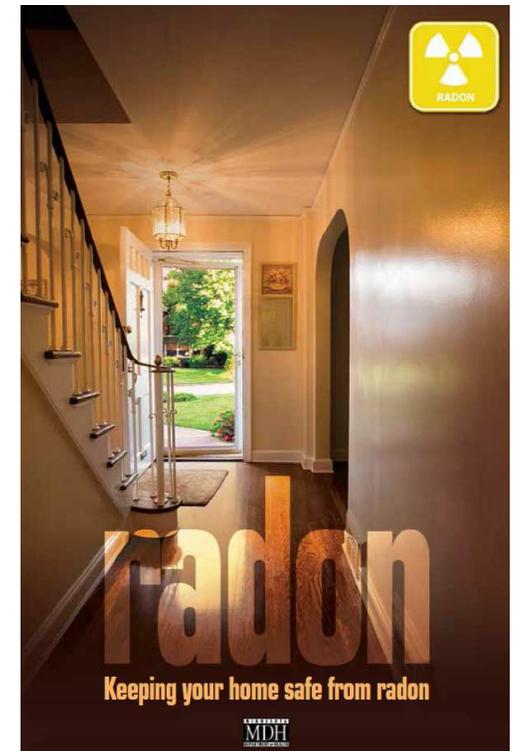


- Minneapolis Star Tribune
  - 'Should radon be disclosed in Minnesota home sales?' (2/27/13)
  - 'Health beat: A nurse takes on the radon threat' (2/16/13)
  - 'Minnesota is a hotbed for radioactive gas radon' (2/12/13)
- St Paul Pioneer Press
  - 'Radon is a silent killer, and Minnesota is a 'high-risk' state for it' (1/13/13)
  - 'Minnesota making cheap radon testing kits available' (1/8/13)
- Associated Press & Online papers (dozens)
- Local papers
  - Becker, Brown, Cass, Carver, Clay, Crow Wing, Freeborn, Hennepin, Itasca, Mower, Olmsted, Stearns, Wilkin, Winona, Wright

# Partnerships



- Mostly local public health, some non-profits
  - ▣ test Kits: 14,000 ST, 1,500 LT
  - ▣ 96 organizations/projects
- Technical assistance
  - ▣ contractors, home owners
  - ▣ 5 per month
- Quarterly Stakeholder Meetings
  - ▣ 2/year Required for MDH listing
  - ▣ 30-80 attendees



# ECHO Project

ECHO develops and distributes educational health, safety, and emergency preparedness materials in multiple languages

- Digital video short in 4 languages
  - ▣ Hmong, Somali, Spanish, English
- Content
  - ▣ Dangers of radon
  - ▣ Where/how to use a radon test kit
  - ▣ What to do if radon levels are high



## Advanced Diagnostics Services

Company by City	Contractor & Contact Info	Services Provided	Service Area
Ameradon Services, LLC 814 Minnie Maddern St <b>Albert Lea, MN 56007</b>	Brian Westerlund - NRPP 107723RMT 507-318-8094 <a href="http://www.ameradon.com">Ameradon Services</a> ( <a href="http://www.ameradon.com">www.ameradon.com</a> )	Advanced Diagnostics Single Family Multi Family	100 Mile Radius
Home Safety Solutions 17092 Barium St W <b>Andover, MN 55304</b>	Greg Comer - NRPP 104324RMT 763-434-3263 <a href="http://www.homesafetysolutionsinc.com">Home Safety Solutions</a> ( <a href="http://www.homesafetysolutionsinc.com">www.homesafetysolutionsinc.com</a> )	Advanced Diagnostics Single Family Multi Family	Statewide
Home Safety Solutions 17092 Barium St W <b>Andover, MN 55304</b>	Walter Donnay - NRPP 104322RMT 612-685-9999 <a href="http://www.homesafetysolutionsinc.com">Home Safety Solutions</a> ( <a href="http://www.homesafetysolutionsinc.com">www.homesafetysolutionsinc.com</a> )	Advanced Diagnostics Single Family Multi Family	Statewide
A1 Radon Services LLC 9980 Dell Rd <b>Eden Prairie, MN 55347</b>	Andrew Costigan - NRPP 106633RMT 612-207-3049 <a href="http://www.a1radonservices.com/index.html?m">A1 Radon Services</a> ( <a href="http://www.a1radonservices.com/index.html?m">www.a1radonservices.com/index.html?m</a> )	Advanced Diagnostics Single Family Multi Family	Metro
Healthy Homes LLC 16526 W 78th St #156 <b>Eden Prairie, MN 55346</b>	Robert Carlson - NRPP 103015RMT 952-220-9409 <a href="http://www.healthyhomesradon.com">Healthy Homes</a> ( <a href="http://www.healthyhomesradon.com">www.healthyhomesradon.com</a> )	Advanced Diagnostics Single Family Multi Family	Statewide
Bauer Restoration, Inc. 930-2 Hulett Ave <b>Faribault, MN 55021</b>	Bruce Bauer - NRPP 103902RMT 507-333-9838 <a href="http://www.bauerrestoration.com">Bauer Restoration, Inc.</a> ( <a href="http://www.bauerrestoration.com">www.bauerrestoration.com</a> )	Advanced Diagnostics Single Family	30 Mile Radius

## Radon in Schools

### Radon Testing Plan

According to Minnesota Statute 123B.571, school districts that receive health and safety revenue to conduct radon testing must conduct the testing according to this 'Radon Testing Plan'.

- ▶ If short term testing is chosen, conduct testing on school days only (not holidays, vacations or weekends), between November 1 and March 31
- ▶ If long term testing is chosen, conduct testing in a manner where at least half the test duration includes days between November 1 and March 31
- ▶ Use certified radon testing devices, as listed by either the:
  - ▶ [National Radon Proficiency Program \(NRPP\)](#)
  - ▶ [National Radon Safety Board \(NRSB\)](#)
- ▶ Test all frequently-occupied rooms, including rooms with ground contact and rooms immediately above unoccupied spaces that are in contact with the ground, such as crawl spaces and tunnels.
- ▶ Conduct follow-up testing in all frequently-occupied rooms that have radon  $\geq 4$  pCi/L
- ▶ Take corrective measures in frequently-occupied rooms that have radon  $\geq 4$  pCi/L following Environmental Protection Agency (EPA) guidelines described in "Reducing Radon in Schools: A Team Approach."
- ▶ Re-test after corrective measures that reduce radon levels.
- ▶ Report radon test results to the Minnesota Department of Health (MDH), using the MDH 'School Radon Testing Form' on the MDH school radon website.
- ▶ Report radon test results at a school board meeting.

[Best Practices for Radon Measurement in Minnesota Schools and Commercial Buildings \(PDF:577KB/34 pages\)](#)

[School Radon Reporting Form \(PDF:69KB/3 pages\)](#)



[Reducing Radon In Schools](#) webinar sponsored by the U.S. EPA.

#### Questions?

[health.indoorair@state.mn.us](mailto:health.indoorair@state.mn.us)  
651-201-4601 or  
800-798-9050

# Best Practices for Radon Measurement in Minnesota Schools and Commercial Buildings

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Indoor Environments & Radiation Section  
Indoor Air Unit  
PO Box 64975  
St. Paul, MN 55164-0975

Phone: 651-201-4601 or 800-798-9050  
Fax: 651-201-4606  
TTY: 651-201-5797  
[www.health.state.mn.us/radon](http://www.health.state.mn.us/radon)

Version 3  
March 2013

# Radon Awareness Act

Legislation to educate home buyers and sellers and real estate professionals

# Background



- Radon not regulated in MN\*
  - ▣ Except new construction since 2009
- General disclosure requirements in real estate (MS 513.55) inadequate
  - ▣ Discourages seller from testing
    - have to disclose if high
  - ▣ Misleading to buyer
    - can check off 'no radon environmental concern' if never tested
- Do realtors educate their clients?
  - ▣ Yes, but about everything?
  - ▣ Varying levels of knowledge and training

# Why Real Estate? Common Questions



- ❑ I never heard about radon...Why?
- ❑ Why did I not hear about this when I bought my home?
- ❑ Why didn't my realtor tell me about radon?
- ❑ Why isn't the government doing more to ensure we know about this hazard?

# Radon Awareness Act



- Applies to most residential real estate
- Buyers and sellers given information
  - ▣ MDH radon publication
  - ▣ Radon Warning Statement
  - ▣ Seller Discloses:
    - whether radon levels known (i.e., no testing)
    - history of testing/mitigation
    - records of testing/mitigation
- Very similar to Ill. Radon Awareness Act
  - ▣ No separate form – MAR opposed
  - ▣ No renters language, yet
- January 1, 2014 Effective Date

# Radon Warning Statement



“The Minnesota Department of Health strongly recommends that ALL homebuyers have an indoor radon test performed prior to purchase or taking occupancy, and recommends having the radon levels mitigated if elevated radon concentrations are found. Elevated radon concentrations can easily be reduced by a qualified, certified, or licensed, if applicable, radon mitigator.

Every buyer of any interest in residential real property is notified that the property may present exposure to dangerous levels of indoor radon gas that may place the occupants at risk of developing radon-induced lung cancer. Radon, a Class A human carcinogen, is the leading cause of lung cancer in nonsmokers and the second leading cause overall. The seller of any interest in residential real property is required to provide the buyer with any information on radon test results of the dwelling.”

# Radon in Real Estate Transactions



All Minnesota homes can have dangerous levels of **radon gas** in them. Radon is a colorless, odorless and tasteless **radioactive gas** that can seep into homes from the earth. When inhaled, its radioactive particles can damage the cells that line the lungs. Long-term exposure to radon can lead to **lung cancer**. About 21,000 lung cancer deaths each year in the United States are caused by radon, making it a serious health concern for all Minnesotans.

It **does not matter if the home is old or new** and the only way to know how much radon gas has entered the home is to conduct a radon test. MDH estimates **2 in 5 homes built before 2010** and **1 in 5 homes built since 2010** exceed the 4.0 pCi/L action level.



In Minnesota, buyers and sellers in a real estate transaction are free to negotiate radon testing and reduction. Ultimately, it is up to the buyer to decide an acceptable level of radon risk in the home. Prospective buyers should keep in mind that it is inexpensive and easy to measure radon, and radon levels can be lowered at a reasonable cost. The MDH Radon Program website provides more detailed information on radon, including the MDH brochure "Keeping Your Home Safe from Radon."

The Minnesota Radon Awareness Act does not require radon testing or mitigation. However, many relocation companies and lending institutions, as well as home buyers, require a radon test when purchasing a house. The purpose of this publication is to educate and inform potential home buyers of the risks of radon exposure, and how to test for and reduce radon as part of real estate transactions.



## Radon Facts

### **How dangerous is radon?**

Radon is the **number one cause of lung cancer in non-smokers** and the second leading cause of lung cancer overall, next to tobacco smoking. Thankfully, much of this risk can be prevented through testing and taking action to reduce high levels of radon gas when and where they are found. Your risk for lung cancer increases with higher levels of radon gas, prolonged exposure and whether or not

# Impact



- In Illinois, 3 – 4 x increase in radon testing during real estate transactions
- About 100,000 MN residential real estate transactions per year
- Increased awareness → increased testing → radon reduction → lung cancer reduction
- Estimate a 2.5x increase in homes tested during real estate transactions
- Drastic increase in mitigations reported

# Other Benefits



- These concerns go away:
  - ▣ I never heard about radon...Why?
  - ▣ Why did I not hear about this when I bought my home?
  - ▣ Why didn't my realtor tell me about radon?
  - ▣ Why isn't the government doing more to ensure we know about this hazard?
- Level Playing Field
- Misinformation is avoided
- Realtor liability lessened

# Real Estate



- ❑ Dept. Commerce requires (7/1/14 – 6/30/15) 3.75 hr. CE class on all disclosures (all ~16,000+ licensees must take)
- ❑ MDH Radon Class
  - ❑ Optional
  - ❑ Free class
  - ❑ MDH travels
  - ❑ 1.5 hours CE credit
  - ❑ 2100 attendees
  - ❑ 100 classes
- ❑ MDH also offers Mold and Radon classes
  - ❑ Increases interest in radon



# MN RRNC Study

A study comparing radon in homes with passive vs. active radon resistant features

# MDH Study Goals



## Evaluate:

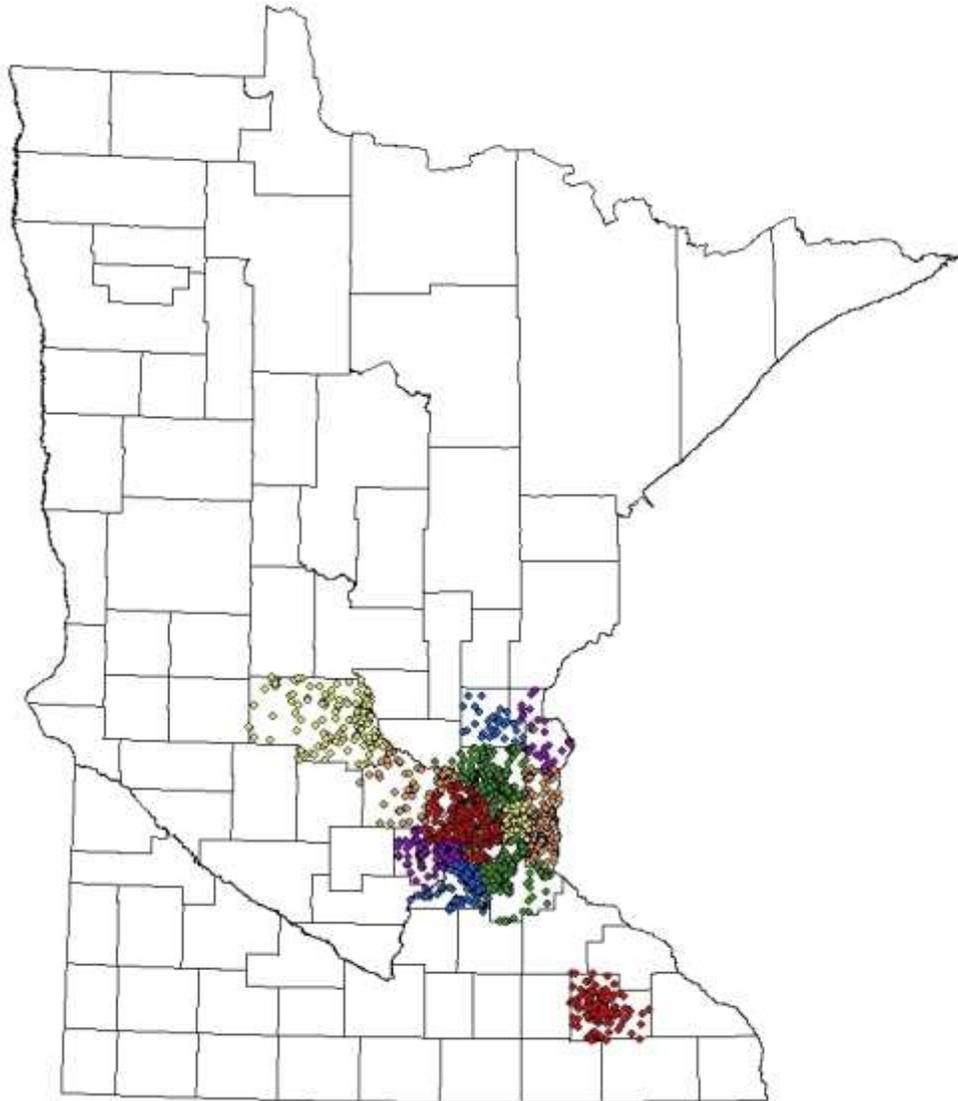
- ❑ Radon in an estimated 1,000 'as-built' homes with passive RRNC features
- ❑ The change in radon when 100 of these homes are activated
- ❑ Radon in 100 'as-built' active RRNC MDH Gold Standard homes

# Study Method Passive - Active Conversion



1. Collect property tax info from largest counties
2. Recruitment letters sent to 8,562 homes in MN's largest and fastest growing 13 counties
  - ▣ Certificate of occupancy since Jan. 2010
3. Homeowners mailed test kit
4. Homes  $>4$  pCi/L
  - ▣ send fan + test kit
  - ▣ Homeowners had fan installed and retested
5. Analyze results

# Homes Targeted



County	# Letters Sent
Anoka	1438
Carver	1002
Chisago	39
Dakota	832
Hennepin	1851
Isanti	47
Olmsted	548
Ramsey	224
Scott	846
Sherburne	148
St. Louis	---
Stearns	305
Washington	1111
Wright	171
<b>TOTAL</b>	<b>8562</b>

# Results: Passive Homes



- 8,562 – Letters sent (~500 RTS)
- 1,141 – Homes signed up (14.2% return rate)
- 815 – Homes Tested (71.4% return rate)
- 162 – Homes with levels > 4 pCi/L (21%)
- 1.9 pCi/L – median w/ passive systems
  - State median = 4.2 pCi/L
  - Targeted counties median = 3.1 pCi/L
- 38.2 pCi/L – highest result

# Results: Activated Systems



- 126 fans offered
  - 105 shipped
  - 73 installed
- 73 Houses tested
  - 1 still above 4.0 (4.6 pCi/L)
  - 94.2% median reduction
  - 0.3 pCi/L median activation result

# Results: Active Only Homes



- 37 active houses tested
- 1 house above 4.0 pCi/L (4.3)
- 0.6 pCi/L median result

# Gold Standard for RRNC



- ❑ MN code requires passive RRNC
- ❑ Gold Standard Builders offer fan to customers
  - ❑ marketing, point for Green Path, fans, etc
- ❑ 112 Builders
  - ❑ 12 of top 25 builders
  - ❑ 23% of builders reporting homes built
- ❑ New builder CE class



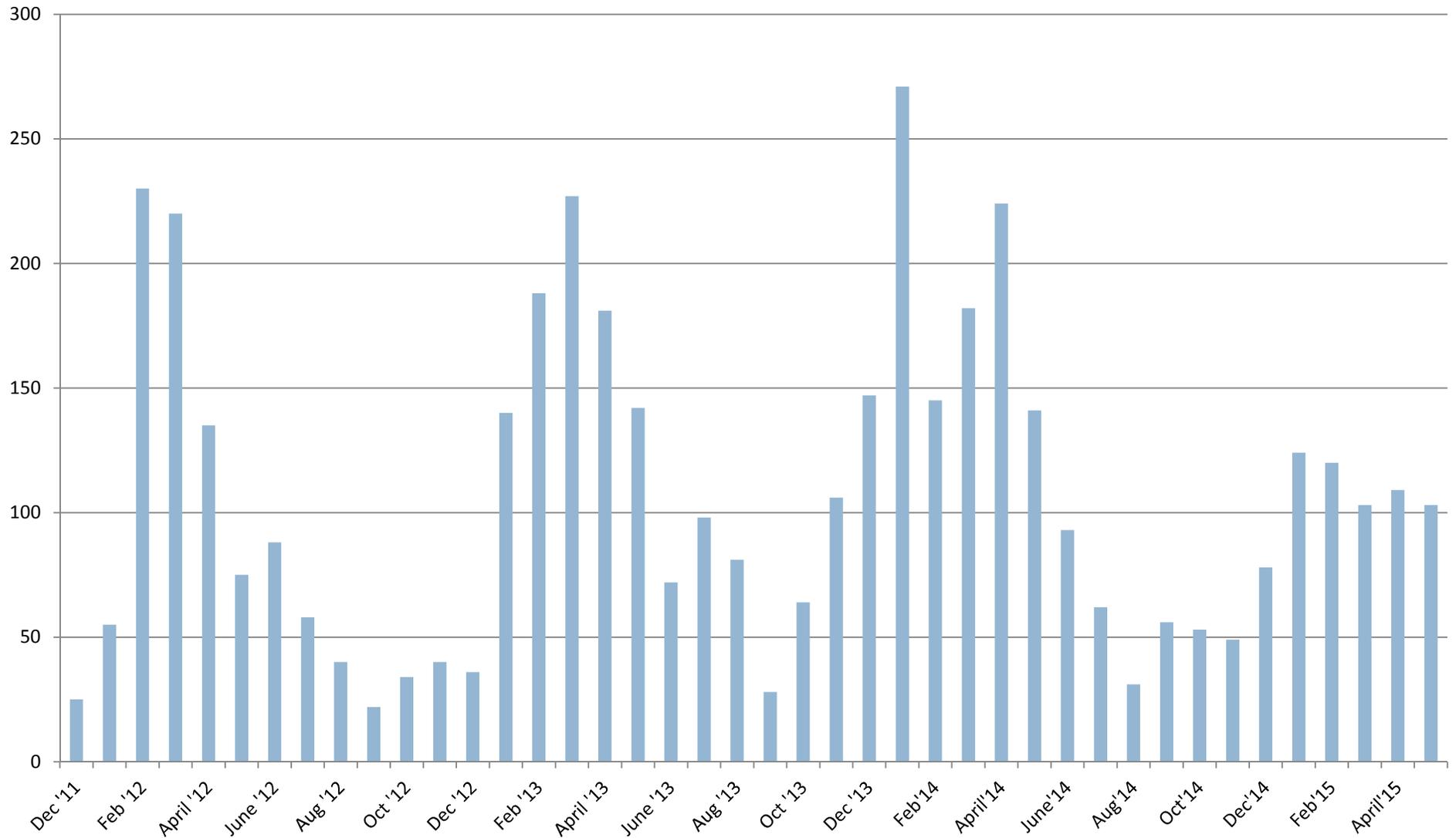
# RRNC Changes



- 2012 IRC moved from Energy Code to 2015 Building Code
- Expanded to include multi-family and mixed-use buildings
  - ▣ Now includes 4 units and more
  - ▣ Equity
- Effective Feb 2015

# Outcomes

# Monthly Calls/E-mails

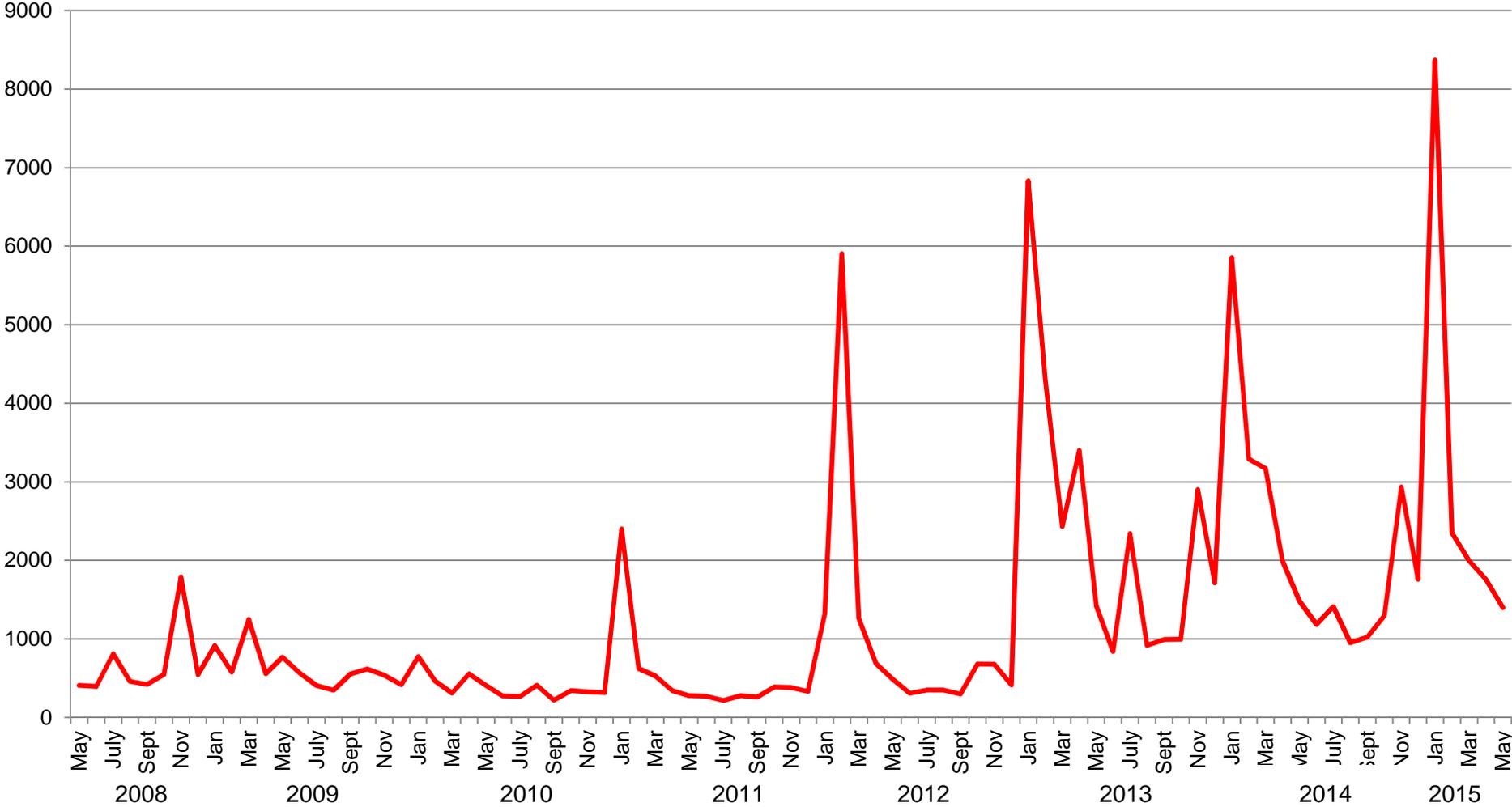


# mn.radon.com

## Web Hits



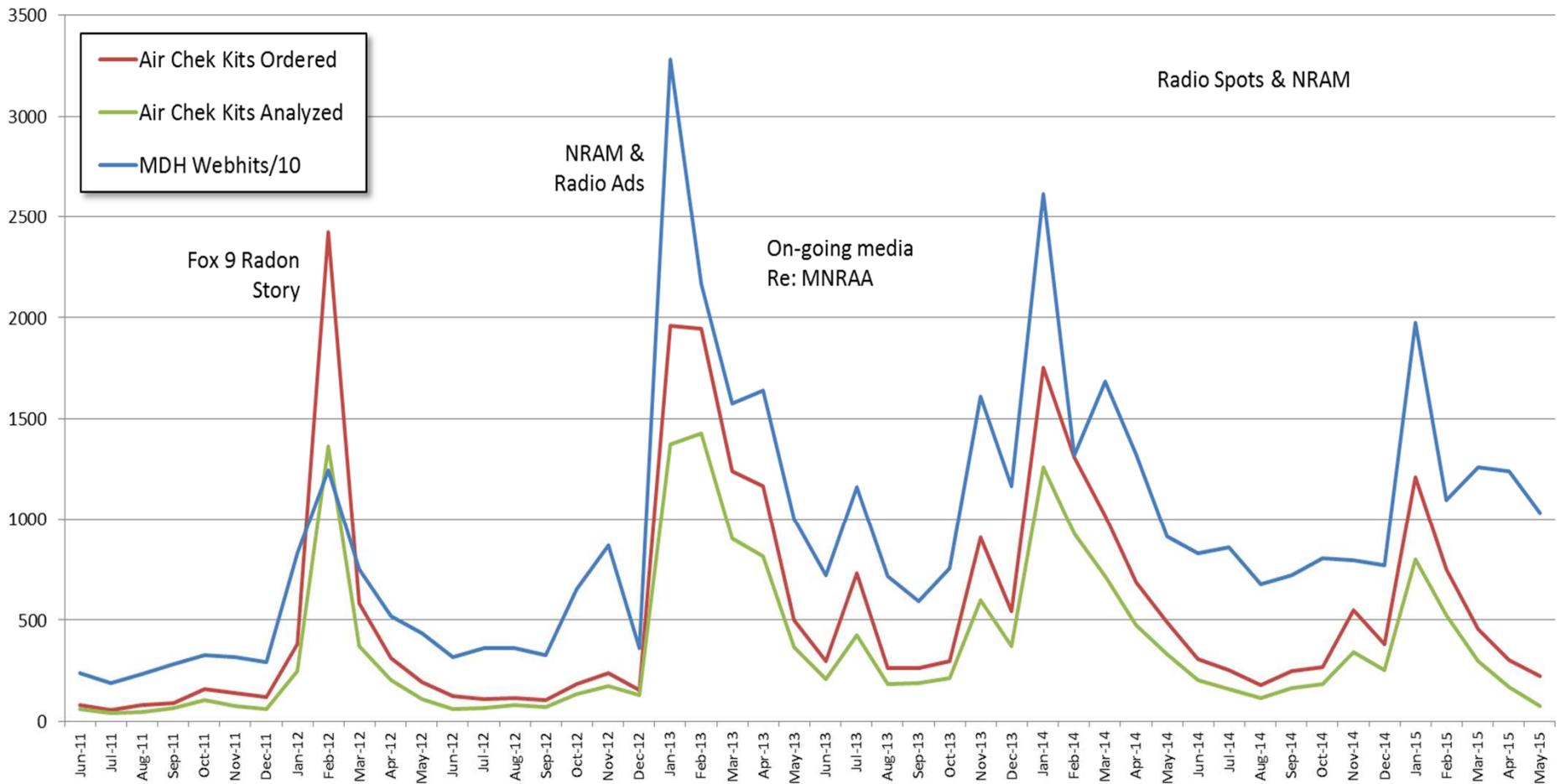
MN.radon.com Webhits



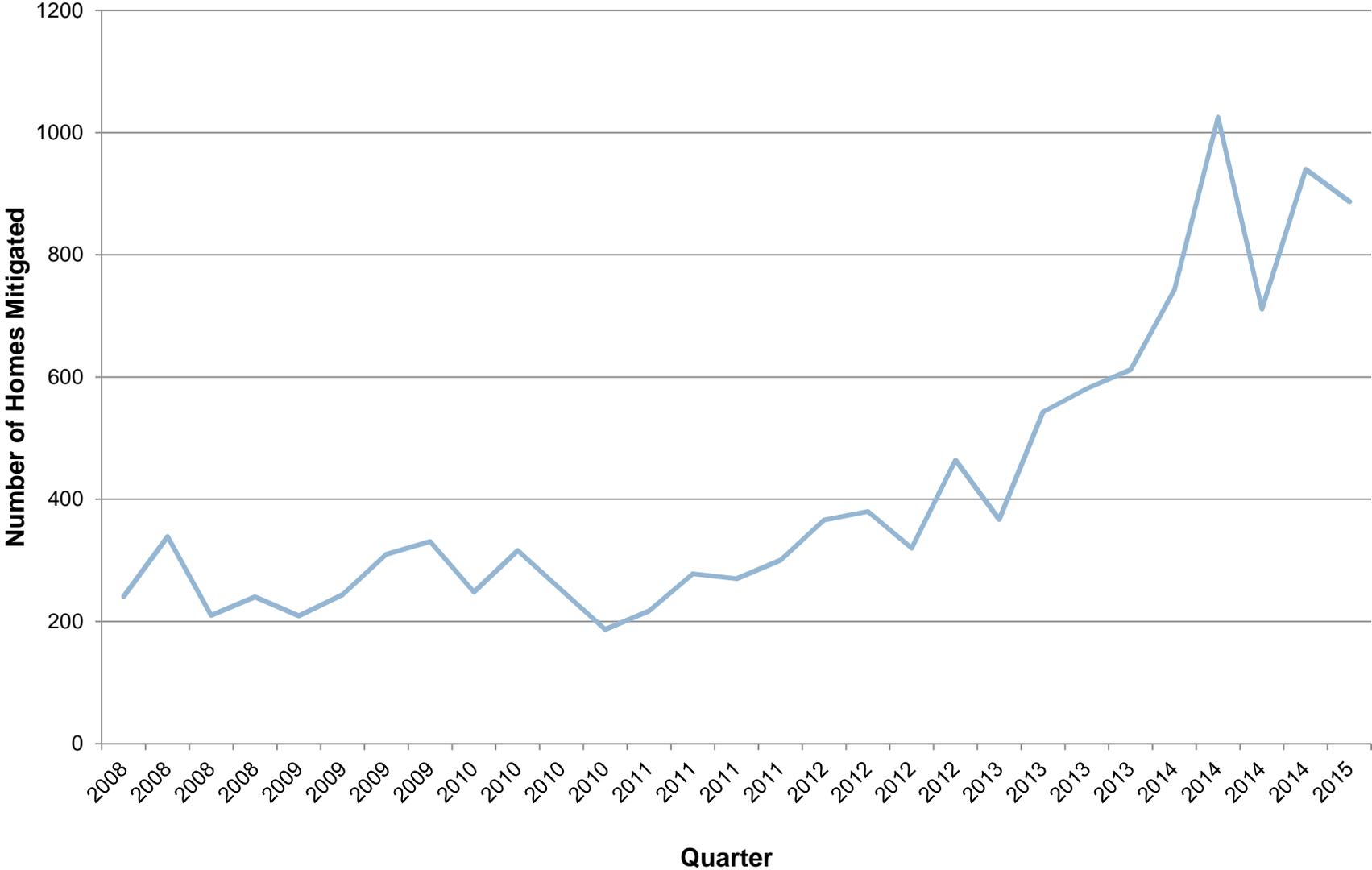
# MDH Web Hits, Air Chek Kits Ordered



MDH Web Hits and Air Chek Test Kit Sales



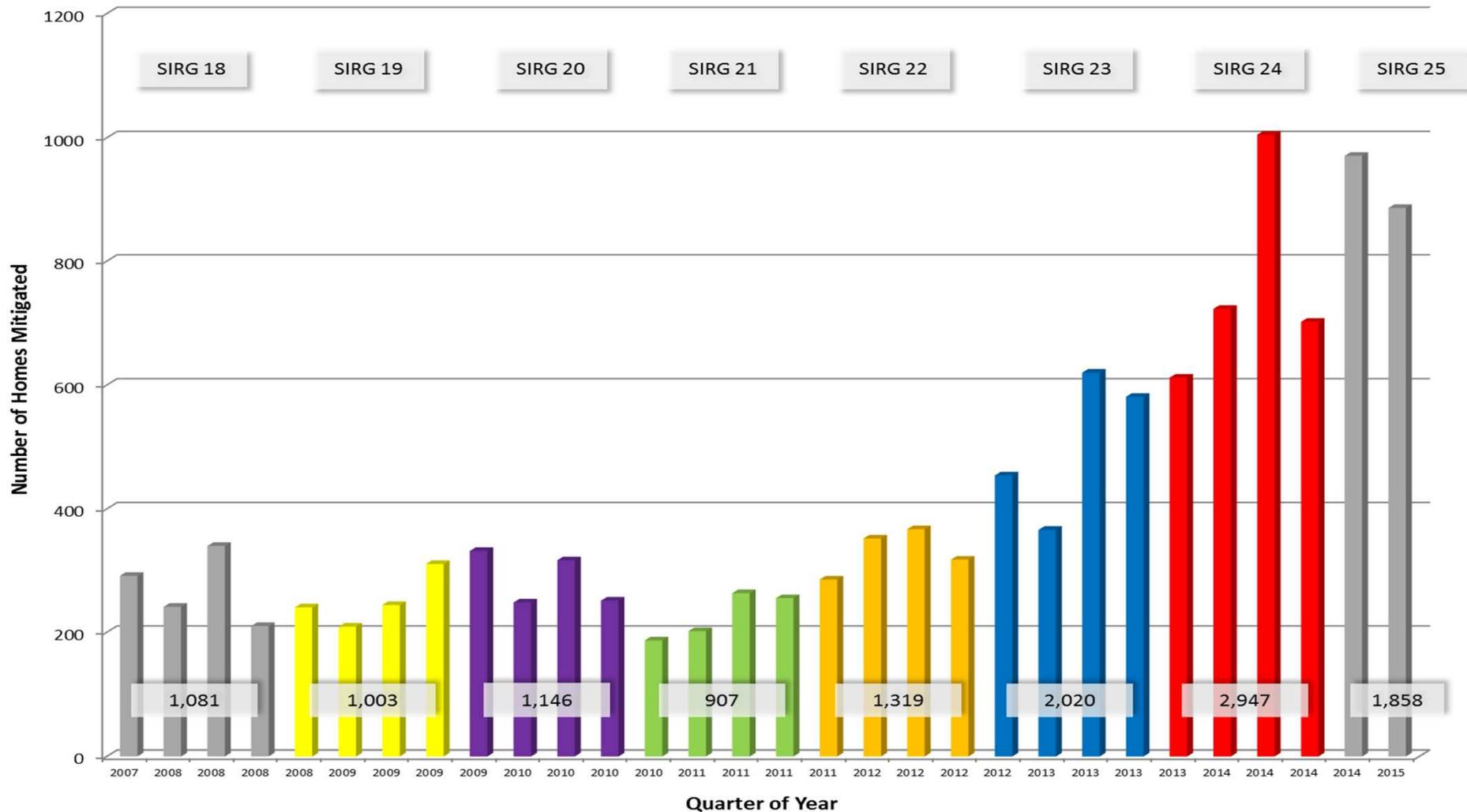
# Quarterly Mitigations Reported to MDH



# Quarterly Mitigations Reported to MDH



Radon Mitigation Systems Installed by SIRG Year



# Looking Forward

# Looking Forward



- Continue Real Estate Education Program
- Active RRNC Promotion
- Home childcare outreach
- Continue assisting schools
- Radon Licensing Act

# Radon Licensing Act



- Governor's proposal
- Measurement, mitigators, labs licensed
- Similar to OH/IL regulations
- Minimal statutory language
  - ▣ Rules will specify requirements
- SF 1458
  - ▣ Passed House and Senate May 17, 2015
  - ▣ Signed by Governor Dayton May 22, 2015
- Effective date 10/1/17

# Contact Information



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651-201-5613

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**MDH Radon Website:**

<http://www.health.state.mn.us/radon>

**MN Specific Radon Test Kits:**

<http://mn.radon.com>