



## Radon Testing and Home Sales

### A Case Study

In 2015, Montgomery County, Maryland became the first jurisdiction in the nation to pass a law requiring that homes for sale be tested for radon, an invisible odorless radioactive gas that causes lung cancer. Many jurisdictions have hesitated or declined to establish such requirements because of concerns over the perceived potential for negative impact on real estate sales.

Montgomery County's experience provided an opportunity to see what this "real world" experiment would show about requiring radon testing during home sales. The American Lung Association sought to answer two questions:

1. Was there any significant effect of required radon testing on the volume of home sales or the median sales price?
2. How did the new law affect the number of radon tests being done in the county?

To answer these questions, the Lung Association contracted with the University of Iowa to review real estate data from Montgomery County. The Lung Association also examined testing data from cooperating testing laboratories, collected by the Colorado Department of Public Health and Environment.

**Results:** The evidence showed no significant effect of the testing requirement on the volume of home sales or the median sales price compared to the five years before the law went into effect. The evidence did find a significant increase in radon testing.

### Background

Radon is a naturally occurring radioactive gas that causes lung cancer. It is produced by the decay of uranium atoms in rocks and soil. Radon produced under and around building foundations frequently finds its way indoors. This radioactive gas is often present in homes and other buildings at levels high enough to lead to an estimated 21,000 lung cancer deaths from radon exposure each year in the United States.

Testing radon levels indoors is the only way to determine if dangerous levels of this gas exist in homes. A person's senses cannot detect radon, nor does radon exposure cause any immediate symptoms. However,

simple testing can determine whether levels are high enough to be dangerous and warrant repairs. Fortunately, fixing high levels of radon in homes is relatively straightforward—a routine matter for trained mitigation professionals.

Since the recognition in the 1980s of radon as a serious nationwide health problem, some real estate professionals have asked whether mandating radon testing in the course of residential real estate transactions might pose undue barriers to sale.

In 2015, with the passage of a law requiring radon testing for many residential real estate sales in Montgomery County, Maryland, an opportunity arose to explore the impact of such a rule. It then became possible to look at home sales and prices before adoption of the law, and through and after its implementation.

The Lung Association worked with independent experts to gather and analyze the available information. Eric Brown of the Colorado Department of Public Health and Environment gathered data for the area from cooperating radon testing laboratories. Grant Brown, PhD, of the University of Iowa, conducted analysis of that information and statistics collected and posted online by the Greater Capital Area Association of Realtors® serving Montgomery County.

## The Results

Two dates of note were used to group the data:

- Montgomery County Council enacted its Radon Testing Law on **November 17, 2015** (with approval by the County Executive one week later).
- The law's implementation date was **October 1, 2016**—although it appears that many parties began following its requirements prior to that date.

The following results were observed in Montgomery County, ***compared to the year prior to passage***:

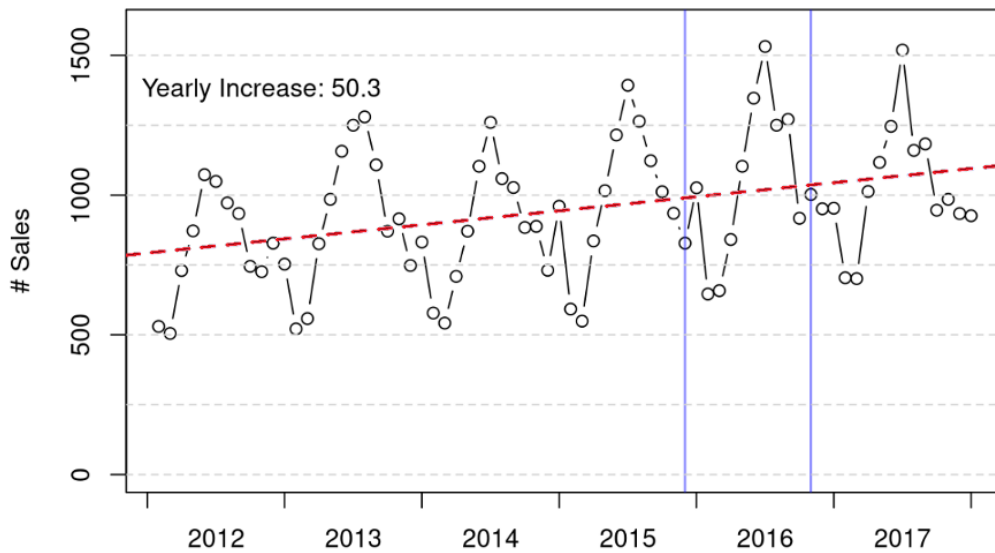
- During the period between passage of the testing law and its implementation,
  - An average of 66 more new homes were sold per month;
  - The homes sold at a median price that was \$3,400 higher;
  - There was an average increase of 70 radon tests per month.
- In the year after the law went into effect,
  - An average of 72 more new homes were sold per month;
  - The homes sold at a median price that was \$18,000 higher;
  - There was an average increase of 87 radon tests per month.

## Analysis/Discussion

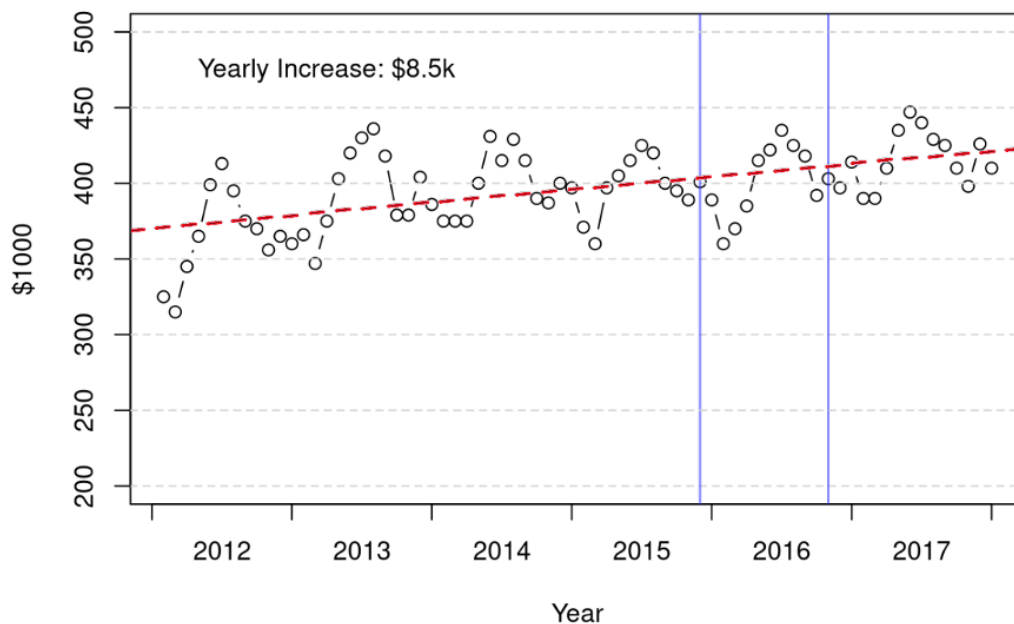
The real estate market fluctuates over the course of each year, and changes regularly over time. To assess the impact of the Montgomery County radon testing law on the real estate market, the Lung Association needed to review relevant metrics before and after the law's adoption and implementation.

Specifically looking at closed-sale volume and median price, there was no indication of marked disruption in predictable patterns after the passage or implementation of the radon law. Rather, what stands out is an overall steady growth in sales volume and price, with large regular seasonal swings in both measures.

**Number of Closed Sales  
Before and After Passage/Implementation**



**Median Sales Price  
Before and After Passage/Implementation**

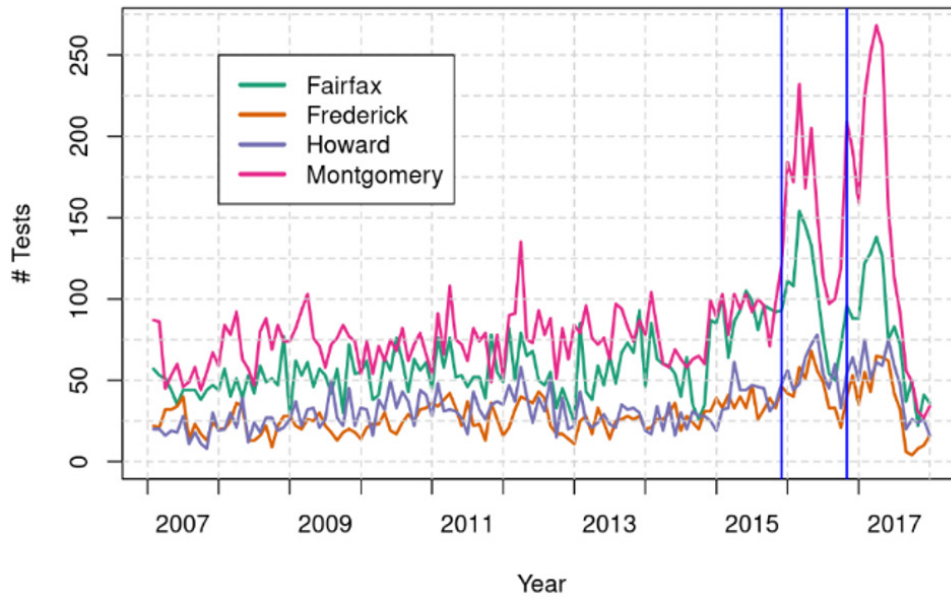


*These charts track home sales in Montgomery County, Maryland both before and after the County added the requirement for radon testing, as indicated by the first blue vertical line. The second blue vertical line marked the date that the requirement officially took effect. Source: Data from the Greater Capital Area Association of Realtors®; analysis by Grant Brown, PhD, University of Iowa.*

Even after accounting for overall trends and seasonal variation, there was no evidence of any systematic effect of passage of the radon law or its implementation upon closed sales and median price over time. Any changes observed were well within the usual annual variability in the market.

In addition, the Lung Association found strong evidence that the number of radon tests performed increased after the law was enacted. That indicates that more people were following the new requirements.

**Radon Tests by County/Year  
Before and After Passage/Implementation**



*This chart shows the rapid increase in testing for radon in Montgomery County, MD after the County added the requirement for radon testing, as indicated by the first blue vertical line. The second blue vertical line marked the date that the requirement officially took effect. Source: Data from radon testing laboratories supplied by Eric Brown of the Colorado Department of Public Health and Environment.*

## The Conclusion

- The Montgomery County radon testing law appears to have had no significant impact on countywide home sales or median price.
- The law did successfully increase radon testing.
- These results indicate that radon testing laws can have the intended effect of increasing testing, and that such laws do not necessarily create a negative impact on real estate markets.



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