

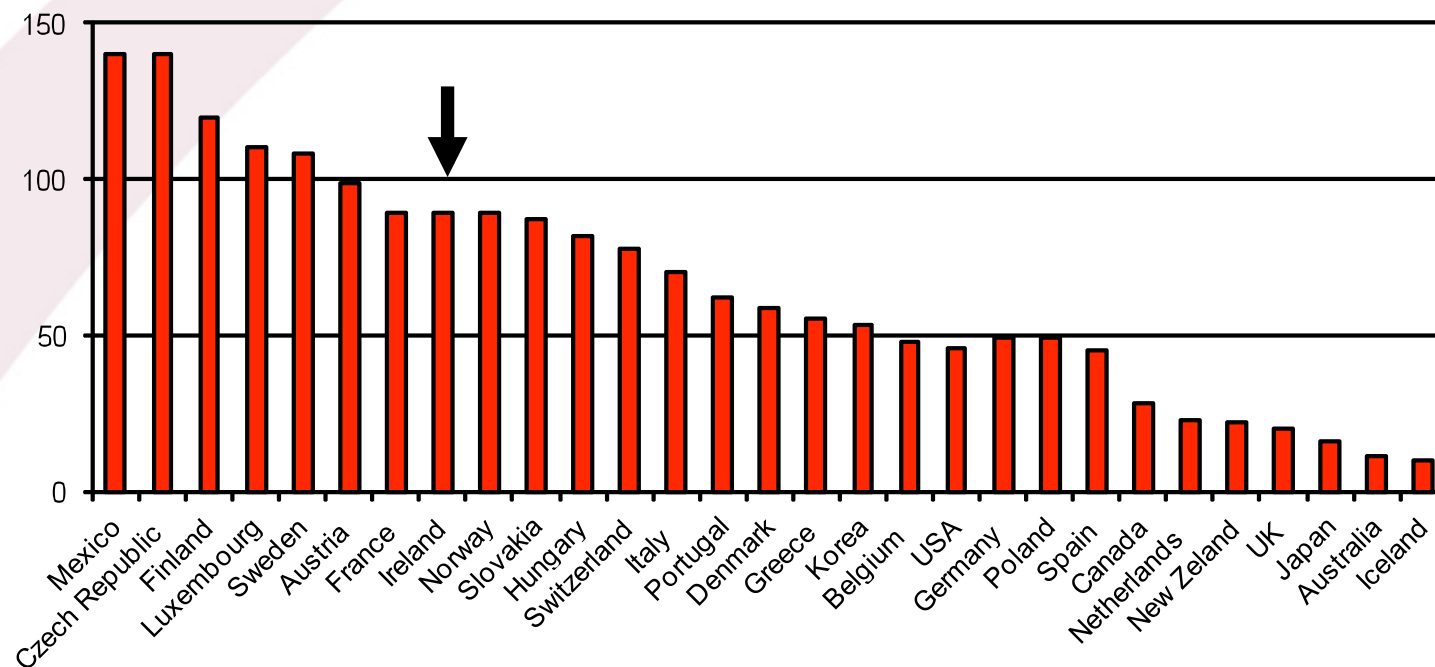


Radon: Raising awareness, promoting action

Presentation by
Mark Brennock

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2009 Mean Radon Concentrations (WHO)



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The Irish problem

- National reference level 200 Bq/m³
- 91,000 homes above reference level
- Linked to 200 lung cancer deaths per year
- Big regional variations – “high radon areas”



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Public Awareness

- Aware of radon 77%
- Radon in the home is a health risk 56%
- Likely to have your home tested 36%
- Likely to take action if radon reading is high c25%

Awareness does not automatically lead to action



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Communications Can Promote Action

Only if there is:

- Clearly understood message
- Repetition of message
- Same message, different sources
- Human stories – making the threat real
- Making action look easy: offer citizens a clear pathway to dealing with the issue

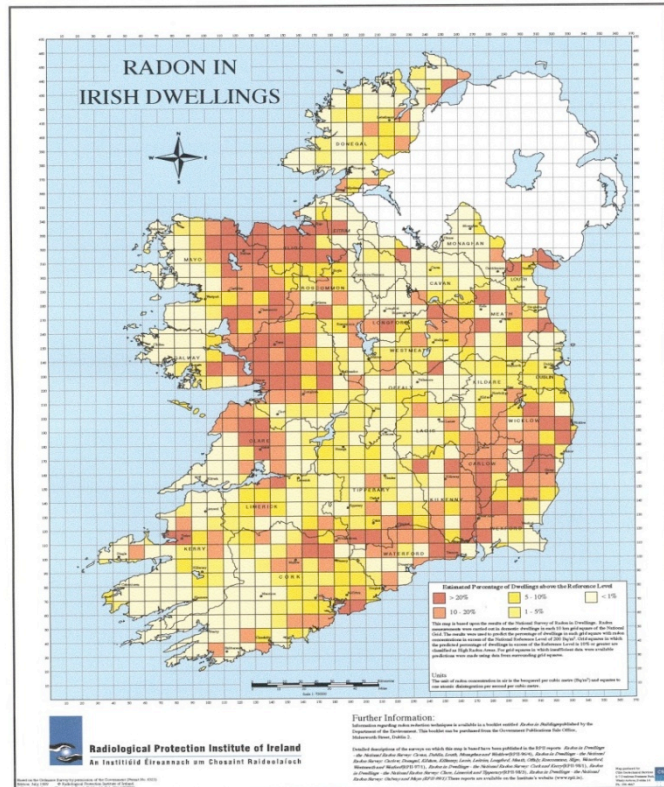


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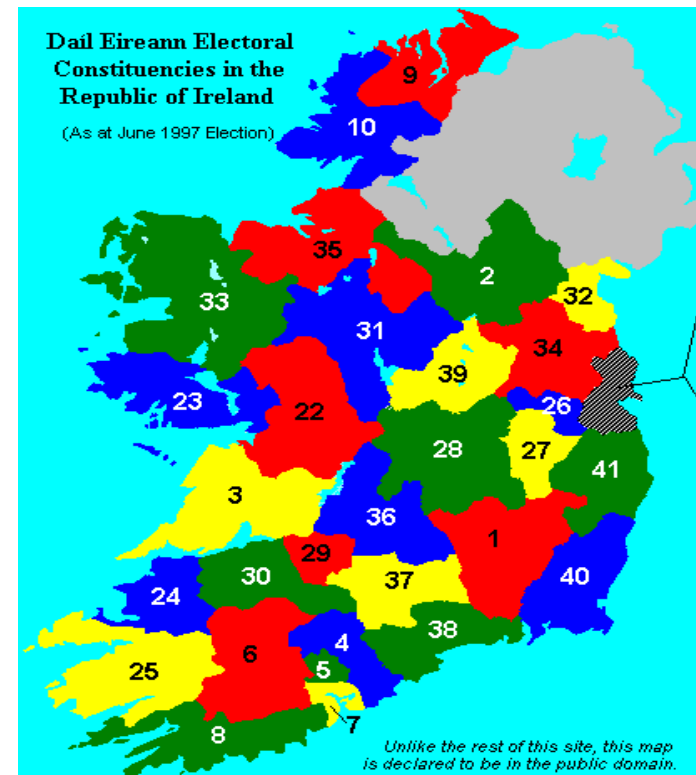
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Build Public/Political Interest (all politics is local)

Radon Map



Political Map



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Original Strategy

- Local road shows – public meetings
- Using high radon readings to win local media “hit”
- National press release 2-3 times a year



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Perceived Limitations of Original Strategy

- National coverage not intensive enough to force citizens to act (“that isn’t about me”)
- Regional presence sporadic
- Regional public meetings not backed by other communications channels
- Tended to be “invitation-led”



Current Strategy

- Not only a public meeting but a local “Radon Week” in high radon areas.
- Three to four each year
- Follow up PR activity in areas previously targeted
- National PR activity reinforces local campaign



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Public Awareness Campaigns - Local

- Select high radon counties
- “Radon week” in each one
- One message: “Take the radon test”
- 6 of 26 counties so far, more to come



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Local Campaign Elements

- Message is from RPII, Govt, local authority, HSE
- Public meetings
- Educating local TDs (members of parliament)
- Local media coverage
- Recruiting local media & editors as supporters
- Extensive concentrated advertising
- Direct mail drop to all households
- Informing local doctors
- On street activity – leaflets
- Follow up PR activity in targeted counties



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Local– What it looks like

Sligo home 13 times over cancer causing gas limit

Radiation dose same as getting 3,000 x-rays a year

A HOUSE has been identified in county Sligo with extremely high concentrations of cancer-causing radon gas.

The home, located in the Ballymote area, had radon levels which were over 13 times the acceptable level.

Nationally, radon is the second biggest cause of lung cancer after smoking and is linked to about 200 lung cancer deaths each year.

The Radiological Protection Institute of Ireland (RPII) advised the homeowner, who had undertaken a radon measurement, that the average level in the house was greater than 2,600 becquerels (unit of measurement of radioactivity) per cubic metre or 13 times the acceptable level of 200.

The radiation dose received by occupants of the house living with this radon concentration is equivalent to receiving nine chest x-rays per day or over 3,000 per year.

Following advice, the homeowner took immediate action to fix the problem by having a radon sump installed beneath the house which prevents high radon levels from accumulating in the house again.

Commenting on the finding, David Morris, Senior Scientist at the RPII, said: "The identification of this house is a further reminder that many people throughout the country are living with dangerous levels of radiation in their homes."

The RPII recently ran an intensive campaign in Sligo urging homeowners to protect themselves. Sligo is a high radon area with an estimated one in every five homes having high levels of the natural occurring gas.

On the RPII's website

(www.rpii.ie anyone can search

for their address on an internet radon map to see whether the house or workplace is in a High Radon Area. They can find out what they need to know about radon - what it is, why it is a problem and how they can have a measurement made. Information is also available on Freefone 1800 300 600.

Measuring for radon and, in the event of a high reading, reducing the levels present are both relatively inexpensive. To test for radon, one detector is placed in bedrooms and a second in a living room for a three-month period. The detectors are small and can be used and returned by post. A test kit costs €95. A full radon measurement, a list of other companies who carry out measurements can be accessed on www.rpii.ie or by calling 1800 300 600.

Ballymote home records high levels of radon gas

By Lauren Martin

A SLIGO house has been identified as having extremely high concentrations of radon gas, prompting calls for homeowners here to measure the levels in their homes and avoid putting the health of loved ones at risk.

The house, located in the Ballymote area, had radon levels which were over 13 times the normal acceptable level.

Radon is the second biggest cause of lung cancer after smoking and is linked to about 200 lung cancer deaths each year. Over the past few weeks the Radiological Protection Institute of Ireland (RPII) has been driving the point home through its intensive campaign in Sligo.

The RPII believes it is very likely that there are more homes here with similarly high radon levels and urges people to test for the gas and reduce their risk of lung cancer.

Senior Scientist at the RPII, David Morris says Sligo is among the worst affected counties in the country when it comes to radon levels.

"We regularly find homes with very high radon concentrations and we know there are more. We would urge people not to ignore this warning and to test for radon in their homes."

The radiation dose, caused by occupants of the Ballymote house living with this radon concentration, is equivalent to receiving nine chest x-rays per day, or over 3,000 per year. Following advice, the homeowner took immediate action. A radon sump was installed beneath the house which prevents high radon levels from accumulating in the house again. The homeowner is currently waiting on a post-

measurement to ensure the levels have been reduced.

The Ministry, a community activist in Ballymote, says the findings indicate that this is a serious issue requiring urgent attention.

"If you had either flu or any other natural disaster that was a public health issue, there would be an emergency plan put in place. In Sligo we have a very high radon risk and there's a lack of public information."

Mr Mulcahy added that he would be writing to the Minister for the Environment to launch a national testing plan for radon introduced for high risk areas such as Sligo.



Take the RADON test

The Facts

- More than 20% of homes measured in Waterford have high levels of the radioactive gas radon
- Radon causes up to 200 lung cancer deaths each year in Ireland
- Radon gas affects us all, but the risk is greater for smokers
- You cannot see, smell or taste radon gas
- A simple test can tell you if your home is safe

Visit www.rpii.ie or
Freefone 1800 300 600



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Public Awareness Campaigns - National

- We highlight exceptional readings
- Regular local and national press coverage of these
- State broadcaster (RTE) has taken up the issue
- Prosecuted employers in the past
- National Radon Forum



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National – What it looks like

Radon in home at dangerous level

Radioactive gas in Sligo house was 13 times above safe limit, institute's tests reveal

By Aine Bonner

TESTS HAVE shown that a house in Sligo had levels of radon gas 13 times higher than the safe limit. Residents living there received radiation exposure equivalent to nine chest X-rays a day.

According to a report published by the Radiological Protection Institute of Ireland (RPII), the house was found to have radon levels of 2,000 becquerels per cubic metre (Bq/m³), 13 times the maximum safe level of 150 Bq/m³.

The institute released details of the test results on Wednesday. It said the levels were found to be "very high" and "well above the safe limit".

Household members were advised to leave the house as soon as possible. The institute also advised that the levels were "very high" and "well above the safe limit".

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Radon gas found in 600 homes nationwide

600 radon cases this year

HIGH levels of cancer-causing radon gas have been discovered in almost 600 homes throughout Ireland so far this year, it emerged yesterday.

The Radiological Protection Institute of Ireland reported that six houses had more than 10 times the acceptable level.

And the occupants of one house had been living with the equivalent of 12 chest X-rays per day.

The institute says radon is the second biggest cause of lung cancer after smoking, and is linked to up to 200 lung cancer deaths each year in Ireland.

And RPII chief executive Ann McGarry said the feared thousands of families nationwide were unaware of the gas — increasing the risk of lung cancer.

"We know that radon levels in Ireland are among the highest in Europe and there are an estimated 91,000 homes out there with high radon levels," Ms McGarry said.

The vast majority of householders have not had their homes tested for radon gas.

Radon is naturally produced in the ground from the uranium present in small quantities in all rocks and soils.

You cannot smell, see or taste it. RPII said 597 of the 4,296 homes measured for radon between January 1 and August 30, were above the "suitable" level.

By John Mitchell

High

Two homes in Tralee, Co Kerry; two in Ballymore, Co Sligo; and one each in Luskenna, Co Clare, and Clonsilla, Co Tipperary, had more than 10 times the acceptable level.

Another 58 houses had very high levels including 15 in Galway, 14 in Sligo, 11 in Kerry, five in Cork and four in Mayo.

Houses in Watford, Carlow, Clare, Tipperary, Kilkenny, Wexford and Wicklow were also affected.

Readings above the acceptable level had been found throughout Ireland, the report said.

The RPII said it was working closely with householders to reduce the radon levels and the risk to their health.

Householders wanting more details of tests can log on to www.rpii.ie or freephone 1800 300 097.

PROTECT YOURSELF WITH A DETECTOR

THERE are two devices for measuring radon as an alpha track detector and a electronic monitor.

The device is put up in a room and is tested annually. It is available for about €10.

Home has radon dose equal to nine X-rays

Treacy Hogan Environment Correspondent

A FAMILY home has been discovered to have 13 times the safe level of lung cancer-causing radon gas.

The occupants of the house in Ballymore, Co Sligo, had been receiving a radiation dose equivalent to nine chest X-rays every day, or more than 3,000 a year.

In a statement yesterday the Radiological Protection Institute of Ireland (RPII) said the householders, who had checked

for radon, took immediate action and had a radon sump installed under the house.

The RPII has been running extensive campaigns in Sligo and Carlow, both high radon counties, urging people to test for the gas which is responsible for as many as 200 lung cancer deaths annually.

David Newton, senior RPII scientist, said: "The identification of this house is a further reminder that many people throughout the country are living with dangerous levels of radiation in their homes."

Mr Newton said that on the institute's website www.rpii.ie, anyone could search for their own address on an interactive radon map to see if their home or workplace was in a high radon area, and find out how to have a measurement taken.

"It is unnecessary for people to put themselves and their families at risk from radon."

"Homeowners need to take the matter seriously and measure radon levels in their homes to ensure that they and their families are not at risk from the hazardous gas."

Mr Newton said that on the institute's website www.rpii.ie, anyone could search for their own address on an interactive radon map to see if their home or workplace was in a high radon area, and find out how to have a measurement taken.

There are 597 properties above the acceptable level of 200 becquerels per cubic metre, the Radiological Protection Institute of Ireland said.

Radon is the second biggest cause of lung cancer after smoking and linked to up to 200 deaths each year.

RPII chief executive Ann McGarry said: "Radon causes lung cancer, and for those with homes which have high levels, measuring is the first step to making your home safe. Home-

owners need to take this matter seriously. It doesn't matter if you live in a new or old house, in a high or low radon risk area, or even if your home already has a radon barrier.

The only way to make sure that you and your family are not at risk is to test.

We know that radon levels in Ireland are among the highest in Europe and there are an estimated 91,000 homes out there with high radon levels.

These figures show clearly that thousands of families throughout the country are unaware of the gas — increasing the risk of lung cancer.

The other 533 results had readings of between 200 and 800 becquerels per cubic metre and were found across the country.

FAMILY'S 3,000 X-RAYS A YEAR

Massive radiation dose from killer gas in house

By Aine Bonner

A FAMILY had been unknowingly subjected to radiation doses the equivalent of 3,000 chest X-Rays per year, it was revealed yesterday.

Cancer-causing radon gas — a radioactive gas found in the ground — was detected at the house in the Ballymore area in Co Sligo.

Radon is the second biggest cause of lung cancer after smoking and is linked to about 200 deaths each year in Ireland.

Yesterday, the Radiological Protection Institute of Ireland (RPII) said it believes there are more homes across the country with high levels.

Radon is a naturally occurring radioactive gas that originates from the decay of uranium in rocks and soils. Like carbon monoxide, it has no smell, colour or taste and can only be detected using special equipment.

Outside, the gas quickly dilutes to harmless concentrations but if it enters a small space like a house, it can accumulate to unsafe levels.

Senior RPII scientist David Newton said: "The recent weeks we have highlighted the radon problem in Sligo and Carlow, which are among the most affected counties in the country."

"We regularly find homes with high radon concentrations and we know there are more."

This gives rise to a radiation dose which may cause lung cancer. The radiation dose for radon in homes is 300 becquerels per cubic metre (Bq/m³).

At the time of the test, the radiation dose was 2,000 Bq/m³, 13 times the safe level of 150 Bq/m³.

When this was discovered, the householders took immediate action to fix the problem by having a radon sump installed beneath the house.

This prevents high radon levels from accumulating in the house again.

Dangerous

Mr Newton said: "The identification of this house is a further reminder that many people are living with dangerous levels of radiation in their homes."

It is unnecessary for people to put themselves and their families at risk from radon.

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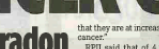
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Michelle O'Kearney, RPII scientist, said: "The identification of this house is a further reminder that many people throughout the country are living with dangerous levels of radiation in their homes."



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Results

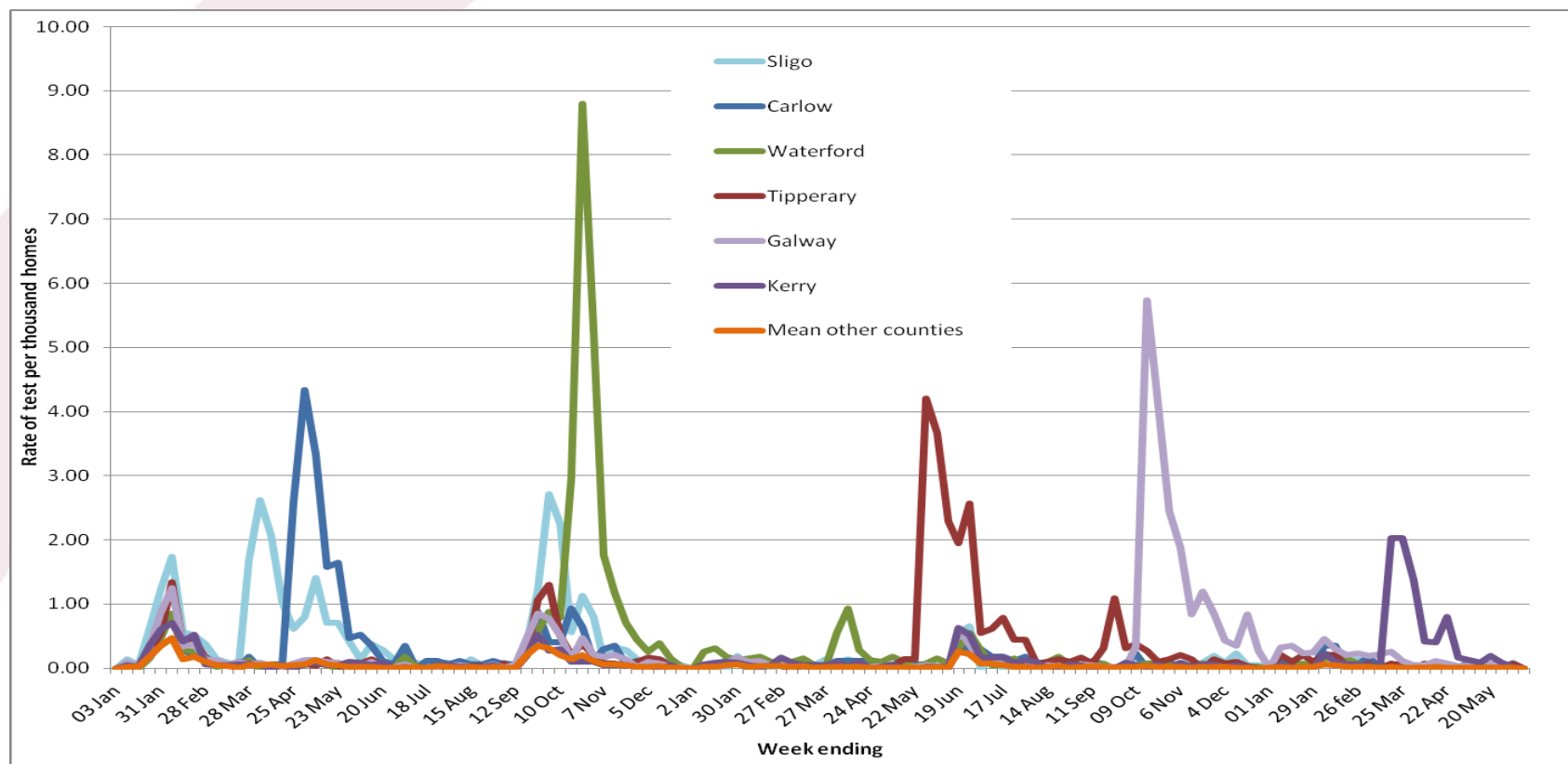
- National testing rate in 2010 four times 2009 figure
- Up to ten years measurements in one month in targeted counties
- The issue is now on the radar of national and local media
- A significant number of national politicians (18 TDs, 6 Senators) and local councillors have been personally educated on the issue by us. Some now champion the issue



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Radon Test Measurement 2010-2012



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Ongoing Limitations

- Awareness doesn't automatically provoke action
- 33% increase in number of houses measured in some areas but just 2% of total housing stock. At this rate it will take 400 years to measure all homes!
- Initial action – measurement – doesn't automatically reduce dose. Just 25% of those with high levels remediate their homes.
- ALARA principle is about reducing dose
- This can only be done through a National Radon Strategy – RPII role is only part of this



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A National Radon Strategy

What is it?

Joined up action from all relevant local and national public bodies to reduce the threat of radon gas.



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National Radon Strategy

Possible Elements

- Educating health professionals
- Changing building regulations
- Writing the issue into health and safety law and practice
- National testing programme of public and private premises
- Research

- New conveyancing laws
- Education of media
- Public information
- Grants for remediation of premises
- Schools – education and testing



Steps to a National Radon Strategy

1. Recognition and agreement that there is a problem
2. Definition of the problem and its scale
3. Political commitment to reducing radon dose
4. Report and draft strategy from Inter-Agency Group
5. Public consultation on draft strategy
6. Government approval of and buy-in to strategy
7. Implementation



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Don't wait for a national strategy!

- ▶ Raise public awareness
- ▶ Test homes
- ▶ Inform decision-makers and relevant State agencies

While seeking a national strategy, implement your part of it now!



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Discussion



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