

Environmental **Radon** Newsletter

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A Change of Approach

The government has decided on a change of approach to the issue of radon in houses, putting more emphasis on local action and on effective remediation of radon problems. Below Andrew Macpherson of the Department of the Environment, Transport and the Regions

explains the new strategy. On page 4 of this issue John Hague of Derbyshire Dales District Council gives details of the pilot project in his area, and we hope to have reports on the pilot projects in the other two pilot areas (Cherwell and Mendip) in future editions of the Newsletter.

Radon Pilot Studies

Andrew Macpherson, Department of the Environment, Transport and the Regions

In early 1998 the final batch of invitations for 'free' radon measurements were sent to households in those areas of England with a greater than 5% probability of being above the Action Level and that had not previously received an invitation. This completed the Government's two year programme to ensure that all the households in the most radon-affected parts of the country had received an invitation to have a free measurement. It also marked the end of the large, centrally-organised measurement campaigns and the beginning of a new, locally-directed approach with an emphasis on encouraging householders to carry out remedial work.

Central Government Departments, in particular Department of the Environment, Transport and the Regions (DETR) and Department of Health, remain just as committed to the radon programme but in the future will be taking a supporting role, assisting local initiatives. The emphasis has shifted to encouraging remediation not only because every home in the most affected parts of the country has now received an invitation to have a free radon measurement,

but also because research continues to show that only about 10% of householders that know their homes are above the Action Level go on to carry out any remedial work.

In order to facilitate this change of approach, to establish its overall effectiveness, and to develop good practice guidance for use by others in future years, DETR has invited three local authorities - Derbyshire Dales, Cherwell and Mendip District Councils - to be 'Pilot Study Areas' during this financial year. Each Authority, jointly with DETR, has drawn up an Action Plan identifying the activities that it wishes to pursue in its area, and the support to be provided by Central Government.

The Government has engaged consultants, Community Economic Development Associates (CEDA), to monitor and evaluate the three pilot studies.

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An Invisible Threat?

Clare Flood, Aberdeenshire Council

Part of Aberdeenshire has been classified by NRPB as a radon affected area, but it appears that few houses here have been tested or had remediation works undertaken where necessary. A survey has therefore been carried out to try to establish the reasons for this apparent apathy, and perhaps to demonstrate that people living in a radon affected area are unaware of the risks to health.

The study compared attitudes in two postcode sectors, one in the radon affected area, and one (designated here the unaffected area) where few properties have been found to have radon above the Action Level of 200 Bq m⁻³. One hundred houses were chosen at random from each area.

Questionnaires were sent out to householders in May 1998. People in both areas were asked for demographic details, information about sources of radon, who they would contact to test for radon, health effects associated with radon and levels of risk. In addition, people in the radon affected area were asked about the age of their house, construction details, source of water supply, radon testing and radon remediation. After allowing 4 weeks for replies, the data was coded and the results statistically analysed.

The response rate was 53% in the unaffected area and 37% in the affected area. The majority of respondents in both areas lived in detached, owner occupied properties. Local knowledge indicated that around a third of the householders in the radon affected area were tenants in tied rural properties, and the results showed that the majority of these had not responded.

Eight-three percent of respondents in the unaffected area and 97% in

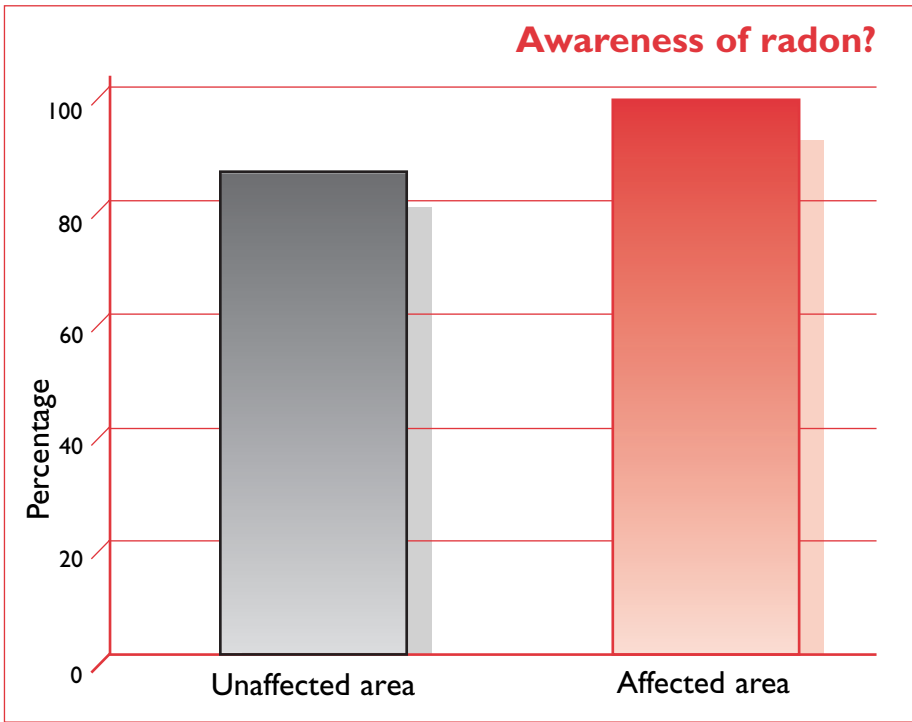
the affected area had heard about radon. The higher percentage in the affected area probably reflects approaches made to householders in this area by NRPB, the Local Authority and Aberdeen University about radon.

There was no consensus of opinion about who would be expected to carry out radon testing, with 52% in the unaffected area and 43% in the affected area opting for the Local Authority and 25% in the unaffected area and 19% in the affected area correctly choosing the NRPB.

Ninety-three percent and 97% respectively knew that radon was a gas and 47% and 48% replied that radon could be found in granite and other rocks. Surprisingly few respondents (22% and 21%) said that radon could be found in buildings, suggesting that while they know about radon they do not think that the risk directly affects them.

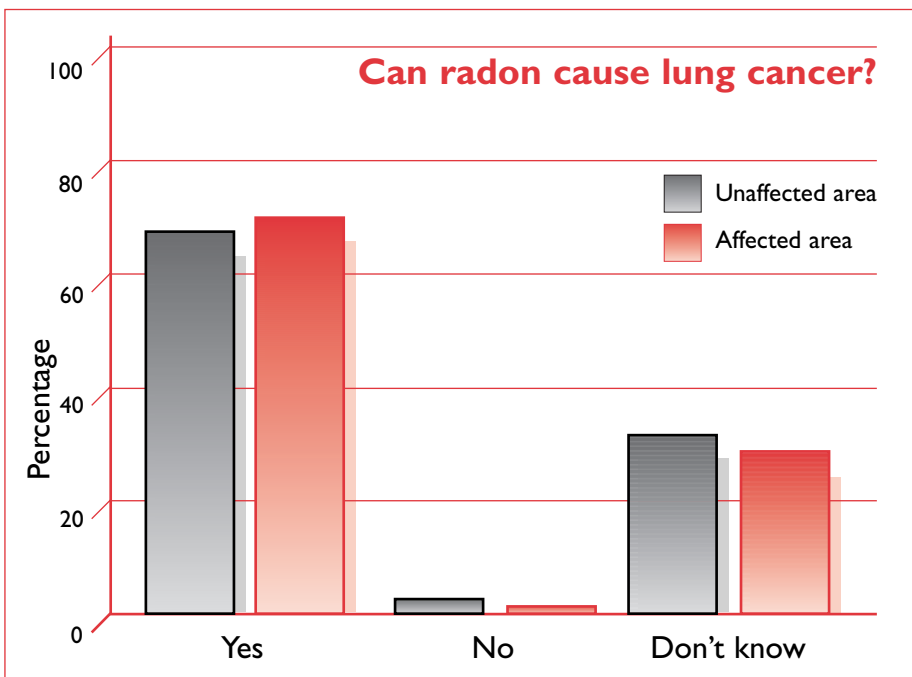
In the unaffected area, 67% of respondents agreed that living with high levels of radon could increase the risk of developing lung cancer, and in the affected area 70% agreed with the statement. If a figure of around 2500 is accepted as the number of radon induced lung cancers per year in the UK then the majority of respondents in the affected area underestimated the number of lung cancers which could be attributed to radon.

The second section of the questionnaire was only sent to houses in the radon affected area. The targeted householders were asked about house features which may affect radon levels. These included construction material, floor type, age of construction and type of water supply. A third of respondents were living in properties constructed after 1971 and presumably these



The main study conclusions were as follows:

- People living in Aberdeenshire are generally aware of radon and its health effects.
- People in the radon affected area may underestimate the level of risk.
- The relatively poor response rate from the affected area may reflect public apathy towards radon, as has been found in other UK studies.
- As the area within Aberdeenshire which has been classified as radon affected may have a high proportion of tied rural properties, specific targeting of landlords should be carried out to increase the uptake of radon testing.



The ethics of the radon problem are difficult. Clearly it is the intention of all agencies involved to persuade the public to carry out remedial works where necessary, but until recently some people have regarded the domestic epidemiological evidence as unclear. It has been difficult to know whether it is ethical to use a message of fear to galvanise the public into taking action or to hope that they will act in a rational manner on the information given.

This and other studies have shown that communicating information is not in itself enough to elicit an appropriate response to radon. Perhaps it is no longer sufficient merely to provide information about radon and leave the decision up to the individual.

properties would have solum treatment which substantially reduces radon levels. The majority of respondents (61%), also had suspended timber flooring. Only 26% of respondents lived in houses constructed of granite and 86% had mains water supplies (private water supplies sometimes have high levels of dissolved radon).

Seventy percent of respondents had not had radon testing carried out, but over half of these were considering testing. Reasons

given for not testing for radon were varied and included the following: too expensive to test, too old to bother, living in a flat, did not think that radon is a health hazard and too expensive to carry out remedial works if levels are found to be high.

Eleven people in the affected area who completed questionnaires had had radon testing carried out, but only one had found levels above 200 Bq m⁻³ and this person had decided not to have levels reduced because of the expense.

As recent research has now confirmed that there is clearly a risk associated with radon at levels found in homes, it is time to move from the role of health education to one of health protection. Public health implications should now be taken into account and serious consideration given to the introduction of legislation which will reduce the risk of contracting lung cancer as a result of living in homes with high levels of radon.

Radon in the Dales - Pilot Study

John Hague, Derbyshire Dales District Council

The Council has been aware since 1986 that many houses in the district are affected by high levels of radon. Since then a policy of publicising and explaining the risk from radon has been pursued. This has encouraged measurements in over 12,000 homes, with 1,750 found to be above the Action Level. NRPB estimates that, of those properties yet to be tested, a further 2,400 will also be found to be above the Action Level.

In February 1996 the government ceased to offer a free 'on demand' survey to householders, and pursued a new policy of targeting homes in areas where it was estimated that more than 5% of them were above the Action Level. Over the next year 10,100 householders in the Dales received a letter offering a free test. This offer was accepted by 2,200, but the Council was very concerned that 7,900 did not bother to reply. In addition, there were indications that most people whose homes had tested positive had not gone on to remedy the problem.

It was felt that one reason why people had not taken advantage of the free test or carried out remedial work was the remoteness of NRPB and BRE to the Dales area. To try to combat this the Council sought to gain pilot project status from the Government, to implement a more supportive programme of radon awareness.

The Pilot Project

The Department of the Environment, Transport and the Regions (DETR), invited the Derbyshire Dales District Council to be one of three local authority pilot areas, to try out new ways of supporting householders with regard to the radon problem.

Proposals were put forward aimed at enabling Council Officers to work more closely with residents to ensure that they receive the most appropriate support, help and advice. The approach adopted also differed from previous campaigns in that wards considered most at risk were targeted, rather than using a blanket approach. The proposals gained Ministerial approval in September 1998.

Key Groups Involved in the Pilot

As a first step the Council declared October a Radon Awareness Month, and targeted information to three groups of people to try to gain their help and support:

- Agencies and organisations such as GPs, health professionals, builders, advice agencies, building societies and banks, solicitors and Care and Repair

agencies. Seminars and workshops have taken place to increase awareness of the problem in these groups.

- The 1,750 householders in the Dales who have previously been informed that their radon measurement is above the Action Level

These householders have received a letter from NRPB with a Council information card showing that the project is Council led. The letter offered personal visits to give the householders practical local advice on how to reduce the level. An excellent response, far greater than expected, is being received emphasising the 'local' involvement.

- Householders who live in high risk areas, who have been offered a free test in the past but have not responded. These householders have been offered a further opportunity of a free test.

Evaluation

It was decided to monitor the programme to ascertain how people respond to the campaign. In particular, the effects of various disincentives to remedial action are being investigated:

- **Age** - there is a high percentage of older residents in the Dales with likely resistance to having work carried out because of the expectation of disruption.
- **Income** - low incomes and high perceived cost of remedial work are identified as major barriers.
- **Apathy** - there are known to be high levels of apathy to the issue of radon amongst some householders.
- **Tenure** - council houses are being identified separately and dealt with in conjunction with the Property Services Department.

An important element of the Dales pilot approach is to introduce a more customised, personalised approach to householders. Socio-economic data relating to age, tenure and income patterns, etc. have enabled the Council, in conjunction with DETR and NRPB, to offer appropriate assistance to specific groups. For instance, Care and Repair staff have been introduced to advise elderly owner-occupiers.

At the time of writing the project has only just begun in the Dales, but it is already clear that the local Council leadership of the project (assisted by NRPB, BRE and DETR) has led residents to respond positively by contacting Council Officers for specific advice in relation to their own property.

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future issues should be sent to Jon Miles at NRPB (see address on page 2). The views expressed in the contributions here are not necessarily those of the Chartered Institute of Environmental Health, the Royal Environmental Health Institute for Scotland or the National Radiological Protection Board.