PUBLIC HEALTH
NEWS

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Contact: John Stobierski
or
Ruth Taylor
727-0049

Massachusetts Department of Public Health, 150 Tremont Street, Boston, MA 02111, Commissioner Deborah Prothrow-Stith, M.D.

MASS. HEALTH DEPARTMENT ADVISES RADON TESTING, RELEASES STUDY

The Massachusetts Department of Public Health today encouraged Massachusetts residents to have their homes screened for the presence of radon. Health Commissioner Deborah Prothrow-Stith said her agency was prepared to step up its efforts to inform the public about the risks of radon and to help identify the one-percent of Massachusetts homes that may contain dangerous levels of the radioactive gas.

The DPH today released results of a survey it conducted of 1,659 randomly selected, single family homes across Massachusetts. The study indicated there was a sufficiently high level of radon in 24% of the homes to warrant follow-up testing, and 1% of the homes had radon levels that warranted prompt correction.

The study showed fewer Massachusetts homes had potential radon problems than most other states that participated in an EPA-coordinated series of radon surveys.

In Massachusetts, homes in Worcester and Essex counties were more likely to have elevated radon levels than those in other parts ofthe state.

Deputy Health Commissioenr Van Dunn, M.D., recommended radon screening for all single family homes, townhouses and row homes, basement and first and second floor apartments, and mobile homes

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and mailed to a testing laboratory to be read. The laboratory reading is included in the purchase price of the cannister, usually around $25.00

Radon is measured in picocuries of radiation per liter of air. When the initial screening indicates radon greater than four picocuries per liter, DPH recommends a more ~~prices~~ Precise follow-up test. 24% of the homes in the health department's study had radon levels above 4pCi/l. When a home has a radon level greater the 20 pCi/l, the Department of Public Health should be notified by the homeowner. DPH will then send an engineer to the home to help isolate the source of the radon problem and to recommend corrective action. Only 1% of the homes t tested had a level higher than 20 pCi/l.

Radon is the result of uranium decaying beneath the earth's surface. It can leak into a home through Crack in the foundation, and collects when the home is tightly sealed and there is little ventilation. A homeowner can usually correct radon problem by sealing and caulking in the basement and providing proper ventilation.

Radon is an odorless, colorless, radioactive gas. Its presence can only be detected through testing. The Environmental Protection Agency estimates between 5,000 and 20,000 people die of lung cancer each year nationally due to radon exposure, making it the second leading cause of lung cancer after smoking.

United States
Environmental Protection
Agency
Region I

Office of
Public Affairs
John F. Kennedy Federal Building
Boston, Massachusetts 02203

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EPA Environmental News

September 12, 1988 **For more information call** 617/565-3222 Tom D'Avanzo, toxics assessmen

BOSTON---The U. S. Environmental Protection Agency and the U. S. Public Health Service today announced a national advisory urging the testing of most homes in the country for radon.

EPA Regional Administrator Michael R. Deland noted that next to smoking, radon is the second leading contributor to lung cancer, causing as many as 20,000 lung cancer deaths each year.

The advisory was issued in conjunction with EPA's release today of the most recent survey results on indoor radon in seven states, including Massachusetts. The agency found that nearly one in three homes in these seven states had screening levels over four picocuries per liter (pCi/L), the agency's guidance level. (A picocurie, or one-trillionth of a curie, is a common measurement of radiation.)

In Massachusetts, one in four of the homes tested had radon levels greater than the agency's action level of four pCi/L. The highest levels in Massachusetts were found in Middlesex, Essex, and Worcester counties, although radon could be a problem in almost any area. EPA recommends that homes with greater than four pCi/L be retested and that homeowners take action to reduce indoor radon if the levels are confirmed to be high.

A total of 1,659 homes in Massachusetts were tested in this joint Massachusetts Department of Public Health/EPA survey. A random sample of homes was selected so that the results would be representative of levels throughout the state.

Other states surveyed were Arizona, Indiana, Minnesota, Missouri, North Dakota, and Pennsylvania. The highest levels of radon were found in an area extending from Minnesota to North Dakota. More than 45 percent of the houses tested in Minnesota and 60 percent tested in North Dakota have screening levels over four pCi/L.

(more)

EPA also announced that two New England states -- Maine and Vermont -- will be surveyed this winter. Other states to be surveyed are Alaska, Iowa, New Mexico, Ohio, and West Virginia. State health or environmental agencies conducted the surveys last winter. The surveys are done during the winter months when houses are closed to obtain measurements of the highest detectable radon levels.

The surveys measured a total of 11,000 homes over the seven states. While only five readings exceeded 100 pCi/L, a significant percentage of screening measurements exceeded 20 pCi/L, the level at which EPA recommends immediate follow-up. EPA estimates that more than 200,000 homes in these states will have levels greater than 20 pCi/L, a level that exceeds current health-protection standards for uranium miners.

The data from this year's study, when added to information gathered in last year's 10-state survey, allow EPA to predict that more than three million houses in the 17 states surveyed will have screening levels greater than four pCi/L. The states surveyed last year were Connecticut, Rhode Island, Alabama, Colorado, Kansas, Kentucky, Michigan, Tennessee, Wisconsin, and Wyoming.

EPA recommends that everyone living in detached houses (including trailer homes with permanent foundations) should test for radon. Residents living in townhouses or rowhouses should test as well as people living in basement, first- or second-floor apartments.

Having a home tested involves a simple procedure that can be done by the homeowner and can cost as little as $10-$25. Houses with elevated radon levels can be fixed easily for about $500 to $1,000. Homeowners should contact their appropriate state agencies for more information on radon mitigation.

Radon is an invisible, odorless radioactive gas produced by the decay of uranium in rock and soil. Radon decays into radioactive particles, which, if inhaled, may cause damage to lung tissues, increasing the risk of lung cancer.

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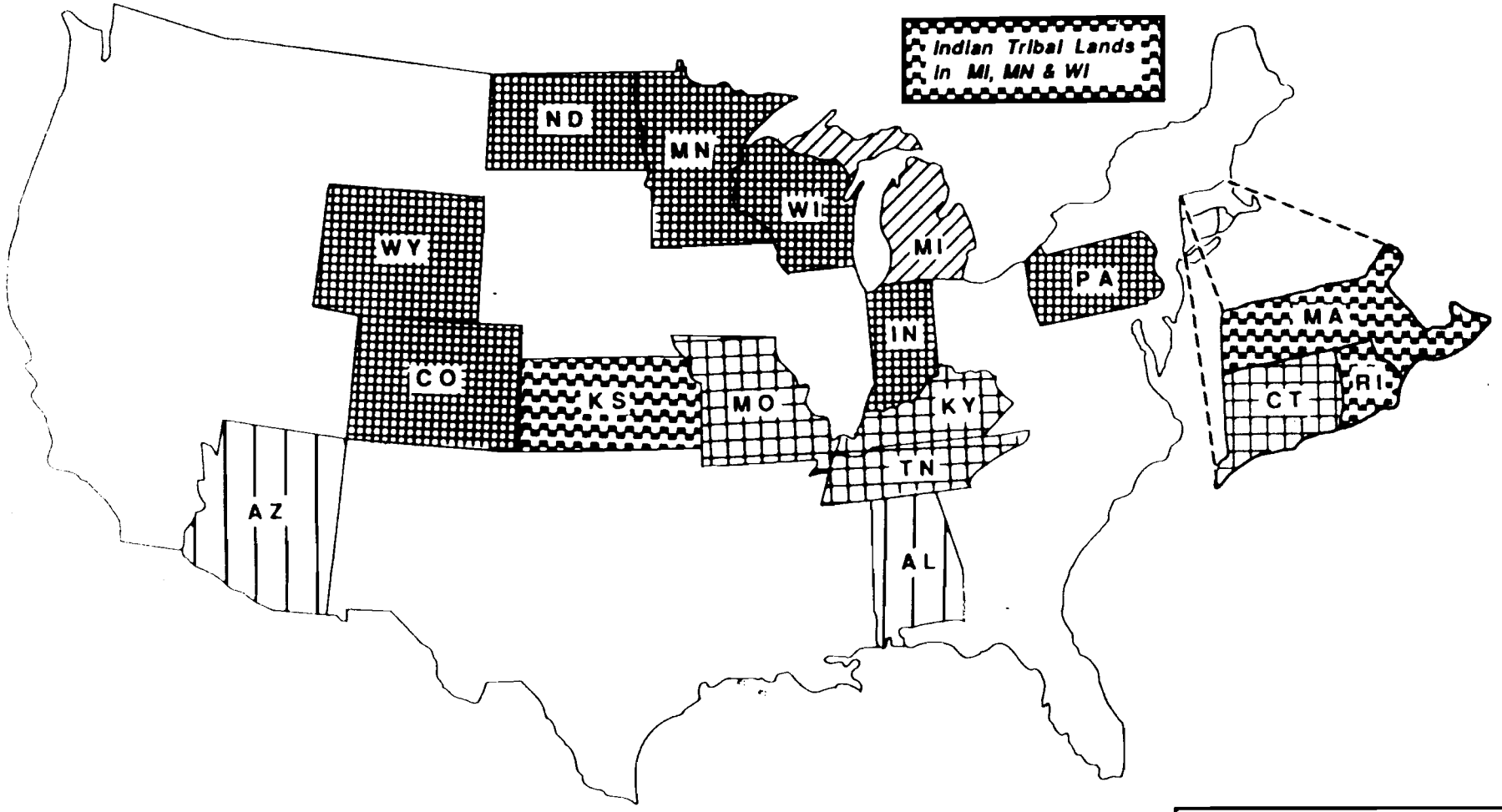
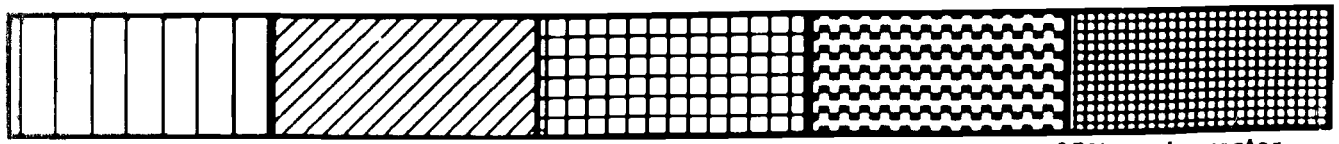
State radon agency numbers:

Connecticut	203/566-3122	New Hampshire	603/271-4674
Maine	207/289-3826	Rhode Island	401/277-2438
Massachusetts	617/727-6214	Vermont	802/828-2886
	413/586-7525		

Cumulative
State/EPA Indoor Radon Survey Results



Estimated Percent of Houses With Screening Levels Greater Than or Equal to 4 pCi/L



Note: These results represent screening measurements and should not be used to estimate annual averages or health risks

* These values may not be representative of all homes in all states.

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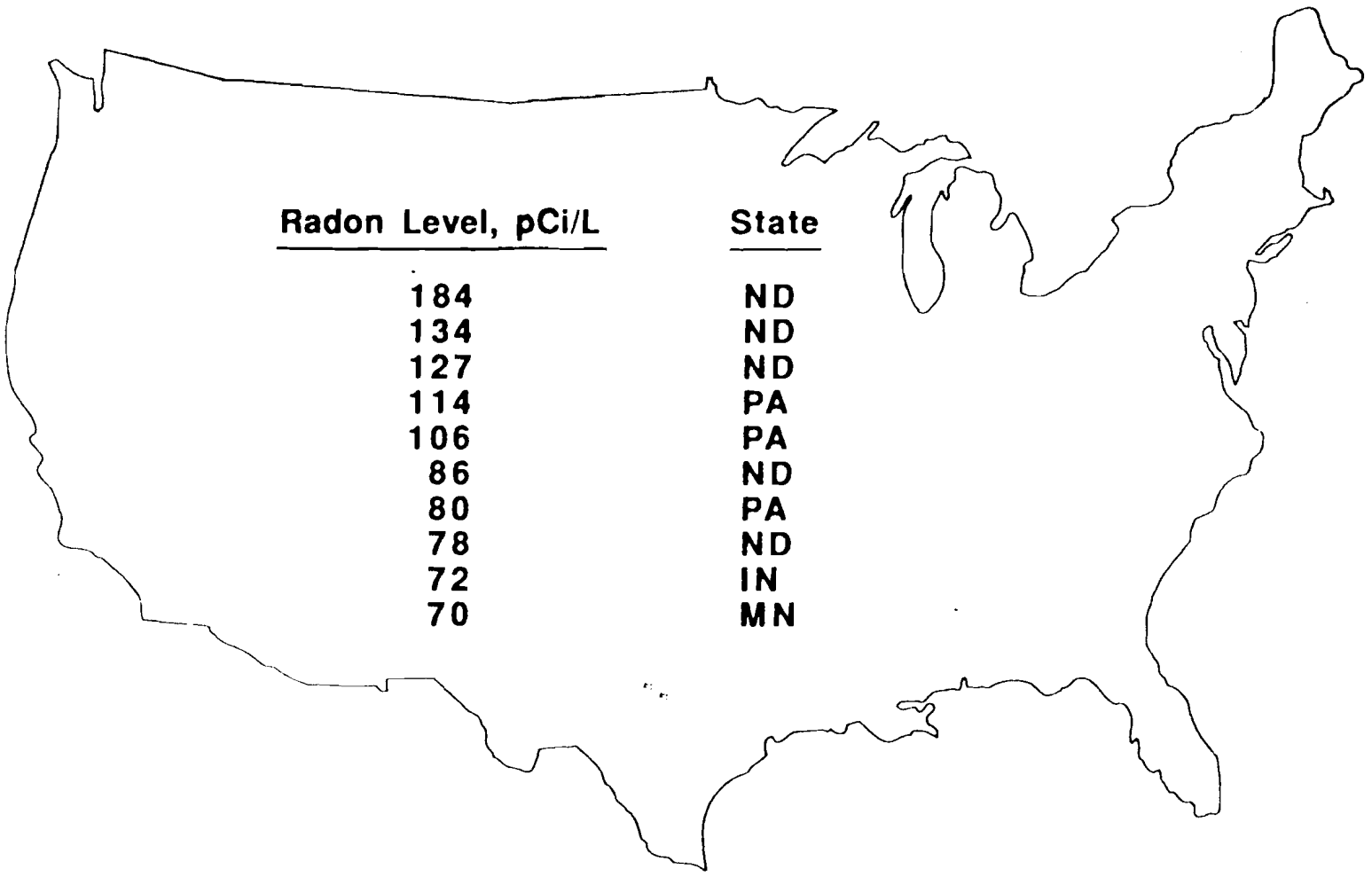
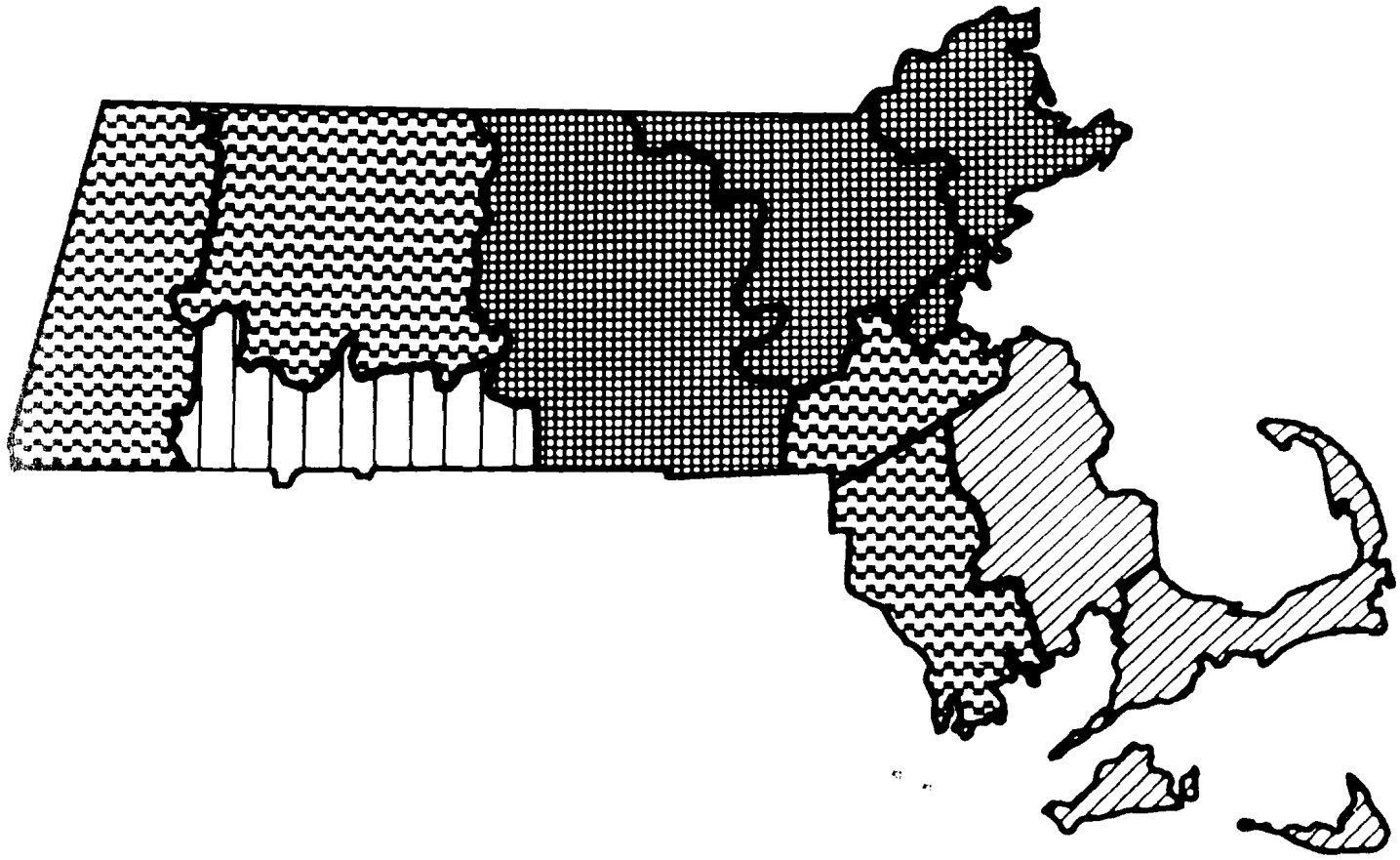
Ten Highest Radon Measurements in the 1988 Surveys



Radon Level, pCi/L	State
184	ND
134	ND
127	ND
114	PA
106	PA
86	ND
80	PA
78	ND
72	IN
70	MN

Massachusetts Radon Results by Region



County	Percent
Worcester	38
Essex	36
Middlesex	26
Bristol	23
Franklin, Hampshire	22
Berkshire	21
Norfolk	21
Barnstable, Dukes	15
Plymouth	12
Hampden	11
Suffolk	5

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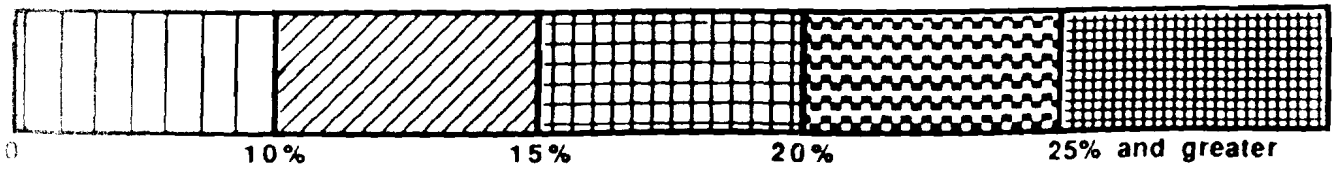

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Massachusetts

Distribution of Indoor Radon Screening Measurements

Radon Levels, pCi/L	Percent of Houses with These Levels*
< 4	76
4 - 20	23
> 20	1

Average Level	3.4
Number of Houses Measured	1659

* There Is A 95% Certainty That These Values Represent Homes In Massachusetts Within 3 Percentage Points