MEDICAL SOCIETY OF THE STATE OF NEW YORK

Resolution 2014-154

Introduced by: Sheila Bushkin-Bedient, MD, MPH, Saratoga County
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               As Individuals

Subject: Protecting Public Health from Elevated Radon Exposure

Referred to: Reference Committee on Public Health and Education

Whereas, Radon and its decay products (known as “progeny”) are radioactive materials which
are known to be the number one cause of primary lung cancer in non-smokers; and

Whereas, Inhalational exposure to radon and its radioactive progeny is the second leading
cause of primary lung cancer among smokers (after tobacco); and

Whereas, Radon and its progeny work synergistically with tobacco products to increase the
likelihood of developing lung cancer among smokers and second-hand tobacco-exposed
individuals; and

Whereas, Lung cancer is the leading cause of cancer mortality in both men and women in the
United States; and

Whereas, The US Environmental Protection Agency estimates that there are approximately
21,000 deaths per year due to human exposure to radon and its radioactive decay
products; and

Whereas, There is no safe exposure level of radon for public health protection; and

Whereas, Radon, which originates naturally in bedrock and shale, is inextricably combined with
other natural gases sequestered into these subterranean reserves, and is therefore extracted in
combination with natural gas; and

Whereas, There is no current technology to remove or separate radon and its progeny from
natural gas or to inactivate it following emission; and

Whereas, Marcellus Shale gas is higher in radium, and therefore produces more radon, a
radioactive decay product of radium, than gas from the western and southern states; and

Whereas, when radon-laced natural gas is delivered to residential and industrial consumers in
New York State from distant sources (e.g. Texas, Louisiana, approximately 1800 miles/7.5
days) through long pipeline networks, there is a longer transit time which allows for a greater
degree of natural decay of radon and its radioactive progeny; and

Whereas, due to geographic proximity of New York State to the Marcellus Shale region, there is
significantly shorter transit time through local regional pipeline networks transporting radon-
laced natural gas to NYS natural gas consumers (approximately 400 miles/1.5 days) thus
resulting in the delivery of natural gas containing much higher concentrations of radon; and
Whereas, the delivery of higher concentrations of radon and radioactive breakdown products will expose many more New York citizens to radioactive exposure, including especially vulnerable groups such as children and chronically ill persons; therefore be it

RESOLVED, That the Medical Society of the State of New York support policy that limits exposure to radon and its decay products which are known to cause primary lung cancer in non-smokers and to potentiate the likelihood of lung cancer in smokers; and be it further

RESOLVED, That the Medical Society of the State of New York support legislation that protects the public health by ensuring that New York State is committed to reducing sources of excess radon emissions, and monitoring radon gas exposure levels to confirm that these radon gas levels do not exceed the recommended levels set by the Environmental Protection Agency.

References:

1. Lung Cancer Fact Sheet; American Lung Association
   accessed: 2/01/2014

2. Radon and Cancer Fact Sheet; National Cancer Institute
   http://www.cancer.gov/cancertopics/factsheet/Risk/radon#ques4
   accessed 2/01/2014

   http://www.hematologyandoncology.net/files/2013/05/ho0312_sethi1.pdf
   accessed: 2/01/2014


5. Lung Cancer Statistics; CDC (page last updated, October 23, 2013)
   accessed: 2/01/2014

   http://www.epa.gov/radon/pubs/citguide.html


8. Resnikoff, M, Radon in Natural Gas from Marcellus Shale, Executive Summary;(2012), Radioactive Waste Management Associates; pp 1-14
   http://www.nirs.org/radiation/radonmarcellus.pdf
   accessed 2/12/2014