MASSACHUSETTS MEDICAL SOCIETY HOUSE OF DELEGATES

Item #:	8
Code:	Resolution A-17 A-105
Title:	Protecting Public Health from Natural Gas Infrastructure in Massachusetts
Sponsors:	Brita Lundberg, MD Krupa Patel, MD Susan Racine, MD
Referred to:	Reference Committee A Kevin O'Callaghan, MD, Chair

Whereas, MMS strategic priorities for 2016–2017 include a heightened focus on population health; and

Whereas, The MMS currently has no policy on the human health impacts of natural gas infrastructure (NGI), which includes pipelines, compressor stations, metering and regulating stations, liquefied natural gas storage facilities, and gas-fired power plants; and

Whereas, While it is widely recognized that natural gas extraction causes health problems due to air and water pollution where the drilling is done, many physicians are not cognizant of the impacts on human health and safety from the toxins and carcinogens elaborated by NGI; and

Whereas, These toxins and carcinogens include hazardous air pollutants (notably benzene, toluene, and hexane),[1] particulate matter (PM 2.5),[2] radioactive elements (including radon and its decay products, radioactive lead, polonium, and bismuth),[3] and heavy metals (lead, chromium, and mercury)[3] that are either present in the fluid used to extract the natural gas or entrained from the earth's crust during the process of extraction and present in the natural gas as it travels through the NGI; and

Whereas, NGI poses a potential health risk to humans because of the pollutants it elaborates and the diseases it can potentially cause, including cancer, respiratory illness, cardiac and neurologic disease, birth defects, and miscarriage[4,5,6,7]; and

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[1] Burger JL, Lovestead TM, Bruno TJ . Composition of the C6+ Fraction of Natural Gas Energy Fuels 2016;30:2119-2126.

[2] Compressor stations emissions of particulate matter, radon: www.spectraenergy.com/content/documents/SE/Operations/US_NatGas_Ops/Projects-US/AtlanticBridge/RR9_Atlantic-Bridge_Vol-II-A_OCT-2015_FINAL.pdf

[3] EPA report: Hazardous waste produced by M&R station in New Bedford, MA; https://oaspub.epa.gov/enviro/rcrainfoquery_3.facility_information?pgm_sys_id=MAR00000993

[4] Lee B-J, Kim B, Lee K. Air Pollution Exposure and Cardiovascular Disease. Toxicological Research. 2014;30(2):71-75. doi:10.5487/TR.2014.30.2.071.

[5] Hays J, Shonkoff SBC. Toward an Understanding of the Environmental and Public Health Impacts of Unconventional Natural Gas Development: A Categorical Assessment of the Peer-Reviewed Scientific Literature, 2009-2015. PLoS ONE 2016 11(4): e0154164. doi:10.1371/journal.pone.0154164

[6] Southwest Pennsylvania Environmental Health Project 2015: Summary of Minisink Monitoring results. www.environmentalhealthproject.org/resources/presentations

[7] Stacy SL, Brink LL, Larkin JC, Sadovsky Y, Goldstein BD, Pitt BR, et al. Perinatal outcomes and unconventional natural gas operations in Southwest Pennsylvania. PloS One. 2015;10(6):e0126425.

Whereas, The majority of the neurologic and mucocutaneous sequelae of NGI such as severe headache, memory loss, nosebleeds, and burning eyes/rashes disproportionately affect young children and are suffered most by those residing within a mile of compressor stations[6]; however, leaks in the NGI, particularly transmission pipelines, render the risks from the carcinogens and toxins it elaborates universal[8]; and

Whereas, NGI releases significant amounts of methane, nitrogen oxides and sulfur dioxide, all of which are known drivers of environmental disruption[9]; and

Whereas, Accidents at NGI — including leaks, explosions, and water contamination — are common, and have increased five-fold between 2000 and 2010[10]; and

Whereas, A significant expansion of NGI has been proposed in Massachusetts, with compressor stations envisioned for the towns of Weymouth and Rehoboth, and a vast LNG facility on a wetlands in Acushnet that has been called by the Massachusetts Department of Energy and Environmental Affairs "one of the largest wetlands expansions in the history of the Commonwealth of Massachusetts";[11] and

Whereas, AMA Policy states:

AMA Position on Protecting Public Health from Natural Gas Infrastructure H-135.930

> Our AMA recognizes the potential impact on human health associated with natural gas infrastructure and supports legislation that would require a comprehensive Health Impact Assessment regarding the health risks that may be associated with natural gas pipelines[12].

; and

Whereas, The Medical Society of the State of New York adopted the following policy in 2015:

> That the Medical Society of the State of New York (MSSNY) recognizes the potential impact on human health and the environment associated with natural gas infrastructure.

That all levels of government should urge the implementation of a comprehensive Health Impact Assessment (HIA) in order to assess the potential adverse health risks that are associated with natural gas infrastructure, including but not limited to pipelines, compressor stations, and other technologies. This would also include natural gas storage facilities and liquefied natural gas (LNG) offshore, and deep water export terminals[13].

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[8] Howarth RW, Shindell D, Santoro R, Ingraffea A, Phillips N, and Townsend-Small A. 2012. Methane emissions from natural gas systems. Background paper prepared for the National Climate Assessment. Reference number 2011-0003.

[9] Tollefson J. Methane leaks erode green credentials of natural gas. Nature 2013. 493,doi:10.1038/493012a.

[10] U.S. Pipeline and Hazardous Materials Safety Administration

[11] Memorandum, Massachusetts DEPA, 5/31/16

[12] American Medical Association (2015). H-135.930 Protecting public health from natural gas infrastructure, Resolution 519, A-15. Retrieved from https://searchpf.ama-assn.org/SearchML/searchDetails.action?uri=%2FAMADoc%2FHOD.xml-0-301.xml

[13] NY Medical Society resolution: http://concernedhealthny.org/wp-content/uploads/2015/05/MSSNY-Resolution-2015-2.pdf

Whereas, While MMS members are diverse in their views of the value of natural gas infrastructure expansions, they are unanimous in their commitment to promote and protect the public health, welfare, and safety of the residents of the Commonwealth; therefore, be it

1. **RESOLVED, That the MMS adopt the following adapted AMA policy:**

   That the MMS recognizes the potential impact on human health associated with natural gas infrastructure. (*HP*)

; and, be it further

2. **RESOLVED, That the MMS advocate to appropriate agencies and the Massachusetts state legislature to require ongoing independent Comprehensive Health Impact Assessments to assess the human health risks of all existing, new or expanded natural gas infrastructure in Massachusetts. *(D)***

Fiscal Note: (Out-of-Pocket Expenses)	No Significant Impact
FTE: (Staff Effort to Complete Project)	Existing Staff