EMERGENCY MEDICINE RESIDENTS ASSOCIATION

RESOLUTION: F-17-1

Climate change, its impact on patient health, and implications for Emergency Medicine

Sabiha Barot, MD and David Cheever, MD

Whereas there is widespread scientific consensus that the world's climate is changing, with 2016 being the warmest year in history, and future projections indicating further acceleration in these changes given exponentially rising CO2 levels; and

Whereas climate change affects human health in a variety of ways, including extreme weather events, shifting vector-borne epidemics, rising sea levels, resource scarcity, population displacement, and contaminants in air, water, and soil; and

Whereas such change has already been shown to increase the incidence of many conditions seen in the ED, including exacerbations of respiratory, cardiovascular, and renal disease; mental health emergencies; shifting infectious disease burden; injuries from extreme weather; and trauma from interpersonal violence; and

Whereas recent disaster events from Hurricane Katrina and Superstorm Sandy to the unfolding aftermath of Irma and Maria are revealing that the patients who rely disproportionately on the ED – those at the extremes of age, the socially marginalized, the economically disadvantaged, and patients with multiple comorbidities – are most vulnerable to the evolving effects of climate change; and

Whereas EM providers will be serving at the front lines of catastrophic extreme weather events, newly emerging and/or spreading infectious diseases, and population displacement associated with a changing climate - by virtue of our craft and role in managing the nation's emergency care infrastructure and disaster preparedness; and

Whereas, currently there exists little guidance for preparing EM providers to adequately respond to global climate change nor required training to withstand the impact of climate change on patient health and health risk management principles; therefore be it

RESOLVED, that EMRA:

- 1) Craft a report addressing the risk of global climate change on patient health and its impact on the future of emergency medicine.
- 2) Disseminate materials to residents, based upon the report's findings (above), in order to guide future training, advocacy and patient care.

References:

Stott PA, Stone DA, Allen MR. Human contribution to the European heatwave of 2003. Nature 2004;432:610–4.

Watts N, Adger WN, Agnolucci P, et al. Health and climate change: policy responses to protect public health. Lancet 2015;386:1861–914.

NOAA. Global Climate Report 2016. https://www.ncdc.noaa.gov/sotc/global/201607 (accessed 26 June 2017).

NOAA. Trends in Atmospheric Carbon Dioxide 2017.\ https://www.esrl.noaa.gov/gmd/ccgg/trends/index.html (accessed 26 June 2017).

Provisional World Meterological Organization Statement on the Status of the global Climate in 2016. https://public.wmo.int/en/media/press-release/provisional-wmo-statement- status-of- global-climate- 2016 (accessed 26 June 2017).

National Hurricaine Center Database. http://www.nhc.noaa.gov/outreach/history (accessed 26 June 2017).

Intergovernmental Panel on Climate Change, 5th Assessment Report. Working Group 2. http://www.ipcc.ch/report/ar5/wg2 (accessed 26 June 2017).

Beard C, Garafalo J, Gage K. Climate and its impacts of vector-borne and zoonotic diseases. In: Luber G,Lemery J, eds. Global climate change and human health: from science to to practice. New Jersy: Jossey Bass, 2015:221–66.

Haines A, Kovats RS, Campbell-Lendrum D, Corvalan CO. Climate change and human health: impacts, vulnerability and public health. Public Health. 2006;120:585–96.

Hess JJ, Heilpern KL, Davis TE, et al. Climate change and emergency medicine: impacts and opportunities. Acad Emerg Med 2009;16:782–94.

Lemery, J. Peering through the hourglass. Emerg Med J. 2017 May;34(5):272-274.

Glaser J, Lemery J, Rajagopalan B, et al. Climate change and the emergent epidemic of CKD from heat stress in rural communities: the case for heat stress nephropathy. Clin J Am Soc Nephrol 2016;11:1472–83.

Pal JS, Eltahir EAB. Future temperature in southwest Asia projected to exceed a threshold for human adaptability. Nat Clim Change 2015;6:197–200.

Powell T, Hanfling D, Gostin LO. Emergency preparedness and public health: the lessons of Hurricane sandy. JAMA 2012;308:2569–70.

National Climate Assessment . 2014. http:// nca2014.globalchange. gov/ highlights/ report- findings/widespread-impacts/ graphics/ katrina-diaspora (accessed 23 May 2016).

Jossey Bass, 2015:221–66.16 Global Trends Report. http://www.ipsosglobaltrends.com/ environment. Html (accessed 23 May 2016). Watts N, Adger WN, Agnolucci P, et al. Health and climate change: policy responses to protect public health. Lancet 2015;386:1861–914.

Relevant Policy: None

FISCAL IMPACT: Volunteer committee, staff resources, dissemination costs.