



July 28, 2017

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**Re: Report on Carcinogens—Inclusion of “Meat-Related Exposures”**

Dear Dr. Lunn:

The consumption of both red and processed meat has been nominated for possible review in future Reports on Carcinogens. The Natural Resources Defense Council strongly recommends that exposure to meats be included in future Reports on Carcinogens. NRDC is a not-for-profit organization with over 2.4 million members and online activists dedicated to protecting the health of the public and our common environment. We have no financial interest in the conclusions of the Report on Carcinogens.

More than 15 million Americans live with cancer. In 2017, an estimated 1,688,780 new cancer cases will be diagnosed in the U.S., with 600,920 added cancer deaths – around 1,650 deaths per day. Cancer of the colon or rectum (colorectal cancer) causes the 2<sup>nd</sup> highest number of U.S. cancer deaths (after heart disease), around 50,000 this year alone.<sup>1</sup> In February 2017, the National Cancer Institute reported colorectal cancer rates for young adults, ages 20-39 years of age, have risen as much as 2.4% annually since the 1980s.<sup>2</sup>

Eating processed meats like bacon and hot dogs causes colorectal cancer, while eating red meat (including beef and veal, pork, goat and lamb) probably is carcinogenic to humans.<sup>3</sup> The risk of colorectal cancer is estimated to rise 18% for every 50 grams of processed meat consumed daily;

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<sup>1</sup> American Cancer Society website. Cancer Facts and Figures, 2017. Available at <https://www.cancer.org/research/cancer-facts-statistics/all-cancer-facts-figures/cancer-facts-figures-2017.html>.

<sup>2</sup> <https://www.ncbi.nlm.nih.gov/pubmed/28376186>.

<sup>3</sup> See Bouvard V, Loomis D, Guyton KZ, Grosse Y. Carcinogenicity of consumption of red and processed meat. *Lancet Oncol.* 2015;16(16):1599–1600, which summarizes the basis for these IARC/WHO designations.

A typical serving of ham, sausage, bologna, or hot dog weighs two ounces, or about 55 grams. Processed meat consumption may have contributed to as many as 5,000 colorectal cancer deaths in 2015 alone.<sup>4</sup> These are the 2015 conclusions of 22 experts from 10 countries convened under IARC, the International Agency for Research on Cancer. IARC has been conducting such reviews for forty years, having evaluated hundreds of foods, additives and environmental chemicals. Governments worldwide consider IARC's evaluations to be authoritative; non-industry experts also testify as to IARC's integrity and scientific credibility.<sup>5</sup> We affirm IARC's independence and scientific authority, especially in light of what appears to be inaccurate and unfair work to discredit it by a prominent journalist with close ties to regulated industries and their front groups.<sup>6</sup>

IARC/WHO's conclusions were in turn based upon a huge, convincing body of evidence – including epidemiological or human research. Many other comments already submitted here review that voluminous evidence base in greater depth, including comments from the Center for Science in the Public Interest<sup>7</sup>, the American Institute for Cancer Research/World Cancer Research Fund<sup>8</sup>, as well as individual physicians.<sup>9,10</sup>

Meanwhile, American red and processed meat consumption continues to be among the highest in the world, according to the most recently published OECD data.<sup>11</sup> Most Americans, for example, currently eat over 50 pounds of red meat annually.

Cancer and other chronic disease related to Americans' dietary choices are an economic issue, as well as an important public health problem. The enormous expense attendant to treatment of millions of people with cancer, as well as the lost productivity due their disease and early death, has an enormous impact on the nation's output and GDP. On the other hand, many of these cancers are preventable, much as were tobacco-related cancers.

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<sup>4</sup> Institute for Health Metrics and Evaluation. (2017). Global burden of disease compare: Global, both sexes, all ages, 2015, DALYs. University of Washington. Available at <https://vizhub.healthdata.org/gbd-compare/>.

<sup>5</sup> Pearce N, Blair A, Vineis P, et al. IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans. *Environmental Health Perspectives*. 2015;123(6):507-514. doi:10.1289/ehp.1409149.

<sup>6</sup> Malkan S. Reuters vs. UN Cancer Agency: Are Corporate Ties Influencing Science Coverage? Fairness and Accuracy in Reporting (FAIR) website. July 24, 2017. Accessed at <http://fair.org/home/reuters-vs-un-cancer-agency-are-corporate-ties-influencing-science-coverage/>

<sup>7</sup> Michael Jacobsen, PhD, Center for Science and the Public Interest (CSPI). Comments submitted June 5, 2017. Accessed at <https://ntp.niehs.nih.gov/ntp/roc/nominations/2017/publiccomm/jacobson20170605.pdf>

<sup>8</sup> Diedre McGinley-Gieser, American Institute for Cancer Research/World Cancer Research Fund. Comments submitted May 16, 2017. Access at [https://ntp.niehs.nih.gov/ntp/roc/nominations/2017/publiccomm/mginley\\_gieser20170516.pdf](https://ntp.niehs.nih.gov/ntp/roc/nominations/2017/publiccomm/mginley_gieser20170516.pdf).

<sup>9</sup> Comments submitted by James Craner, MD, MPH. Submitted April 28, 2017. Accessed at <https://ntp.niehs.nih.gov/ntp/roc/nominations/2017/publiccomm/craner20170428.pdf>.

<sup>10</sup> Comments of Neal Barnard, MD. Submitted on May 1, 2017. Accessed at <https://ntp.niehs.nih.gov/ntp/roc/nominations/2017/publiccomm/barnard20170501.pdf>

<sup>11</sup> Organization for Economic Cooperation and Development (OECD) website (2017), Meat consumption (indicator). doi: 10.1787/fa290fd0-en. Accessed July 27, 2017.

For these reasons, we urge that by including Americans' consumption of red and processed meat as an exposure to be addressed by future Reports on Carcinogens, the NTP will be taking an important step in educating the public as to the impact of their dietary choices, as well as to protect their health. Thank you for your consideration.

Sincerely,



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