Dear Prof. Enstrom,

Your letter referring to the Pope article of January 22 has been received. Because of the limited availability of space we can publish only a fraction of the letters we receive. Although we will not be able to print yours, we have forwarded a copy to the authors in case they wish to reply directly to you.

Thank you for your interest in the Journal.

Sincerely yours,

Jeffrey M. Drazen, M.D.
Editor-in-Chief
New England Journal of Medicine

Dear Dr. Enstrom,

Thank you for your email and voicemail. I will make sure your revised letter is given to the editor. You will be informed of the final editorial decision via email.

Sincerely,

Elise DeVoe
Editorial Assistant
New England Journal of Medicine
10 Shattuck Street
Boston, MA 02115
(617) 734-9800
Fax: (617) 739-9864
http://www.nejm.org
February 11, 2009 2:20 PM PDT

Dear NEJM Letters Editor:

During the past hour I tried, but failed, to upload the attached revised version of the NEJM letter that I successfully submitted on February 10, 2009. Please let me know if you can consider my revised letter instead of my original letter.

Thank you very much for your consideration.

Best regards,

James E. Enstrom, Ph.D., M.P.H.
(310) 825-2048

From: NEJM Letter to the Editor <letter@nejm.org>
To: <jenstrom@ucla.edu>
Date: Wed, 11 Feb 2009 02:59:31 (GMT)
Subject: The New England Journal Of Medicine - Letter to the Editor Confirmation

Dear Prof. James Enstrom:

We have received submission of your letter. If you wish to edit your letter before 2/11/2009 4:59:59 PM EST, please use the following link:

http://authors.nejm.org/letters/changeLetter.asp?confirmationId=EDE50A64

Thank you.

NEJM Letter Re PM2.5 & Life Expectancy Pope 021109.doc
New England Journal of Medicine
Letter to the Editor

The attempt to attribute increased life expectancy in the United States with reduction in fine particulate air pollution (PM2.5) (1) is problematic because it is based on weak and inconsistent ecological relationships, lack of a definitive causal mechanism, and substantial PM2.5 measurement errors, as repeatedly noted since 1997 (2). Although some relationship may exist in parts of the United States, Figure 4 shows very poor consistency between increase in life expectancy (years) and reduction in PM2.5 concentrations (µg/m³) in the four California metropolitan-level observations: Los Angeles (4.1, 6.6), San Diego (2.8, 3.3), San Francisco (4.4, 3.8), and San Jose (4.2, 3.3). There is no relationship in 11 California counties based on my own assessment of reduction in PM2.5 concentrations (3) and increase in life expectancy (4). The data and regression analysis are shown in Table 1. This lack of a relationship in California is consistent with evidence from several other sources (5). Inconclusive epidemiologic evidence of this type should not be used to support onerous regulatory policy regarding PM2.5, particularly in California.

Conflict of Interest

I have no conflict of interest with respect to the above letter, which contains well documented facts. Full details about my research career and funding are on my website: www.scientificintegrityinstitute.org.

References


Table 1: Decrease in PM2.5 concentrations (μg/m³) from 1979-1983 to 1999-2001 (3) versus increase in life expectancy at birth (years) from 1980 to 1999 (4) in 11 California counties, with regression analysis results.

<table>
<thead>
<tr>
<th>California counties</th>
<th>1979-1983 PM2.5</th>
<th>1999-2001 PM2.5</th>
<th>Reduction in PM2.5</th>
<th>1980 LE at birth</th>
<th>1999 LE at birth</th>
<th>Increase in LE at birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>14.4</td>
<td>14.4</td>
<td>0.0</td>
<td>74.17</td>
<td>78.11</td>
<td>3.94</td>
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<td>Butte</td>
<td>15.5</td>
<td>15.4</td>
<td>0.1</td>
<td>75.13</td>
<td>76.50</td>
<td>1.37</td>
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<td>Contra Costa</td>
<td>13.9</td>
<td>14.0</td>
<td>-0.1</td>
<td>75.43</td>
<td>78.81</td>
<td>3.38</td>
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<td>Fresno</td>
<td>18.4</td>
<td>20.2</td>
<td>-1.8</td>
<td>74.66</td>
<td>77.11</td>
<td>2.45</td>
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<tr>
<td>Kern</td>
<td>30.9</td>
<td>19.4</td>
<td>11.5</td>
<td>72.81</td>
<td>75.68</td>
<td>2.87</td>
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<td>Los Angeles</td>
<td>28.2</td>
<td>20.4</td>
<td>7.8</td>
<td>73.99</td>
<td>78.10</td>
<td>4.11</td>
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<tr>
<td>Riverside</td>
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<td>21.1</td>
<td>20.9</td>
<td>74.13</td>
<td>77.33</td>
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<td>San Diego</td>
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<td>15.2</td>
<td>3.7</td>
<td>75.71</td>
<td>78.54</td>
<td>2.83</td>
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<td>San Francisco</td>
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<td>15.4</td>
<td>1.0</td>
<td>73.19</td>
<td>77.95</td>
<td>4.76</td>
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<tr>
<td>Santa Barbara</td>
<td>10.6</td>
<td>10.7</td>
<td>-0.1</td>
<td>76.32</td>
<td>79.77</td>
<td>3.45</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>17.8</td>
<td>17.0</td>
<td>0.8</td>
<td>76.01</td>
<td>80.26</td>
<td>4.25</td>
</tr>
</tbody>
</table>

Regression analysis results:

mean increase in life expectancy at birth from 1980 to 1999 = 3.3295 years

regression coefficient ± standard error

= -0.0033 ± 0.4588 years per 10 μg/m³

decline in PM2.5