

JOE D. CORLESS, MD FAAP

Testimony Submitted To:
Senator Barbara Boxer, Chairman
United States Senate Committee on Environment and Public Works
Wednesday, October 10, 2007 – San Bernardino County

“Air Pollution Challenges for California’s Inland Empire”

I am here today on behalf of the 146,000 children in San Bernardino and Riverside counties with asthma. In the state of California there are reported over 1,326,000 children, 17 and under with asthma.

Asthma is a major public health concern effecting up to 17% of children in the Inland Empire, disproportionately impacting Blacks, Hispanics and low income population groups.

Asthma continues to be responsible for 25% of all school absences making it the leading cause. And asthma is the most common chronic condition of children affecting more than 1 of 7 under 18 years of age. Asthma accounts for more than 25% of Emergency Room visits and 44% of all asthma hospitalizations are for children.

Since 1980 the asthma related death rate for children has increased by over 80% and, make no mistake, air pollution, including first hand and second hand smoke, is the number one preventable cause of lung disease including asthma. The cost of asthma management in the United States is approximately \$18 billion (direct and indirect) per year of which \$1.4 billion represents California. In the Inland Empire, the cost of asthma care is estimated at \$38 million of which a significant portion of the cost is from hospitalizations. Each hospitalization may cost up to \$10,000 per occurrence. Children that are poorly managed are at greater risk and may have several hospitalizations during any given year.

As you know, two of the most common and dangerous air pollutants are ozone and particulate matter which afflict the Los Angeles basin and the Inland Empire particularly the latter from diesel engine emissions. San Bernardino County is a major arterial for diesel truck and locomotive freight contributing significantly to the emission of these pollutants.

Results from the landmark Children’s Health Study¹ at the University of Southern California found that air pollution reduces children’s lung growth and function leading to permanent damage. The study also found that air pollution may actually cause asthma in otherwise healthy children.

The American Lung Association’s 2007 State of the Air Report² once again found that Californians experience the worst air quality in the nation with the San Bernardino-Los Angeles-Long Beach region having the most polluted air in the nation.

Statistics can be personalized with two severe cases of asthma.

¹ Children’s Health Study, University of Southern California

² State of the Air Report, American Lung Association, 2007

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First, I cite the case of a male teenager who is confident that he can play his favorite soccer game compared to seven years ago when we diagnosed him with the most acute level of asthma per national guidelines including over 10 hospitalizations and requiring home schooling because of air pollution levels. Utilizing the most current and effective controller medications combining inhaled steroids, long acting bronchodilators and anti-leukotrienes along with rescue medications he now enjoys sports, attends regular school with only 2 days of absences this past year and no hospitalizations for over 4 years.

A second, much more depressing case of a poorly medically managed young adult presented to an emergency room on a smoggy day with severe shortness of breath and cyanosis from poor oxygen-carbon dioxide exchange but still able to speak short sentences. To best understand this kind of episode, try breathing through a straw in your mouth while jogging to experience the sensation. Despite the best of emergency treatment, this patient died.

The California Asthma Public Health Initiative³ provides for the best practices in childhood asthma. These include:

1. Improving the quality of clinical asthma care for children according to National Asthma Education and Prevention Program (NAEPP) guidelines.
2. Preventing childhood asthma symptoms, hospitalizations, and urgent care visits.
3. Reducing and eliminating asthma health disparities in children.
4. Improving the quality of life for children with asthma.

These goals will be achieved by:

1. Funding community contractors to train and support a full-time clinic-based asthma coordinator to improve individual asthma education and care coordination.
2. Utilizing continuous quality improvement (CQI) strategies in the clinic to improve the delivery and quality of asthma care, focusing on four components of quality asthma care (use of asthma visit flow sheets, asthma action plans, a home environmental assessment tool, and comprehensive child/family asthma education).
3. Implementing state-level training, guidance, technical assistance and evaluation.
4. Community outreach to promote and disseminate these best practices.

Reduction of air pollution in the Inland Empire is a major factor in meeting these goals for the future. Continuing to expand incentives such as tax credits or deductions and grants encouraging the use of alternative renewable fuels that reduce emissions are just a few of the many ways we can partner with the private sector to improve air quality.

³ California Asthma Public Health Initiative, "Best Practices in Childhood Asthma" (BPCA), 4/5/2007