

# GET THE LEAD OUT: CRIME REDUCTION IN AMERICA

I saw this via Kevin Drum about a week ago and meant to put a post up because it is both stunning and fascinating. Mark Kleiman has a book out on criminal justice and punishment by the name of *When Brute Force Fails*. The reviews have been fantastic, but it is the discussion of the effects of reduction in lead exposure on the crime rate that caught my eye:

Given the decrease in lead exposure among children since the 1980s and the estimated effects of lead on crime, reduced lead exposure could easily explain a very large proportion – certainly more than half – of the crime decrease of the 1994-2004 period. A careful statistical study relating local changes in lead exposure to local crime rates estimates the fraction of the crime decline due to lead reduction as greater than 90%.

Jeebus; that is pretty eye opening. Granted, there are a lot of nits that could be picked as to whether this is a direct or correlative relationship and, even if it is direct, to what extent it is so; however, it is a hell of a discussion point.

A 2007 Washington Post article described one of the studies behind Kleiman's assertion:

The theory offered by the economist, Rick Nevin, is that lead poisoning accounts for much of the variation in violent crime in the United States. It offers a unifying new neurochemical theory for fluctuations in the crime rate, and it is based on studies linking children's exposure to lead with violent behavior later in their lives.

What makes Nevin's work persuasive is that he has shown an identical, decades-long association between lead poisoning and crime rates in nine countries.

"It is stunning how strong the association is," Nevin said in an interview. "Sixty-five to ninety percent or more of the substantial variation in violent crime in all these countries was explained by lead."

Through much of the 20th century, lead in U.S. paint and gasoline fumes poisoned toddlers as they put contaminated hands in their mouths. The consequences on crime, Nevin found, occurred when poisoning victims became adolescents. Nevin does not say that lead is the only factor behind crime, but he says it is the biggest factor.

As an added bonus, the Post article uses Nevin's study to mock Rudy Giuliani's constant claim that he is the man who singlehandedly drastically cut the crime rate in New York City:

Rudy Giuliani never misses an opportunity to remind people about his track record in fighting crime as mayor of New York City from 1994 to 2001.

"I began with the city that was the crime capital of America," Giuliani, now a candidate for president, recently told Fox's Chris Wallace. "When I left, it was the safest large city in America. I reduced homicides by 67 percent. I reduced overall crime by 57 percent."

Although crime did fall dramatically in New York during Giuliani's tenure, a broad range of scientific research has emerged in recent years to show that the mayor deserves only a fraction of the credit that he claims. The most compelling information has come from an economist in Fairfax who has argued in a

series of little-noticed papers that the “New York miracle” was caused by local and federal efforts decades earlier to reduce lead poisoning.

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Lead levels plummeted in New York in the early 1970s, driven by federal policies to eliminate lead from gasoline and local policies to reduce lead emissions from municipal incinerators. Between 1970 and 1974, the number of New York children heavily poisoned by lead fell by more than 80 percent, according to data from the New York City Department of Health.

Lead levels in New York have continued to fall. One analysis in the late 1990s found that children in New York had lower lead exposure than children in many other big U.S. cities, possibly because of a 1960 policy to replace old windows. That policy, meant to reduce deaths from falls, had an unforeseen benefit – old windows are a source of lead poisoning, said Dave Jacobs of the National Center for Healthy Housing, an advocacy group that is publicizing Nevin’s work. Nevin’s research was not funded by the group.

The later drop in violent crime was dramatic. In 1990, 31 New Yorkers out of every 100,000 were murdered. In 2004, the rate was 7 per 100,000 – lower than in most big cities. The lead theory also may explain why crime fell broadly across the United States in the 1990s, not just in New York.

The centerpiece of Nevin’s research is an analysis of crime rates and lead poisoning levels across a century. The United States has had two spikes of lead poisoning: one at the turn of the 20th century, linked to lead in household paint, and one after World War II, when

the use of leaded gasoline increased sharply. Both times, the violent crime rate went up and down in concert, with the violent crime peaks coming two decades after the lead poisoning peaks.

Other evidence has accumulated in recent years that lead is a neurotoxin that causes impulsivity and aggression, but these studies have also drawn little attention. In 2001, sociologist Paul B. Stretesky and criminologist Michael Lynch showed that U.S. counties with high lead levels had four times the murder rate of counties with low lead levels, after controlling for multiple environmental and socioeconomic factors.

The entire Post article is well worth a read. It makes clear that Nevin is not a voice in the scientific wilderness in his conclusions, there is a lot of support although there has been little publicity. The lack of publicity, and lack of consideration by Congress should change. Amelioration of lead contamination and exposure is a lot cheaper to society than the deep costs of the root crime, police investigation, justice system expenses and, of course, the burgeoning American prison empire.

I really do not have any intrinsic value to add to the material cited herein, but wanted to get it out and in the discussion matrix. There are obviously health benefits that would accrue from increased attention to removal of environmental lead as well. This is a subject screaming for consideration by policy makers in Washington DC.

PostScript – For any of you that don't know Mark Kleiman, in addition to being the author of the book this post started off with, he is also a professor at UCLA in the School of Public Affairs and runs a very nice and informative blog.