

Removing Lead from Petrol

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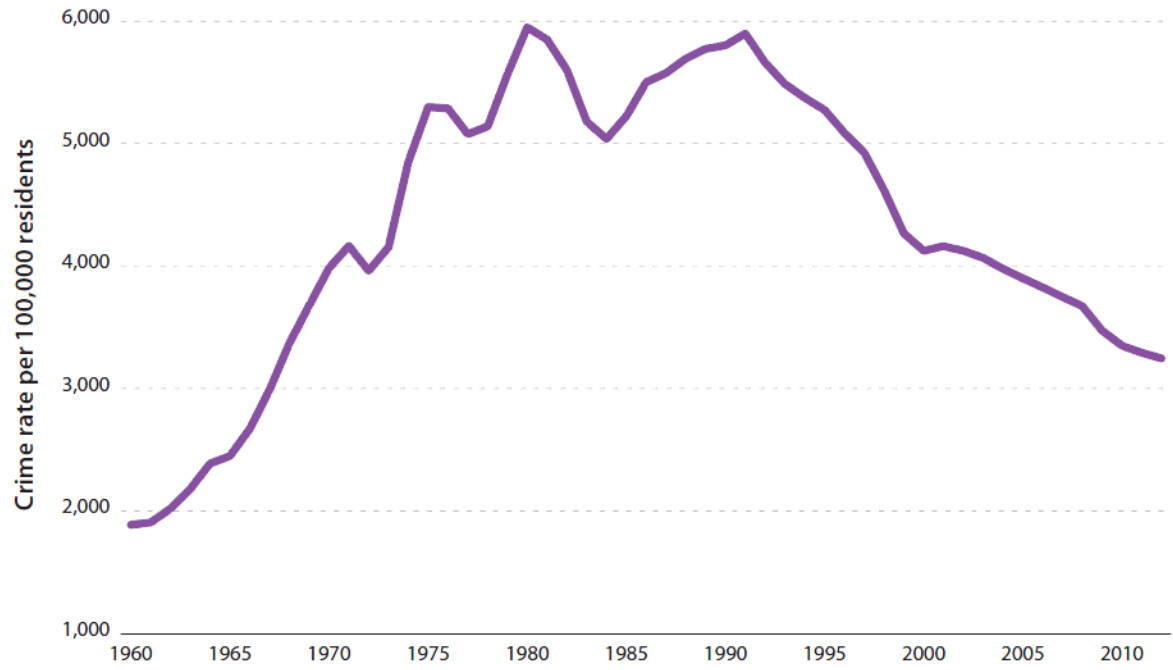
UN Environment



Crime Rates Dropping.....Why?

FIGURE 1.
Crime Rate in the United States, 1960–2012

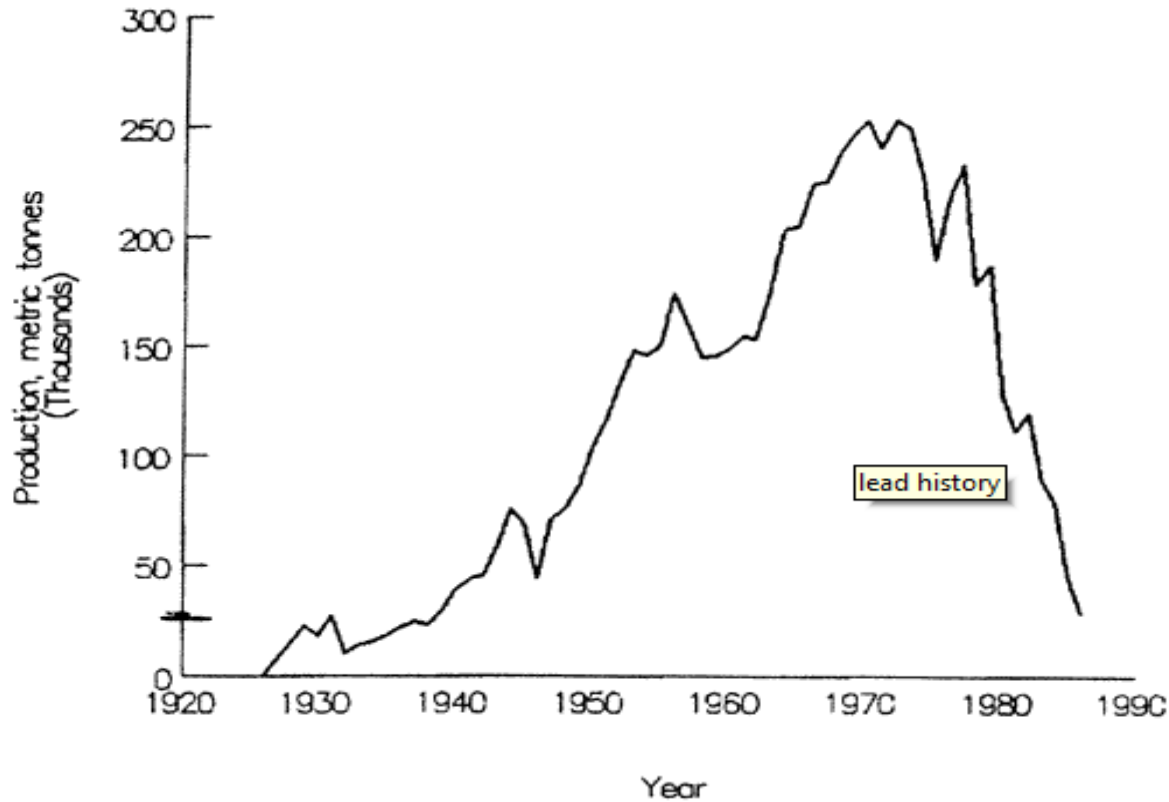
After being particularly elevated during the 1970s and 1980s, the crime rate fell nearly 45 percent between 1990 and 2012.



Sources: DOJ 2010b; authors' calculations.
Note: The crime rate includes all violent crimes (i.e., aggravated assault, forcible rape, murder, and robbery) and property crimes (i.e., burglary, larceny-theft, and motor vehicle theft).



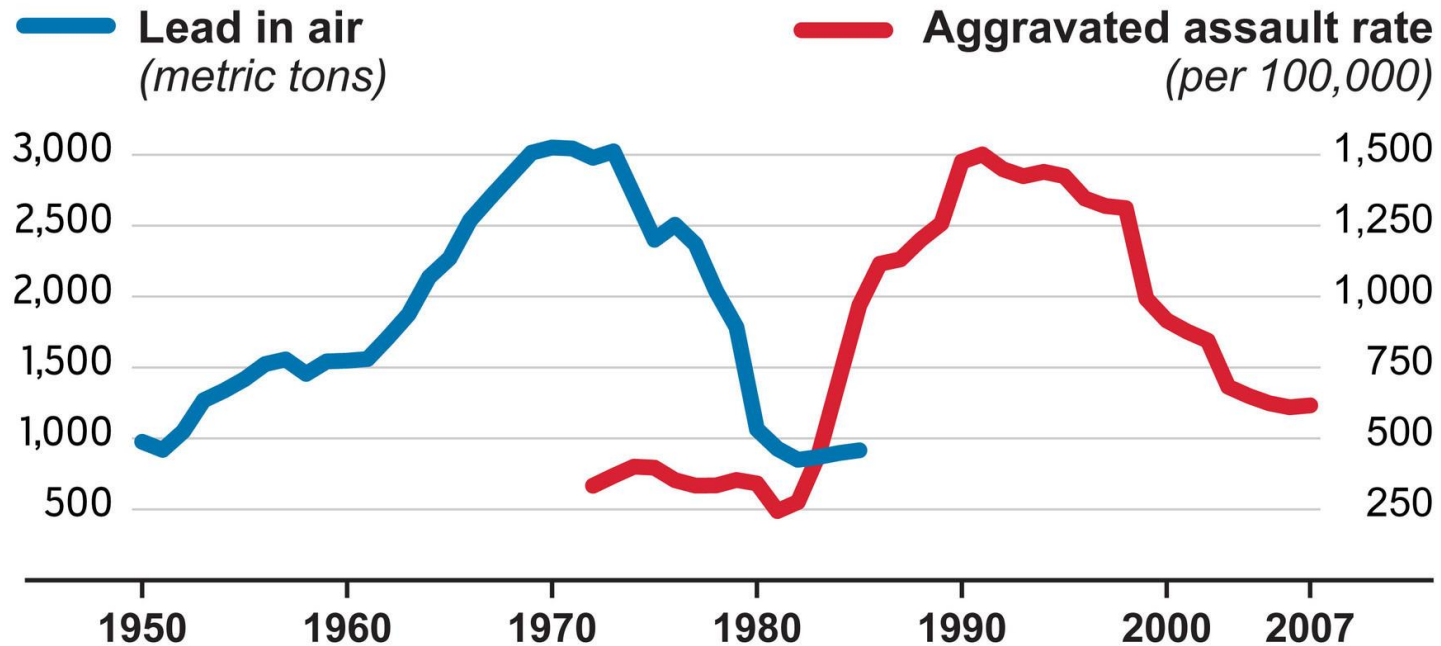
Production Leaded Gasoline in the US 1920-1990



<http://www.asymptosis.com/government-gets-the-lead-out-crime-plummets.html>

Chicago – Crime vs Lead

Trends in lead pollution, assault rates in Chicago



Sources: Howard Mielke, Tulane University School of Medicine,
Sammy Zahran, Colorado State University

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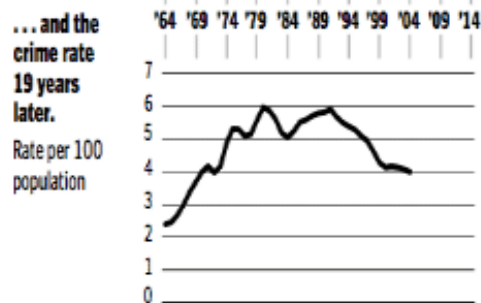
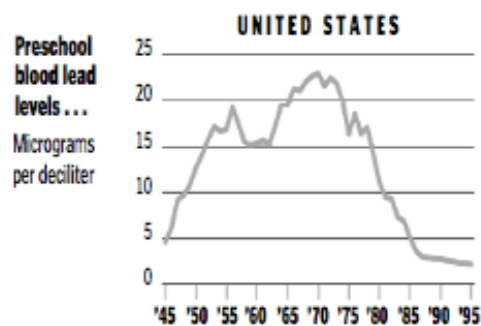
Crime Rates vs Leaded Petrol (US)

Lead exposure and violent crime, USA

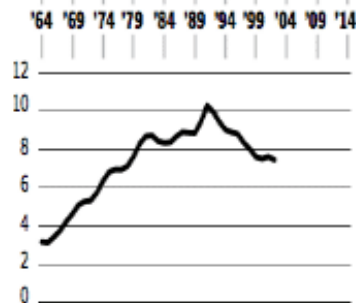
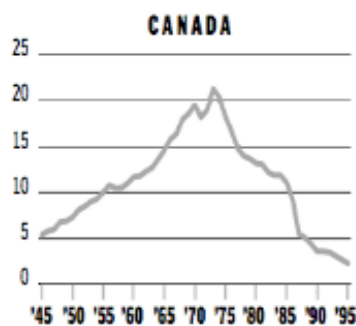


Source: R. Nevin

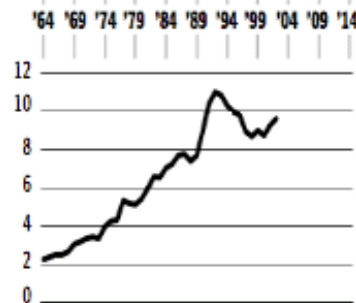
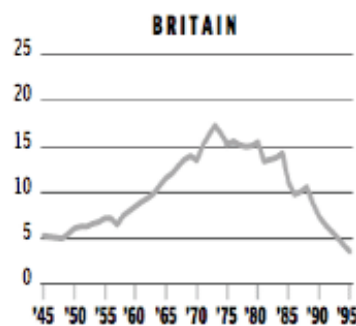
Not only in the US...



Crimes counted in the U.S. chart are murder, rape, aggravated assault, burglary and theft — what experts call "index crimes."



Crimes in Canada and Britain charts are murder, rape, aggravated assault, burglary, threats and assaults without injury, as well as thefts that fall below the U.S. threshold for an index crime. The crime rates — and scales — in these charts are higher than in the U.S. chart because they include more types of crime.

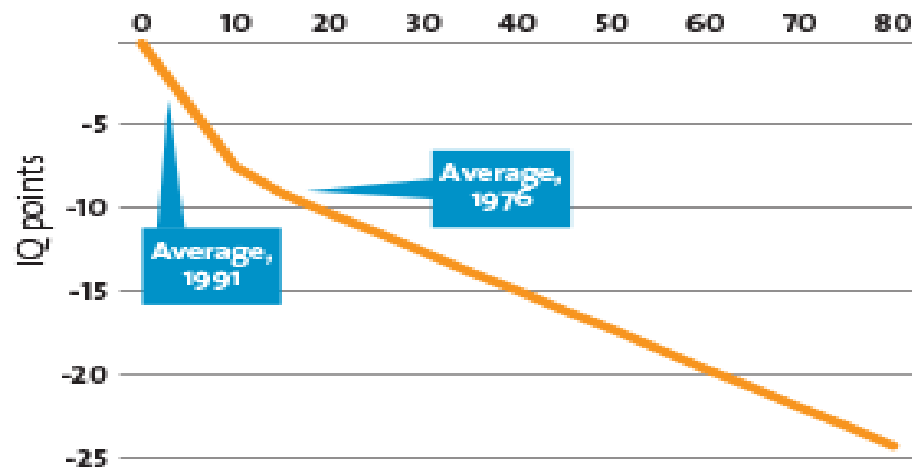


Lead Impacting IQ

DID LEAD MAKE YOU DUMBER?

Even low levels have a significant effect.

Blood lead level in $\mu\text{g}/\text{dL}$ (children under 6)



Mother Jones

ENVIRONMENT FOOD MEDIA CRIME & JUSTICE PHOTOS INVESTIGATIONS

Lead: America's Real Criminal Element

The hidden villain behind violent crime, lower IQs, and even the ADHD epidemic.

KEVIN DRUM FEB. 11, 2016 6:58 PM

f t e l

Global Benefits

- GDP = \$2.44 trillion / year
- IQ = 322,286,258 points/year
- Adult mortality = 1,089,028 premature deaths/year
- Child mortality = 125,403 premature deaths/year
- Crime = 58,691,014 cases/year

Source: Hatfield and Tsai, California State University, 2010



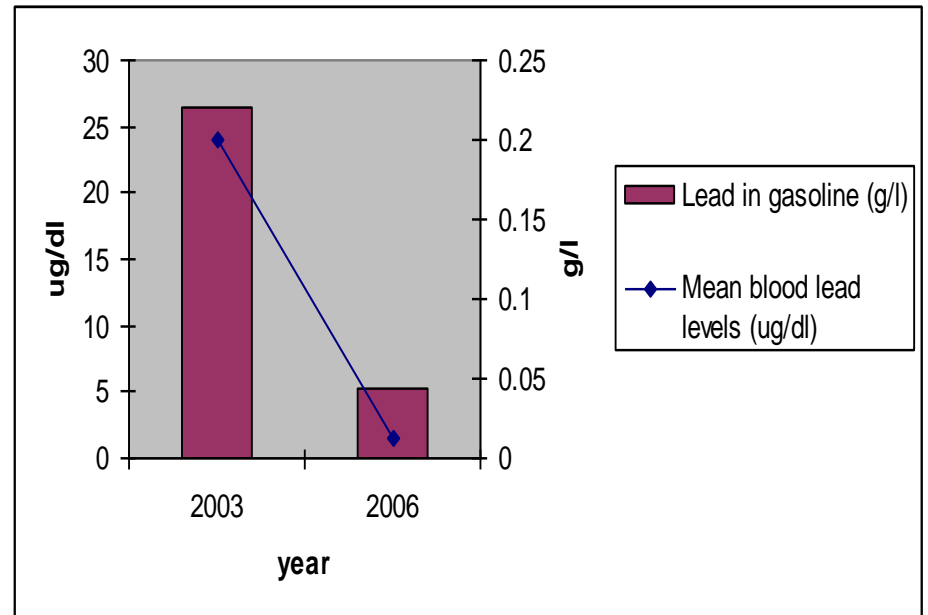
Partnership for
Clean Fuels and Vehicles

- **Governments**
- **Industry (oils & vehicles)**
- **Civil society**
- **Independent experts**
- **International organisations**
- **Secretariat at UN Environment**

Baselines – Blood Lead Testing



Ghana Blood lead levels



Awareness

**Improve your
childrens IQ.**



**Switch to
unleaded petrol**

Atmospheric lead from leaded petrol is causing a significant IQ loss in children.
By eliminating lead, Unleaded Petrol allows children's minds to develop normally.



**Double the life of
your exhaust pipe.**



**Switch to
unleaded petrol.**

Because acidity levels are much lower in Unleaded Petrol, engine corrosion is minimized
so your exhaust pipe and muffler will last twice as long.



**Save 80% on
spark plugs.**



**Switch to
unleaded petrol.**

By eliminating lead deposits on electrodes, Unleaded Petrol increases spark plug life by 80%.



Regional and National Support

Laos



Ecuador



Burundi

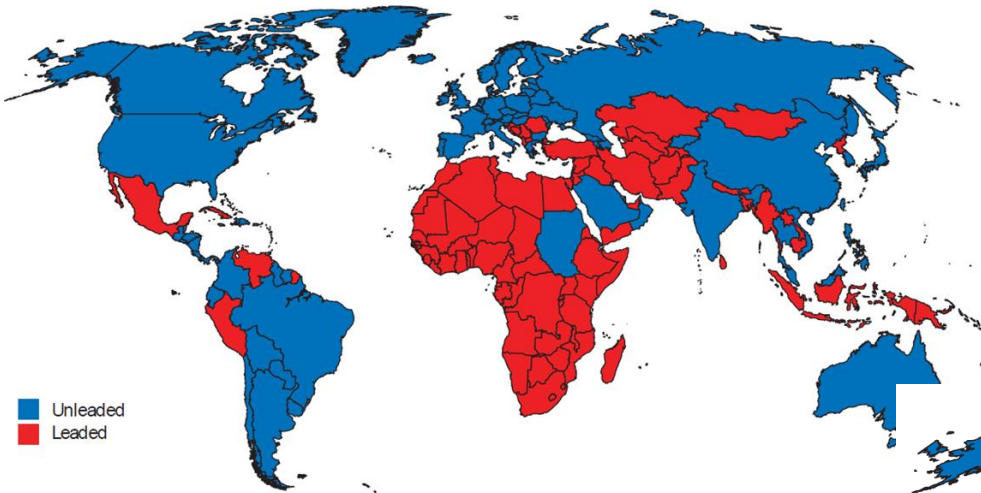


Cairo



countries went unleaded

2002



TODAY



Status as of End 2002

Lessons Learned – US Government

PCFV lead campaign success factors:

- Intervention design well-focused on its objectives
- Comprehensive composition of the Partnership
- Ability to support multi-level processes
- Approach tailored to available finance
- High quality management and staff

Partnerships Lessons - UN Environment

Partnerships design principles:

- Clear objectives and commonly agreed goals
- Timescale with milestones
- Early attention to high level political commitment
- Each partner makes a unique contribution and is essential for success
- Clear governance rules and structure
- Ability to listen and compromise
- Monitoring system for compliance