

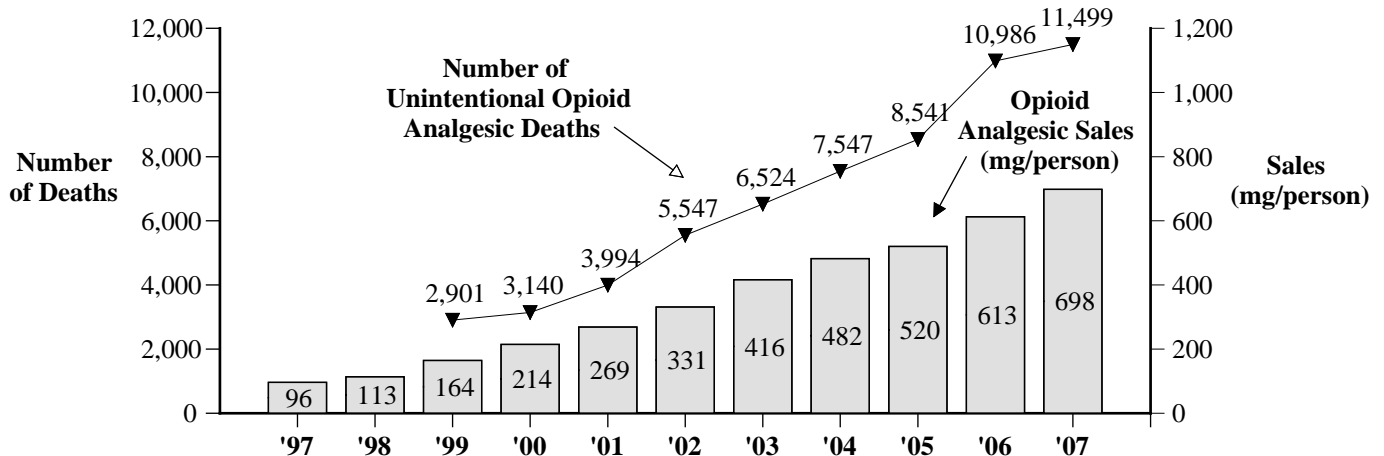
A Weekly FAX from the Center for Substance Abuse Research

University of Maryland, College Park

Increases in Unintentional Overdose Deaths Involving Opioid Analgesics Mirror Rise in Per Capita Sales of These Drugs

Sales of opioid analgesics, such as oxycodone and hydrocodone, have increased more than 600% since 1997, according to data from the Drug Enforcement Administration (DEA). Opioid analgesic sales increased from 96 milligrams per person in 1997 to 698 milligrams per person in 2007. During the same time period, the number of unintentional deaths involving opioid analgesics quadrupled, from 2,901 in 1999 to 11,499 in 2007 (the most recent year for which data are available). The increase in deaths and sales are highly correlated ($r=0.99$), supporting previous research¹ showing a strong, statistically significant correlation between states with the highest drug-poisoning mortality rates and states with the highest overall per capita sales of opioid analgesics. These findings suggest that the increased sales of opioid analgesics over the past decade may have inadvertently contributed to increases in opioid analgesic overdose deaths.

**Number of Unintentional Overdose Deaths Involving Opioid Analgesics and
Per Capita Sales of Opioid Analgesics (in Morphine Equivalents),
United States, 1997 to 2007**



¹Paulozzi, L.G., and Ryan, G.W., "Opioid Analgesics and Rates of Fatal Drug Poisoning in the United States," *American Journal of Preventive Medicine* 31(6):506-511, 2006.

NOTES: Sales data are from the DEA's Automated Reports and Consolidated Orders System (ARCOS), which requires manufacturers and distributors to report the number of grams of each monitored substance distributed to pharmacies, practitioners, hospitals, teaching institutions, and narcotics treatment programs. The amounts of each opioid analgesic drug were converted into morphine equivalents. Death data are from the CDC's National Vital Statistics System (NVSS), multiple causes of death dataset.

SOURCES: Adapted by CESAR from Paulozzi, L.J., Weisler, R.H., and Patkar, A.A., "A National Epidemic of Unintentional Prescription Opioid Overdose Deaths: How Physicians Can Help Control It," [published online ahead of print April 19, 2011], *Journal of Clinical Psychiatry*, 2011; and Baldwin, G. and Paulozzi, L.J., *The Epidemic of Prescription Drug Overdoses*, PowerPoint presentation provided by NCIPC, 5/23/2011.