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Analgesic Narcotics: Effects Beyond Pain Relief

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Even the legal use of pain pills can have important community-level implications.

A collaborative effort between 3 University of Kentucky Colleges and the Foundation for a Healthy Kentucky to examine Medicaid pharmaceutical utilization.

Eastern Kentucky shows the highest use, while the Urban Triangle has the lowest on a per 1,000 Medicaid Member-Year basis.

Over 3.8 million prescriptions for analgesic narcotics were written for Kentucky adults on Medicaid from 2000-2010, the most of any therapeutic class.¹ The use of narcotic painkillers—both legal and illicit—can have far-reaching implications for individuals, businesses, and communities. With an estimated 1,000 Kentuckians dying annually because of the nonmedical use of prescription pain relievers, a law was passed this spring that tightens the rules on the dispensing of so-called “pain pills.”² But it is not just the illegal use of pain pills that should concern policymakers and community leaders. Injured workers who receive high doses of opioid painkillers stay out of work three times longer than workers who have similar injuries but receive lower doses.³ Moreover, it is estimated that the use of strong narcotics, like OxyContin, to treat workplace injury results in a disability payment and medical care cost that is nine times higher than when a narcotic is not used.⁴

The Foundation for a Healthy Kentucky funded this collaborative study between the College of Communication and Information, Center for Business and Economic Research, and Institute for Pharmaceutical Outcomes and Policy, to examine the Medicaid pharmaceutical outpatient utilization of analgesic narcotics by adults (19 and older) from 2000 to 2010.⁵

The highest utilization among Medicaid patients is in the eastern part of the state, as shown in Figure 1.⁶ Shelby County has the lowest usage at 2,218 grams per 1,000 member-years⁷ while Martin County has the highest at 26,609 grams (see Table 2 and Figure 2).

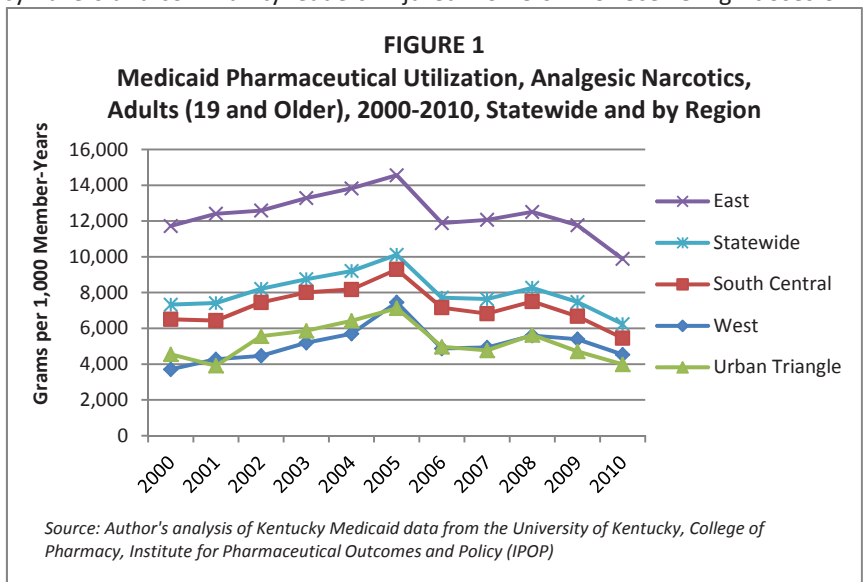


TABLE 1
Kentucky Counties by Adult Analgesic Narcotic Utilization, And Selected Crime, Health, Education, and Economic Factors

| Indicators | KY | Analgesic Narcotics, Grams Dispensed per 1,000 Medicaid Member-Years, 2000-2010 | | | |
|--|----------|---|----------|----------|----------|
| | | 0-7k | 7k-10k | 10k-20k | Over 20k |
| Arrests for Synthetic Narcotics, 2008-2010 | | | | | |
| Arrests per 1,000 Population | 2.4 | 2.3 | 3.6 | 1.5 | 4.3 |
| Health Indicators, (18 and Older), 2000-2010 | | | | | |
| Current Smoker (%) | 28.4 | 26.3 | 29.8 | 31.8 | 29.7 |
| Obese (%) | 27.7 | 26.7 | 30.0 | 32.6 | 36.0 |
| Lack of Physical Activity (%) | 31.1 | 27.8 | 35.2 | 40.2 | 37.9 |
| Heavy Alcohol Consumption (%) | 3.2 | 3.8 | 2.9 | 2.5 | 1.4 |
| At Risk for Chronic Disease (%) | 62.5 | 59.0 | 66.9 | 71.1 | 69.9 |
| Educational Attainment, (25 and Older), 2006-2010 | | | | | |
| High School Graduate or Higher | 81.0 | 84.1 | 76.0 | 69.3 | 63.8 |
| Bachelor's Degree or Higher | 20.3 | 23.2 | 14.0 | 10.9 | 9.0 |
| Economic Indicators 2006-2010 | | | | | |
| Per Capita Personal Income (2010) | \$32,316 | \$34,035 | \$27,214 | \$27,504 | \$25,335 |
| Unemployment (% , 2010 Annual) | 10.2 | 9.9 | 11.2 | 11.4 | 12.1 |

Source: Authors' analysis of data from Centers for Disease Control and Prevention (CDC), Behavioral Risk Factor Surveillance System Survey Data, Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2010. Education and economic data are from the U.S. Census Bureau, the U.S. Bureau of Economic Analysis, the Local Area Unemployment Statistics, and the Kentucky State Policy, Crime in Kentucky reports.



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The causes of pain pill abuse are wide-ranging, so must the solutions.

Shelby County has the lowest usage at 2,218 grams, while Martin County has the highest at 26,609 grams.

House Bill 1, which passed during the extraordinary session of the Kentucky General Assembly in April, 2012, and promptly signed by the Governor, was designed to decrease the illegal or nonmedical use of prescription pain relievers. However, the extent of drug abuse in some of Kentucky's communities is taking place within a context of more fundamental and deep-rooted problems, as evidenced by the data in Table 1. Higher usage of analgesic narcotics is generally associated with poorer health outcomes, lower educational attainment, lower incomes and higher unemployment—all of which will require more than a “pill-mill” law to address.

TABLE 2
Medicaid Pharmaceutical Utilization Analgesic Narcotics (Grams per 1,000 Member-Years),
Adults (19 and Older), 2000-2010, by Kentucky County,

| County | Grams per 1,000 M-Y | County | Grams per 1,000 M-Y | County | Grams per 1,000 M-Y | County | Grams per 1,000 M-Y |
|--------------|---------------------|-----------|---------------------|------------|---------------------|------------|---------------------|
| Adair | 6,844 | Edmonson | 5,845 | Knox | 11,021 | Nicholas | 5,615 |
| Allen | 10,989 | Elliott | 10,787 | Larue | 3,682 | Ohio | 5,409 |
| Anderson | 5,614 | Estill | 10,350 | Laurel | 9,452 | Oldham | 4,802 |
| Ballard | 6,832 | Fayette | 4,806 | Lawrence | 13,644 | Owen | 5,152 |
| Barren | 5,059 | Fleming | 4,858 | Lee | 13,255 | Owsley | 16,082 |
| Bath | 6,620 | Floyd | 14,816 | Leslie | 14,290 | Pendleton | 8,636 |
| Bell | 16,267 | Franklin | 5,088 | Letcher | 15,761 | Perry | 11,834 |
| Boone | 5,998 | Fulton | 5,905 | Lewis | 5,924 | Pike | 10,522 |
| Bourbon | 4,334 | Gallatin | 7,012 | Lincoln | 4,787 | Powell | 8,766 |
| Boyd | 10,282 | Garrard | 8,286 | Livingston | 5,725 | Pulaski | 9,236 |
| Boyle | 5,757 | Grant | 9,433 | Logan | 5,033 | Robertson | 2,611 |
| Bracken | 4,281 | Graves | 4,741 | Lyon | 7,938 | Rockcastle | 10,033 |
| Breathitt | 13,371 | Grayson | 8,341 | Madison | 6,982 | Rowan | 8,394 |
| Breckinridge | 4,645 | Green | 6,045 | Magoffin | 15,626 | Russell | 6,659 |
| Bullitt | 5,281 | Greenup | 7,318 | Marion | 3,311 | Scott | 4,760 |
| Butler | 7,621 | Hancock | 3,781 | Marshall | 6,641 | Shelby | 2,218 |
| Caldwell | 6,241 | Hardin | 4,649 | Martin | 26,609 | Simpson | 7,036 |
| Calloway | 4,635 | Harlan | 10,098 | Mason | 2,853 | Spencer | 4,713 |
| Campbell | 5,079 | Harrison | 5,447 | McCracken | 5,820 | Taylor | 6,851 |
| Carlisle | 3,915 | Hart | 4,720 | McCreary | 15,994 | Todd | 4,557 |
| Carroll | 4,356 | Henderson | 4,368 | McLean | 2,419 | Trigg | 4,882 |
| Carter | 6,481 | Henry | 4,821 | Meade | 5,286 | Trimble | 4,885 |
| Casey | 7,447 | Hickman | 5,606 | Menifee | 6,656 | Union | 6,609 |
| Christian | 3,642 | Hopkins | 6,044 | Mercer | 4,177 | Warren | 5,895 |
| Clark | 7,041 | Jackson | 9,431 | Metcalfe | 7,057 | Washington | 4,309 |
| Clay | 20,715 | Jefferson | 4,114 | Monroe | 14,751 | Wayne | 7,607 |
| Clinton | 10,337 | Jessamine | 9,068 | Montgomery | 6,863 | Webster | 5,083 |
| Crittenden | 6,283 | Johnson | 23,446 | Morgan | 7,084 | Whitley | 14,803 |
| Cumberland | 10,689 | Kenton | 5,313 | Muhlenberg | 7,708 | Wolfe | 13,542 |
| Daviess | 3,681 | Knott | 14,566 | Nelson | 4,047 | Woodford | 6,656 |

Note: Analgesic Narcotics are therapeutic classes H3A and H6H.

Source: Author's analysis of Kentucky Medicaid data from The University of Kentucky, College of Pharmacy, Institute for Pharmaceutical Outcomes and Policy (iPOP)

Notes ¹Kentucky Medicaid Pharmaceutical Utilization Guide, 2000-2010, available at <cber.uky.edu>. The University of Kentucky, Office of Research Integrity, Institutional Review Board, authorized this research with Exemption Certification for Protocol No. 11-0641-X2B (September 2011), as did the Kentucky Cabinet for Health and Family Services Institutional Review Board (CHFS IRB) (November 2011).

²Laura Ungar, “Politicians, experts: Pill-mill law step in right direction,” *Courier-Journal*, April 29, 2012.

³Barry Meier, “Pain Pills Add Cost and Delays to Job Injuries,” *New York Times*, June 3, 2012.

⁴Ibid.

⁵Analgesic narcotics are the therapeutic classes of H3A and H6H. Medicaid is a state-federal partnership to provide health care coverage for people with lower incomes, older people, people with disabilities, and some families and children. The data presented here do not include pharmaceutical utilization that a Medicaid patient receives while admitted to a hospital. Also, these data do not include pharmaceuticals that are paid for by sources other than Medicaid, such as private insurance or out-of-pocket money.

⁶The decline in 2006 is due to the transition from Medicaid to Medicare Part D. Drug usage did not necessarily decline—just drug usage funded by Medicaid. The West region is comprised of the counties in the three most western Area Development Districts (ADDs). The East region is comprised of the six most eastern ADDs. The Urban Triangle is comprised of the Bluegrass, KIPDA, and N. KY ADDs, and the South Central region is Barren River, Lincoln Trail, and Lake Cumberland ADDs.

⁷Medicaid Member Year is derived by summing the number of individuals eligible for Medicaid in each county for each year, 2000-2010. A Medicaid recipient is counted for each year they are eligible. For example, a Medicaid recipient who was eligible in 2000, 2005, and 2010 has three member years. Our denominator is the sum of all member years for a county, 2000-2010. The numerator is the number of grams dispensed.

