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Antipsychotics: Broadened Use Brings Concerns

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The use of antipsychotics among children increased more rapidly than in adults.

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

Antipsychotics dispensed to minorities was nearly 3 times that of Whites in 2010.

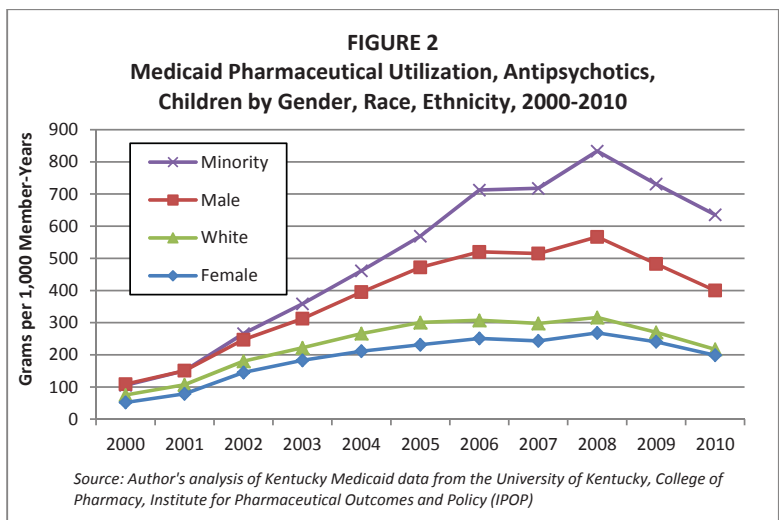
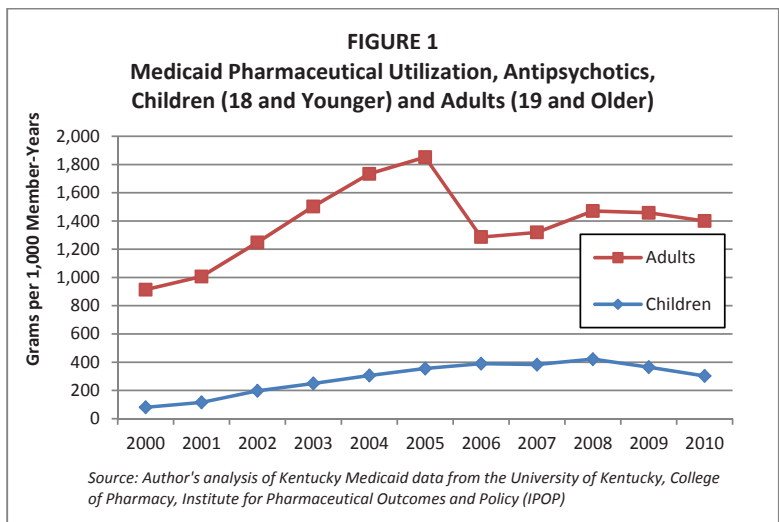
There are future public health, public finance, and public policy implications.

Of the hundreds of pharmaceuticals available through Medicaid from 2000-2010, the single most costly therapeutic class for both children and adults was antipsychotics.¹ Recent media attention in Kentucky, however, has focused on the alleged misuse of these drugs—not their cost.² While these drugs undoubtedly help many of the individuals who use them, there is a growing sense that antipsychotics are routinely prescribed unnecessarily.³ Studies show that a majority of children receiving antipsychotics have not been diagnosed with a condition for which the FDA has approved their use, such as schizophrenia.⁴ Instead, children exhibiting disruptive or aggressive behavior, without a FDA-approved diagnosis, for example, are receiving these drugs.⁵ From 2000 to 2010, the number of grams dispensed in Kentucky per 1,000 member-years to Medicaid-eligible adults increased from 914 grams to 1,400—an increase of 53% (see Figure 1).⁶ Children, on the other hand, experienced a more rapid increase from 81 to 302 grams—an increase of over 270%.

In a collaborative effort between the College of Communication and Information, Center for Business and Economic Research, and Institute for Pharmaceutical Outcomes and Policy—and funded by the Foundation for a Healthy Kentucky—we examine the Medicaid antipsychotic pharmaceutical outpatient utilization by children (18 and younger) and adults (19 and older) from 2000 to 2010.⁷

Among children the largest increase in dispensed grams was among minorities, which increased to 635 grams in 2010, compared to 217 grams for Whites (Figure 2).⁸ Among children, Marion County has the highest usage at 599 grams while Caldwell County shows the highest amount for adults at 3,954 grams. By comparison, the counties with the lowest usage are a fraction of these totals (Table 1, Figure 3, and Figure 4).

The long-term developmental, metabolic, and public finance effects of children taking antipsychotics are not fully understood and could have important future public policy consequences.





Marion County has the highest usage for children at 599 grams, while Caldwell County has the highest for adults at nearly 4,000 grams.

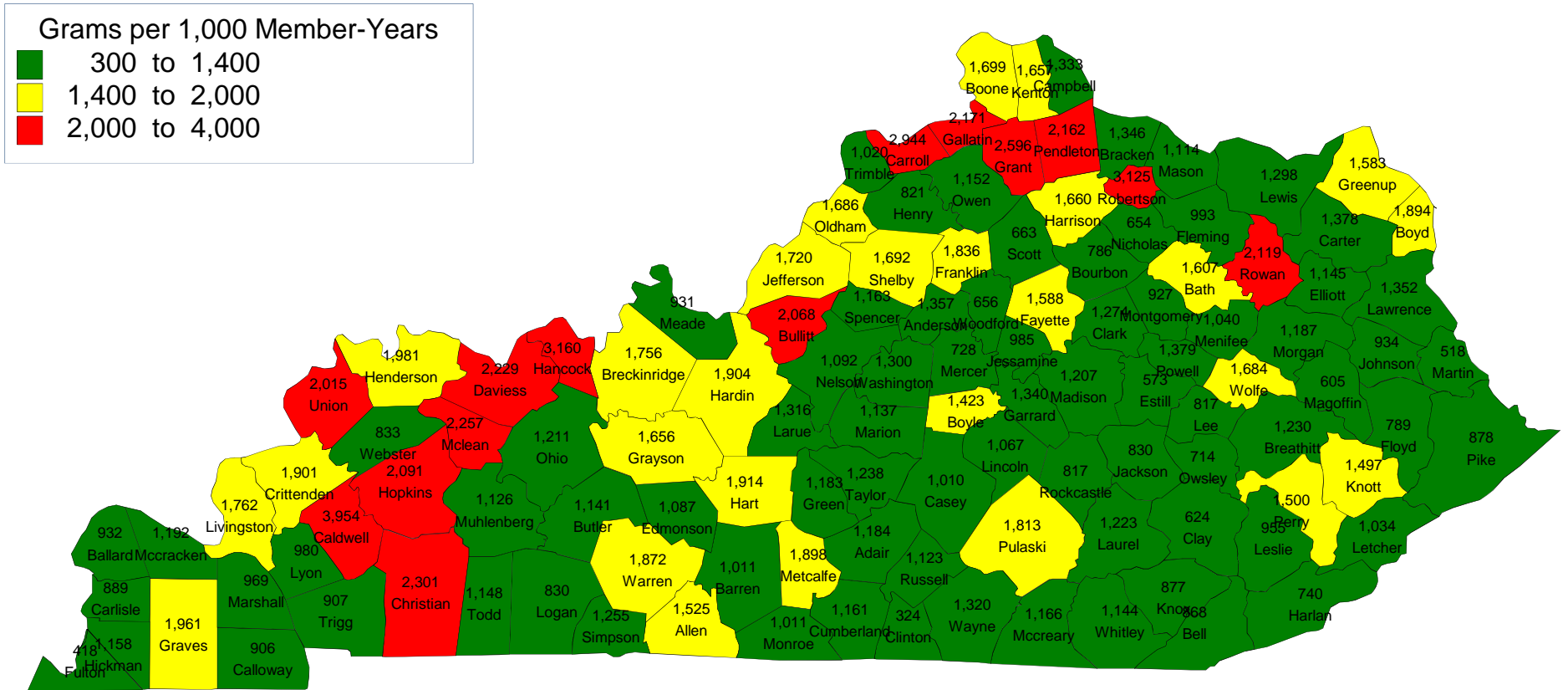
County	Grams per 1,000 Member Years		County	Grams per 1,000 Member Years		County	Grams per 1,000 Member Years	
	Children	Adults		Children	Adults		Children	Adults
Adair	173	1,184	Grant	293	2,596	McLean	303	2,257
Allen	221	1,525	Graves	173	1,961	Meade	363	931
Anderson	444	1,357	Grayson	325	1,656	Menifee	202	1,040
Ballard	267	932	Green	211	1,183	Mercer	242	728
Barren	303	1,011	Greenup	213	1,583	Metcalfe	406	1,898
Bath	436	1,607	Hancock	257	3,160	Monroe	216	1,011
Bell	78	868	Hardin	520	1,904	Montgomery	587	927
Boone	505	1,699	Harlan	58	740	Morgan	284	1,187
Bourbon	303	786	Harrison	215	1,660	Muhlenberg	245	1,126
Boyd	439	1,894	Hart	243	1,914	Nelson	490	1,092
Boyle	353	1,423	Henderson	426	1,981	Nicholas	512	654
Bracken	448	1,346	Henry	254	821	Ohio	417	1,211
Breathitt	154	1,230	Hickman	192	1,158	Oldham	341	1,686
Breckinridge	337	1,756	Hopkins	212	2,091	Owen	181	1,152
Bullitt	258	2,068	Jackson	103	830	Owsley	47	714
Butler	230	1,141	Jefferson	349	1,720	Pendleton	407	2,162
Caldwell	320	3,954	Jessamine	270	985	Perry	272	1,500
Calloway	267	906	Johnson	111	934	Pike	61	878
Campbell	242	1,333	Kenton	502	1,657	Powell	229	1,379
Carlisle	47	889	Knott	182	1,497	Pulaski	348	1,813
Carroll	296	2,944	Knox	128	877	Robertson	329	3,125
Carter	231	1,378	Larue	262	1,316	Rockcastle	177	817
Casey	300	1,010	Laurel	172	1,223	Rowan	424	2,119
Christian	189	2,301	Lawrence	175	1,352	Russell	293	1,123
Clark	288	1,274	Lee	117	817	Scott	239	663
Clay	129	624	Leslie	46	955	Shelby	358	1,692
Clinton	118	324	Letcher	150	1,034	Simpson	154	1,255
Crittenden	66	1,901	Lewis	159	1,298	Spencer	307	1,163
Cumberland	84	1,161	Lincoln	279	1,067	Taylor	241	1,238
Daviess	548	2,229	Livingston	226	1,762	Todd	146	1,148
Edmonson	223	1,087	Logan	187	830	Trigg	422	907
Elliott	282	1,145	Lyon	456	980	Trimble	282	1,020
Estill	146	573	Madison	295	1,207	Union	523	2,015
Fayette	376	1,588	Magoffin	183	605	Warren	415	1,872
Fleming	441	993	Marion	599	1,137	Washington	458	1,300
Floyd	124	789	Marshall	272	969	Wayne	87	1,320
Franklin	440	1,836	Martin	136	518	Webster	331	833
Fulton	162	418	Mason	381	1,114	Whitley	152	1,144
Gallatin	354	2,171	McCracken	251	1,192	Wolfe	360	1,684
Garrard	219	1,340	McCreary	178	1,166	Woodford	583	656

Note: Antipsychotics are therapeutic classes H7T, H7X, H7P, H7R, H7U, H7S, H7O, and H2G.
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). ²Valarie Honeycutt Spears, "Ky officials work to reduce use of antipsychotics in nursing homes," *Lexington Herald-Leader*, June 12, 2012, and "Workers told state of problems at Ky boys' home," *Lexington Herald-Leader*, June 16, 2012. ³For example, the Centers for Medicare & Medicaid Services (CMS), which administers these programs for the U.S. Department of Health and Human Services, recently launched a new initiative designed to decrease their overuse in nursing homes. ⁴Stephen Crystal, et al., "Broadened Use of Atypical Antipsychotics: Safety, Effectiveness, And Policy Challenges," *Health Affairs*, 28, no. 5 (2009):w770-w781. ⁵Ibid. 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. Also, Medicaid 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. ⁷Antipsychotics are the therapeutic classes of H7T, H7X, H7P, H7R, H7U, H7S, H7O, & H2G. 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. ⁸Minorities include Blacks, Hispanics, Asians, and other.

FIGURE 4
Dispensed Antipsychotics in Kentucky, Medicaid-Eligible Adults, 2000-2010



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