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Availability of Buprenorphine Treatment in Kentucky

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University of
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“Availability of Buprenorphine Treatment in Kentucky”

November 21, 2016

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Note: Mr. Myers completed much of this report to fulfill the requirement of a Chellgren Student Fellow project under the mentorship of Dr. Borders.

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About the Institute for Rural Health Policy (IRHP):

The IRHP was founded in 2013 as a joint effort by Ty Borders and Brady Reynolds serving as Co-Directors and Foundation for a Healthy Kentucky Endowed Chairs in Rural Health Policy. It conducts rural health services and policy research to inform rural health practitioners, managers, and policy makers in Kentucky.

Background on Opioid Use and Buprenorphine

According to the Centers for Disease Control and Prevention (CDC), drug overdose deaths involving opioids have more than quadrupled in the past 15 years, driven by increases in both prescription and illicit opioid abuse.¹ The state of Kentucky is no exception to the growing prevalence of opioid abuse. Since 2000, Kentucky resident drug overdose deaths by prescription opioids and heroin have steadily increased, and from 1999 to 2008 admissions to substance abuse treatment programs for opioid addiction increased by 900%.^{2,3} Rates of hospitalizations and deaths due to opioid abuse are highest in rural counties, particularly those in eastern Kentucky.^{2,4}

In 2000, the United States Congress approved the Drug Addiction Treatment Act (DATA) to provide physicians more independence to prescribe buprenorphine to treat opioid addiction.⁵ Buprenorphine is an opioid partial agonist that diminishes dependency to opioids, has lower potential for misuse than methadone, and is much safer in the case of drug overdose.⁵ Buprenorphine can be prescribed in a variety of medical settings and treatment is administered in 3 phases.⁵ The induction phase is within 12 to 24 hours of the patient refraining from opioid use and is monitored in the physician's practice setting.⁵ Next is the stabilization phase in which the patient's withdrawal symptoms are minimal.⁵ During this phase, buprenorphine doses can be adjusted or taken on an alternating schedule.⁵ The maintenance phase is then used to standardize dosage and set a personal schedule for treatment completion.⁵ After completing an 8-hour online training through the Substance Abuse and Mental Health Services Administration (SAMHSA) and approval by the DEA, physicians are able to treat up to 30 patients within the first year of certification or up to 100 patients thereafter.⁵ A recent federal regulation raised the limit to 275 patients among physicians who already had a 100-patient waiver and had a history of prescribing buprenorphine to 100 patients for a minimum of 1 year.⁶

As of February 2015, only 2.2% of U.S. physicians possessed a waiver to prescribe buprenorphine.⁷ A national survey found that physicians often do not maximize their waiver limit, with an average of 39 patients being treated by a physician with a 100-patient waiver.⁸ In terms of distribution, 53.4% of U.S. counties are without a waived physician, leaving approximately 30 million Americans with potentially limited access to buprenorphine treatment.⁷ Additionally, waived physicians are predominant in the specialties of psychiatry and primary care at 41.6% and 36.7%, respectively.⁷ In a separate study in the state of Washington, it was found that primary care physicians represent the plurality of waived physicians in urban areas and the majority of waived physicians in rural counties. Also, almost all specialists were located in urban counties.⁹

Purpose of the Report

Drug overdose and substance use treatment admissions data indicate that opioid use is problematic in Kentucky, but little information exists about the geographic availability of buprenorphine treatment across the state. Furthermore, there is even less information about the characteristics of the physicians prescribing buprenorphine. This report describes the availability of buprenorphine treatment in Kentucky.

Methods

Information on DATA-Waivered Physicians

We obtained the name, type of medical degree, and practice telephone number and address for each DATA-waivered physician from the Substance Abuse and Mental Health Services Administration (SAMHSA) publicly available buprenorphine treatment physician locator database.

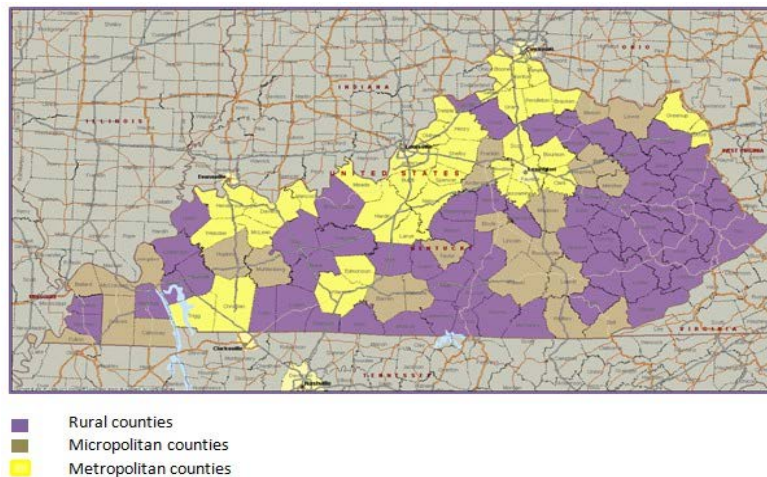
Of the 643 waived physicians in the state of Kentucky as of October 2015, 424 (65.9%) were publicly listed in the SAMHSA database (located at www.samhsa.gov/medication-assisted-treatment/physician-program-data/treatment-physician-locator).

We obtained additional information about these physicians, including their age, gender, specialty, and additional locations of practice, from the publicly available Healthgrades website (located at www.healthgrades.com). Using these 2 data sources, we categorized physician practices into primary care or specialty care categories. The specialty category was further divided into 7 subgroups for selected analyses.

Availability by Metropolitan, Micropolitan, and Other Non-Metropolitan Areas

To determine the availability of buprenorphine treatment in all 120 Kentucky counties, each physician's city was matched to a corresponding county. Counties were categorized as metropolitan, micropolitan, or other non-metropolitan according to U.S. Office of Management and Budget definitions as shown in Figure 1.¹⁰ Metropolitan counties include an urban core of at least 50,000 persons. Micropolitan counties are those with a population of at least 10,000 but fewer than 50,000, and other non-metropolitan rural counties are those with a population of fewer than 10,000 persons. Of the 120 counties in Kentucky, 35 are designated as metropolitan, 27 as micropolitan, and 58 as other.

Figure 1. Metropolitan, Micropolitan, and Other Non-Metro Counties in Kentucky



Analysis

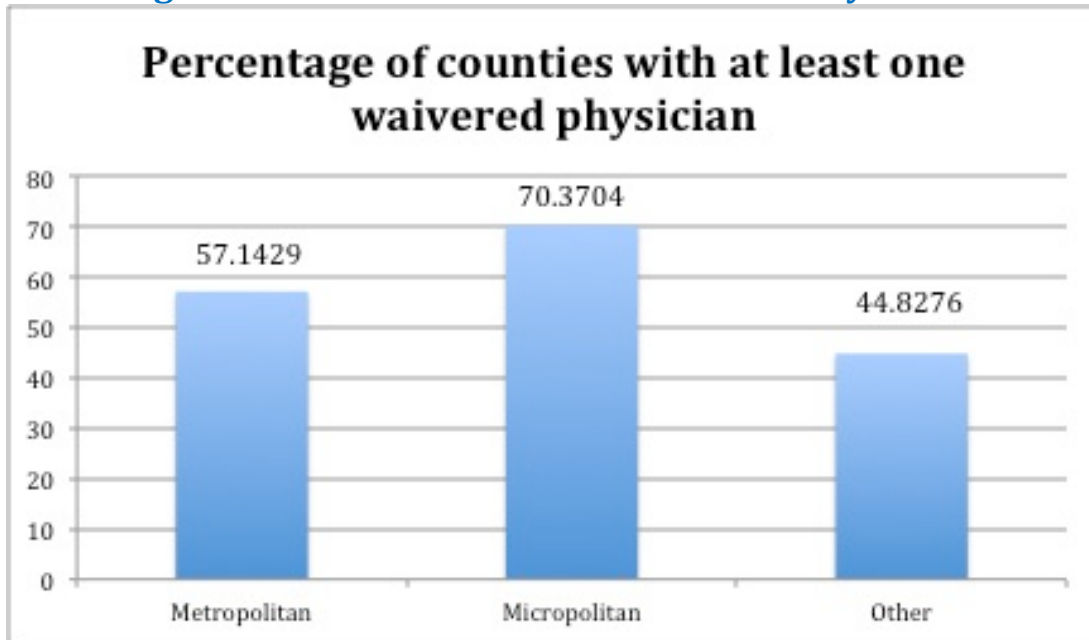
We calculated the number of DATA-waivered physicians per 10,000 persons residing in each of Kentucky's 120 counties. We then compared the mean number of waived physicians per 10,000 persons and the percentage of counties with at least one waived physician across metropolitan, micropolitan, and other non-metropolitan status. Lastly, we compared the specialty composition across metropolitan, micropolitan, and other non-metropolitan areas.

Results

Waivered Physicians by Metro/Micro/Other Non-Metro Areas

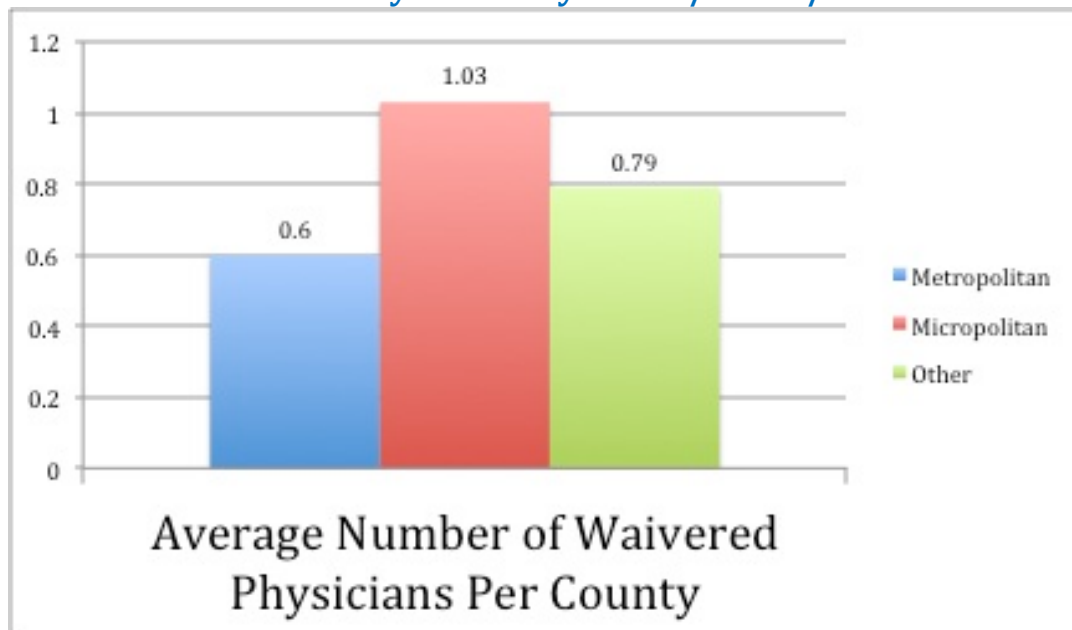
As shown in Figure 2, 57% of metropolitan, 70% of micropolitan, and 45% of other non-metropolitan counties had 1 or more waivered physicians in 2015.

Figure 2. Percentage of Counties with a DATA-Waivered Physician



Moreover, as shown in Figure 3, micropolitan counties had the highest mean number of waivered physicians per 10,000 persons (1.03), followed by means of 0.60 and 0.79 waivered physicians per 10,000 persons in metropolitan and other non-metropolitan counties, respectively.

Figure 3. Mean # of Waivered Physicians by Metro/Micro/Other Status



Waivered Physicians by Specialty

As shown in Table 1, 41.3% of waived physicians were primary care physicians; the remaining 58.7% were other specialists. Psychiatry represented 23.3% of all waived physicians in Kentucky in 2015.

Table 1. Number and % of Waivered Physicians by Primary Specialty

Total = 424, %	Specialty, # in specialty	Category	# (%) in specialty		
Primary Care, n=175 (41.3%)	Family Medicine, 102	Primary Care	175 (41.3%)		
	General Practice, 2				
	Geriatric Medicine, 1				
	Hospital Medicine, 1				
	Internal Medicine, 68				
	Pediatrics, 1				
Specialty Care, n=249 (58.7%)	Addiction Psychiatry, 5	Psychiatry	99 (23.3%)		
	Adult Psychiatry, 1				
	Child & Adolescent Psychiatry, 13				
	Clinical Psychiatry, 1				
	Forensic Psychiatry, 3				
	General Psychiatry, 1				
	Psychiatry, 75				
	Obstetrics & Gynecology, 18			Reproductive Medicine	23 (5.4%)
	Reproductive Endocrinology & Infertility, 1				
	Maternal-Fetal Medicine, 3				
Neonatal/Perinatology, 1					
	Diagnostic Radiology, 5	Radiology	9 (2.1%)		
	Radiology, 2				
	Nuclear Radiology, 1				
	Vascular & Intervention Radiology, 1				
	Anesthesiology, 35	Pain Management	40 (9.4%)		
	Pain Medicine, 5				
	Critical Care Medicine, 2	Emergency Medicine	27 (6.4%)		
	Emergency Medicine, 25				
	Bariatric Surgery, 1	Surgery	16 (3.8%)		
	General Surgery, 7				
	Orthopedic Surgery, 8				
	Addiction Medicine, 4	Other	35 (8.3%)		
	Anatomic & Clinical Pathology, 1				
	Cardiology, 1				
	Endocrinology, Diabetes & Metabolism, 1				
	Infectious Disease Medicine, 1				
	Nephrology, 3				
	Neurology, 2				
	Ophthalmology, 1				
	Osteopathic Manipulative Therapy, 4				
	Physical Medicine & Rehabilitation, 5				
	Preventive Medicine, 2				
	Psychosomatic Medicine, 1				
	Pulmonology, 1				
	Radiation Oncology, 1				
	Rheumatology, 2				
	Sleep Medicine, 1				
	Sports Medicine, 1				
	Urology, 3				

Waivered Physician Specialists by Metro/Micro/Other Rural Areas

Table 2 describes the distribution of specialists among metropolitan, micropolitan, and other non-metropolitan counties. In other non-metro counties, 71.95% of waived physicians were primary care physicians, compared to 45.78% and 30.12% in micropolitan and metropolitan counties, respectively. In other words, the majority of waived physicians in metropolitan and micropolitan counties were specialists, with 29.73% of waived physicians in metropolitan counties being psychiatrists.

Table 2. Waivered Physician Specialists by Metro/Micro/Other Non-Metro Status

Specialty	Metropolitan n=259, (61.1%)	Micropolitan n=83, (19.6%)	Other n=82, (19.3%)	Total n=424, (100%)
Primary Care	78 (30.12%)	38 (45.78%)	59 (71.95%)	175 (41.3%)
Psychiatry	77 (29.73%)	16 (19.28%)	6 (7.32%)	99 (23.3%)
Reproductive Medicine	14 (5.41%)	4 (4.82%)	5 (6.10%)	23 (5.4%)
Radiology	7 (2.70%)	2 (2.41%)	0 (0%)	9 (2.1%)
Pain Management	33 (12.74%)	6 (7.23%)	1 (1.22%)	40 (9.4%)
Emergency Medicine	18 (6.95%)	6 (7.23%)	3 (3.66%)	27 (6.4%)
Surgery	10 (3.86%)	2 (2.41%)	4 (4.88%)	16 (3.8%)
Other	22 (8.49%)	9 (10.84%)	4 (4.88%)	35 (8.3%)

Conclusion

Nearly half (46%) of Kentucky’s counties do not have a waived physician; approximately 1 million Kentuckians, or a quarter of the population, are without immediate access to buprenorphine. Moreover, potential access to buprenorphine is not well-distributed across metropolitan, micropolitan, and other non-metropolitan areas within the state.

Nationally, 41.6% of waived physicians are psychiatrists.⁷ However, only 23.3% of waived physicians in Kentucky are psychiatrists and 77.8% of those practice in metropolitan counties. Thus, many micropolitan and other non-metropolitan residents may face greater barriers to buprenorphine treatment from psychiatrists, which are arguably the best-trained physician group for diagnosing and treating substance abuse.

Because SAMHSA allows physicians the option to publicly post their information on the SAMHSA database, we only had access to information for approximately two-thirds of waived physicians. Thus, we likely underestimated the average number of waived physicians. Additional research is warranted to further investigate the availability of and demand for buprenorphine in Kentucky.

In conclusion, several steps could be taken to improve the availability of buprenorphine treatment across Kentucky. Physicians who have a waiver should be encouraged to maximize the number of patients they may treat. Currently non-waivered physicians practicing in areas with high rates of opioid abuse may need additional training on how to provide buprenorphine and associated counseling services.

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