RUPRI Center for Rural Health Policy Analysis
Rural Policy Brief

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Update on Rural Independently Owned Pharmacy Closures in the United States, 2003-2021

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Background and Purpose

Nearly half of the pharmacies located in rural areas are sole, independently owned retail stores. These rural pharmacies have had higher rates of closure than pharmacies in metropolitan areas. Rural independent pharmacy owners have reported low reimbursement rates and delays in payments as significant challenges to remaining open.[1] Competition from mail-order pharmacy services and exclusion from Medicare Part D Plan preferred networks have also negatively affected these rural pharmacies. Furthermore, difficulties among rural pharmacies in handling more complex patient cases in a growing elderly population and the lack of reimbursement for pharmacy-provided health services add to the challenges of staying open.[1,2] This policy brief builds on the history of RUPRI projects examining the provision of pharmacy services and updates pharmacy closure in rural areas of the United States.

Key Findings

- Between 2003 and 2021, the number of retail pharmacies declined in noncore rural areas by 9.8 percent, and in rural micropolitan areas by 4.4 percent, while the number in metropolitan areas increased by 15.1 percent during the same period.
- Between 2003 and 2021, the number of independently owned retail pharmacies declined in noncore areas by 16.1 percent, and in micropolitan areas by 9.1 percent, while the number in metropolitan areas increased by 28.2 percent during the same period.
- Between 2003 and 2021, the number of chain pharmacies[i] grew in all three geographies, with the largest growth occurring in metropolitan areas (noncore: 4.6 percent, micropolitan: 3.7 percent, metropolitan: 10.5 percent).
- Franchise pharmacies have never represented a large segment of the market (1.1 percent of all retail pharmacies in 2021), but their number declined dramatically in all three geographies from 2003 to 2021 (noncore: 47.4 percent, micropolitan: 70.5 percent, metropolitan: 38.2 percent).

Data

Monthly data (including location, services, pharmacy classification, and more) on all institutions providing pharmacy services in the 50 states and the District of Columbia (nearly 81,000 institutions as of December 2021) from March 2003 through December 2021 were obtained from the National Council for Prescription Drug Programs.[3] The data were processed to identify existing

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retail pharmacies: independent, chain, and franchise.[i] Other pharmacies, including government pharmacies (e.g., Indian Health Service or military pharmacies) and alternate dispensing sites (e.g., physician offices, emergency departments, rural health facilities, etc.), were excluded from this analysis, as were mail-order pharmacies. Pharmacy locations were classified as "metropolitan," "micropolitan," and "noncore" using the pharmacy ZIP code and RUCA classifications.[ii]

Findings

Table 1 shows counts of all retail pharmacies—independent, chain, and franchise—in noncore, micropolitan, and metropolitan areas from 2003 through 2021. Figures 1 and 2 show the trends of all retail pharmacy counts, including a breakdown in noncore, micropolitan, and metropolitan areas. The number of all retail pharmacies declined sharply between 2006 and 2008. Following that, noncore and micropolitan counts remained relatively consistent until 2015 while metropolitan pharmacy counts steadily increased. After 2015, retail pharmacy counts in all three geographies began a slow, continued decline. The same pattern of growth and decline is exaggerated when considering only independent retail pharmacies. Chain pharmacies saw relatively consistent growth (across all three geographies) from 2003 until 2014, when a gradual decline began. This was followed by a sharper decline, particularly in noncore areas, from 2017-2019.

Franchise pharmacies have always represented a small proportion of the pharmacy market, so there is a lot of volatility in their counts over time, but the general count trend has been in decline since 2003.

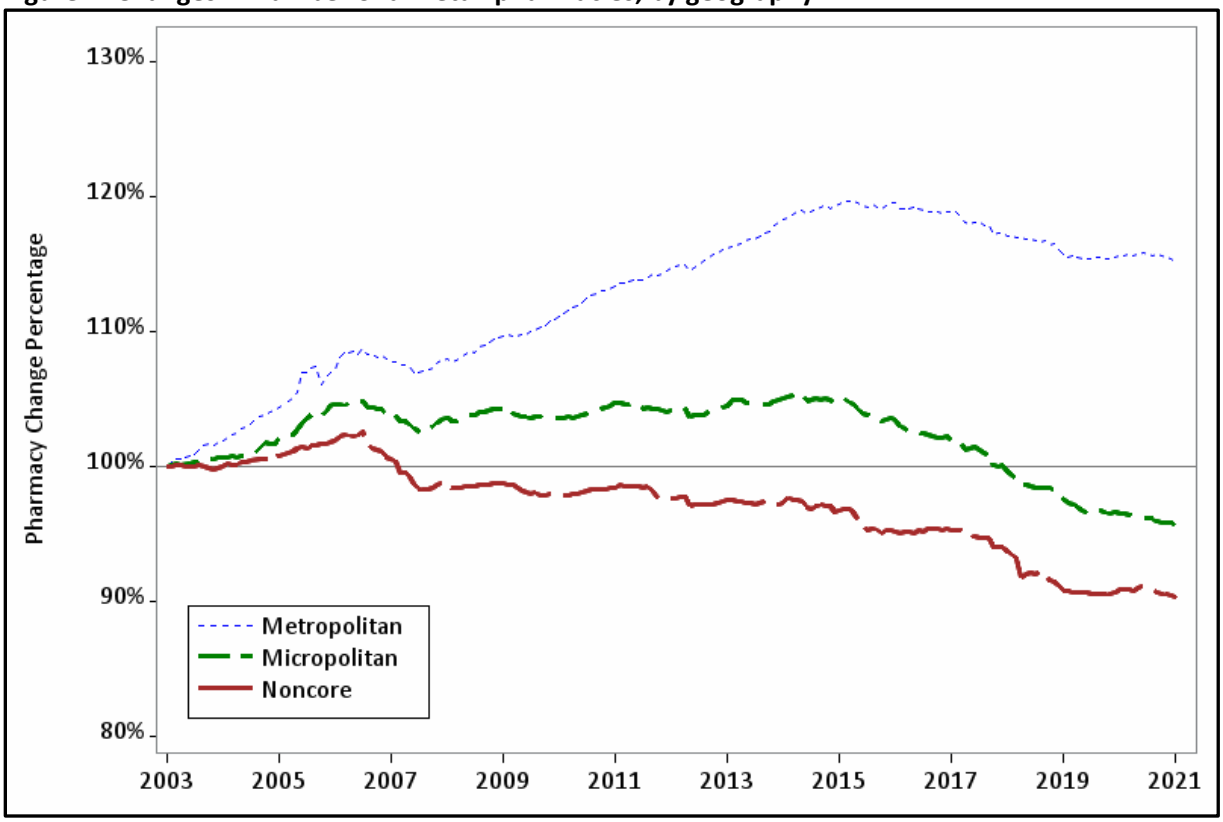
Figures 3 and 4 (in the appendix to this report) show changes in the number of all retail pharmacies and in the number of independent pharmacies by Census region.

Table 1. Annual* retail pharmacy counts, by geography

	All Retail Pharmacies			Independent Retail Pharmacies			Chain Pharmacies			Franchise Pharmacies		
	Nonc	Micro	Metro	Nonc	Micro	Metro	Nonc	Micro	Metro	Nonc	Micro	Metro
2003	5,882	5,876	43,810	3,698	2,441	13,671	2,030	3,208	29,301	154	227	838
2004	5,882	5,911	44,652	3,649	2,431	13,834	2,088	3,268	30,012	145	212	806
2005	5,927	5,995	45,732	3,669	2,463	14,233	2,123	3,342	30,736	135	190	763
2006	5,991	6,147	46,920	3,678	2,538	14,754	2,205	3,462	31,592	108	147	574
2007	5,912	6,101	47,195	3,491	2,427	14,203	2,309	3,531	32,411	112	143	581
2008	5,807	6,088	47,290	3,349	2,341	13,852	2,344	3,627	32,875	114	120	563
2009	5,807	6,126	48,014	3,315	2,333	14,230	2,382	3,677	33,235	110	116	549
2010	5,756	6,084	48,648	3,241	2,278	14,517	2,395	3,674	33,555	120	132	576
2011	5,788	6,149	49,638	3,244	2,322	15,331	2,425	3,697	33,764	119	130	543
2012	5,742	6,119	50,225	3,198	2,284	15,674	2,439	3,721	34,038	105	114	513
2013	5,736	6,138	50,887	3,182	2,299	16,045	2,451	3,736	34,375	103	103	467
2014	5,723	6,172	51,828	3,148	2,336	16,711	2,477	3,742	34,674	98	94	443
2015	5,690	6,161	52,300	3,138	2,322	17,233	2,459	3,748	34,644	93	91	423
2016	5,597	6,076	52,368	3,077	2,292	17,324	2,424	3,689	34,567	96	95	477
2017	5,601	5,991	52,063	3,099	2,291	17,449	2,412	3,618	34,163	90	82	451
2018	5,511	5,852	51,285	3,058	2,274	17,361	2,367	3,499	33,479	86	79	445
2019	5,340	5,733	50,701	3,061	2,257	17,122	2,174	3,389	32,882	105	87	697
2020	5,343	5,666	50,623	3,110	2,239	17,555	2,143	3,351	32,512	90	76	556
2021	5,307	5,615	50,417	3,102	2,220	17,520	2,124	3,328	32,379	81	67	518

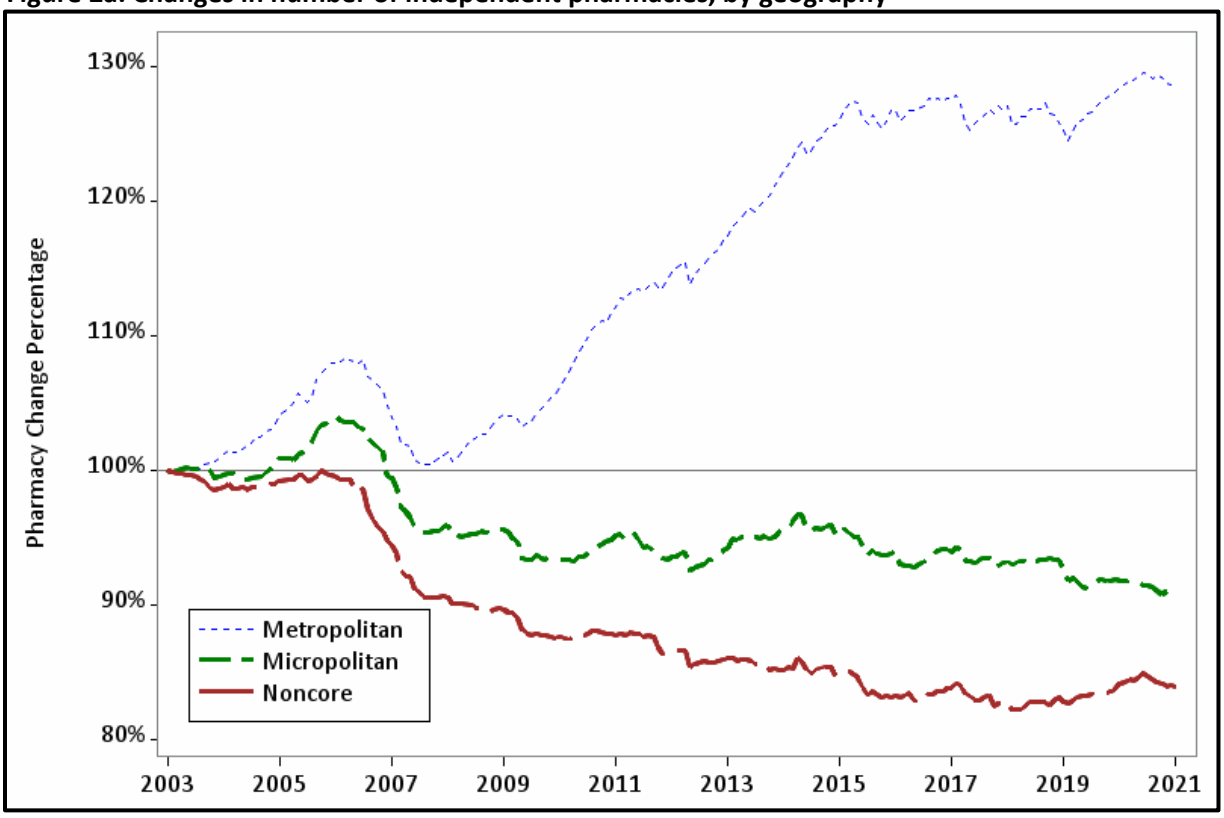
*Counts as of December in each year

Figure 1. Changes in number of all retail pharmacies, by geography



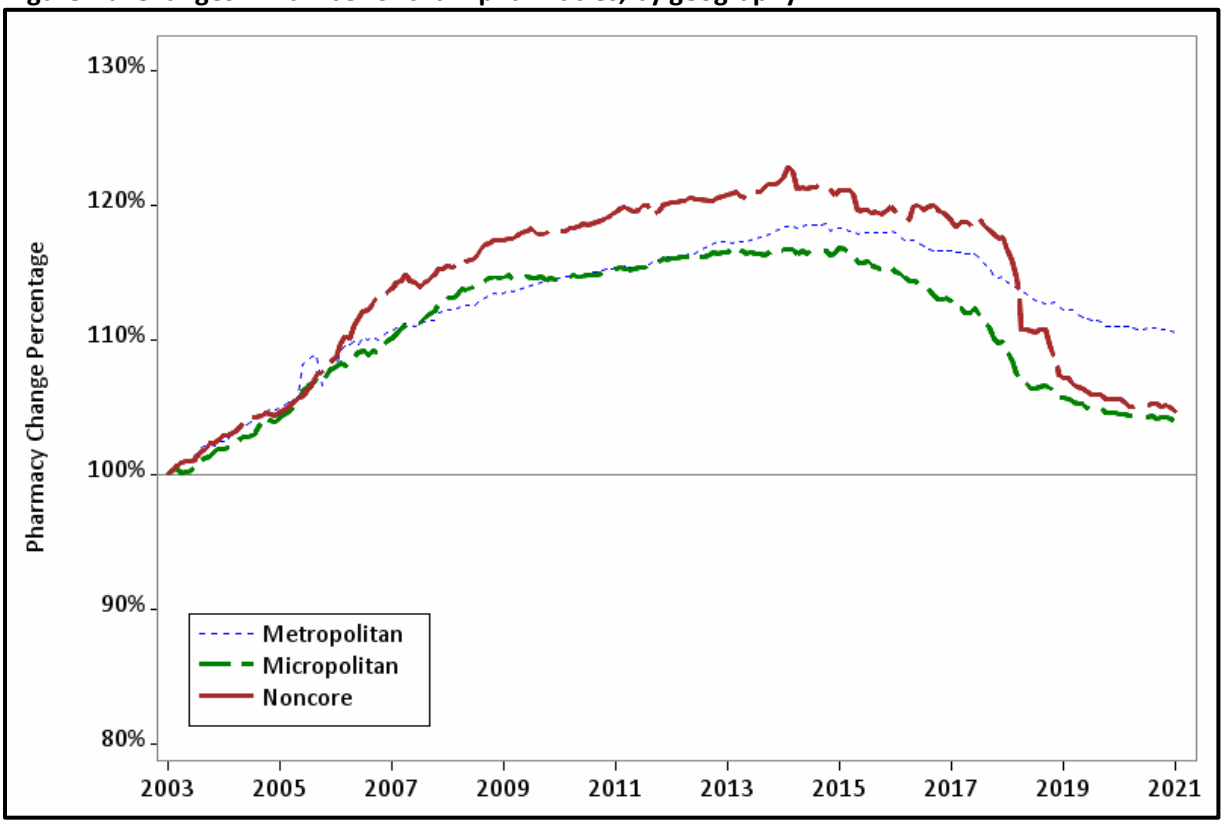
Data Source: RUPRI Center analysis of NCPDP data

Figure 2a. Changes in number of independent pharmacies, by geography



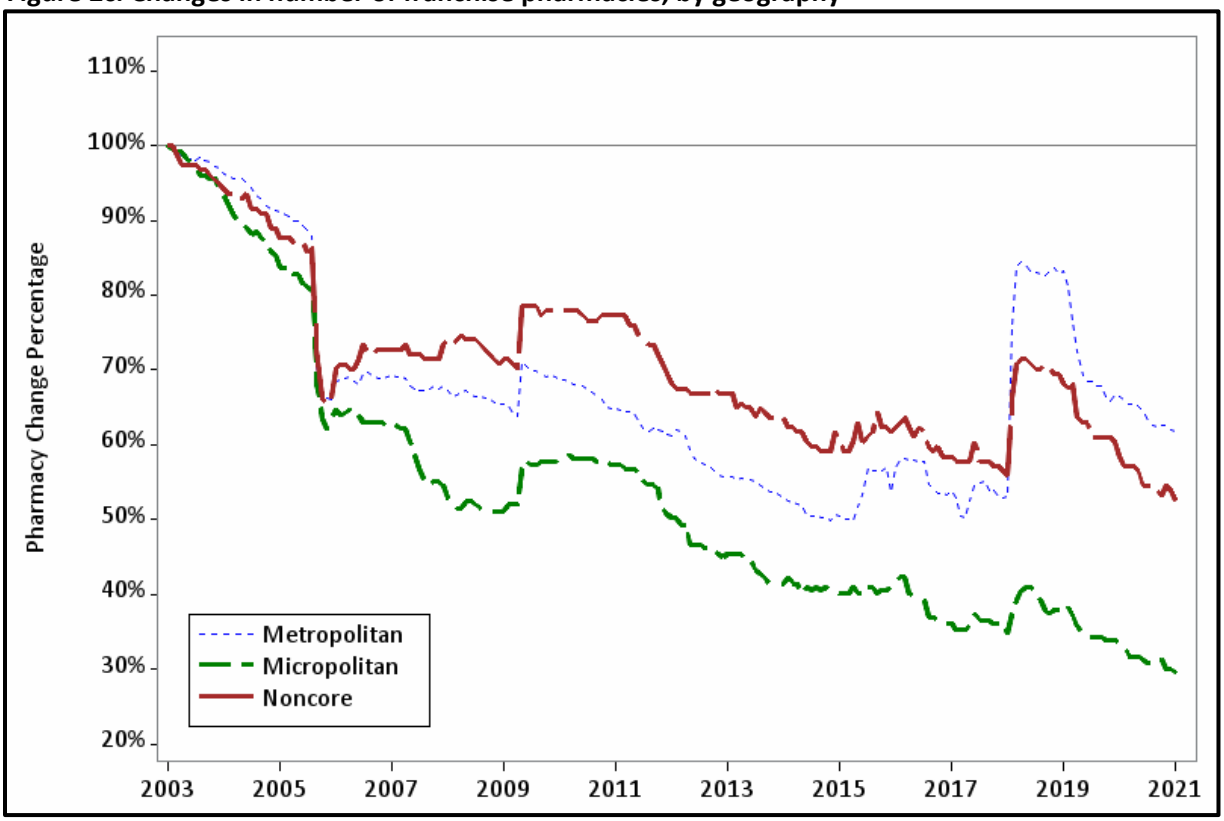
Data Source: RUPRI Center analysis of NCPDP data

Figure 2b. Changes in number of chain pharmacies, by geography



Data Source: RUPRI Center analysis of NCPDP data

Figure 2c. Changes in number of franchise pharmacies, by geography



Data Source: RUPRI Center analysis of NCPDP data

Discussion

Financial hardships experienced by rural independent pharmacies make them susceptible to closing, many times without a viable replacement. Rural towns often have only one pharmacy serving the community, often dependent on a single pharmacist/owner to maintain the business. Because pharmacy workforce shortages are common in rural areas, recruiting and replacing these pharmacists has been difficult.[4] Such closures have forced rural populations to travel greater distances (10 or more miles) to obtain medications[5]—a particular hardship for low-income individuals, especially the elderly. While mail-order pharmacy services are a growing option, pharmacy closures limit or eliminate access to pharmacist-provided clinical services. Pharmacies are often the sole source in rural areas for obtaining health services.[1,2] Outside of preparing and dispensing prescription drugs, pharmacists also provide services for medication optimization, wellness and prevention, chronic and acute care management, patient education and other services. Blood pressure and glucose screenings, fall risk assessments, diabetes education and management, and immunization service are some examples of pharmacist-provided services.[6] Rural communities utilize independent pharmacies as a source for obtaining health services and consequently the impact of rural independent pharmacy closures significantly limits or removes this level of access.

In recent years (2020 and 2021), changes in the distribution of large pharmacy chains, as well as developments in federal and state policies, may be signaling a promising future for rural independent pharmacies. The COVID-19 pandemic, in part, may have played a role in promoting these changes. A December 2021 Kaiser Health News article highlighted new independent pharmacies opening in rural communities where large pharmacy chains once existed.[7] Pharmacists in several rural towns in Iowa, Montana, and Idaho are filling the voids left in these small towns as large store chains with pharmacies and pharmacy retail chains closed their stores. The growth in online options has been a factor in the closures of large stores in rural areas, and the COVID-19 pandemic may have accelerated the process.[7]

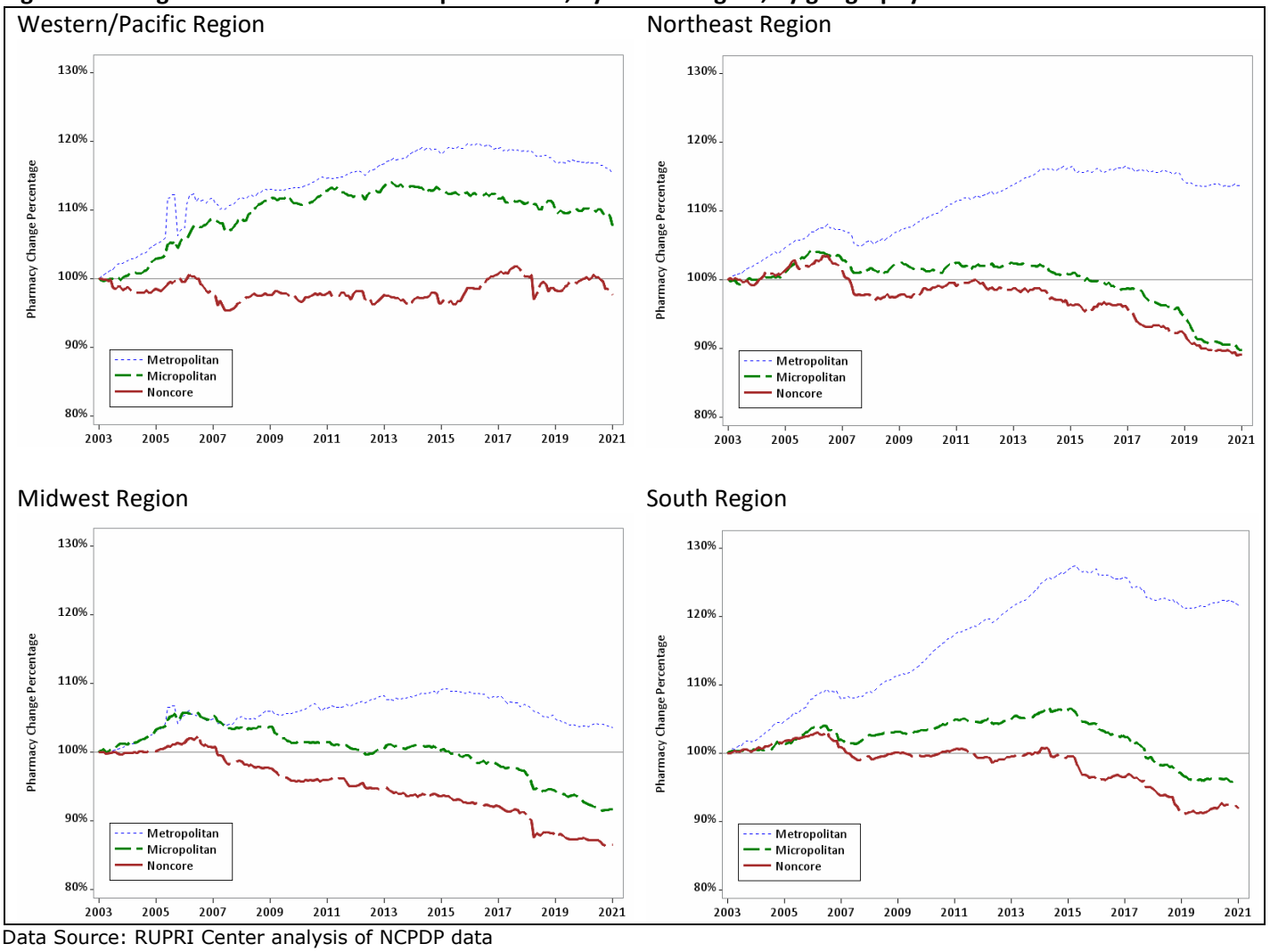
Pharmacists gained an advantage in 2020 with the United States Supreme Court's decision on *Rutledge v Pharmaceutical Care Management Association,* ensuring adequate reimbursements from pharmacy benefit managers (PBM).[8] This decision was an important victory for pharmacies, especially for rural independently owned pharmacies that often receive lower reimbursements than those received by the chain pharmacies that are predominant in urban areas. Eighty percent of rural independently owned pharmacies reported receiving reimbursement below the cost of acquiring and dispensing some drugs.[8] The court decision may provide some relief from the financial hardship experienced by rural independently owned pharmacies.

Overall, the COVID-19 pandemic has underscored the vital role of pharmacists in the provision of health services. The past two years created the opportunity for the pharmacy profession to leverage their efforts to expand their scope of practice, obtain pay for pharmacist-provided patient health services, and gain "provider status" among payers for payment-related issues.[8,9] The National Alliance of State Pharmacy Associations (NASPA) reports over 200 bills introduced in 43 states that address practice expansion such as medication prescription and diagnostic testing, and payment issues for pharmacists.[10] Bills that allow pharmacists to prescribe medication, order diagnostic tests, and receive payments for pharmacist-provided services beyond filling prescriptions have already been signed into law in several states. Organizations such as NASPA and the American Pharmacists Association continue to seek similar legislation to be passed to expand pharmacist practice in other states and improve revenue streams. Support from primary care providers is signaling a change in how these providers view the value of pharmacists. A 2020 report from the Association of American Medical Colleges showed 63.4 percent of surveyed primary care providers expect pharmacists to have a greater role in delivering primary care services, and 77 percent of surveyed patients "agree" or "strongly agree" that the pharmacist is an essential member of the care team.[11]

The closing of large pharmacy chains in rural areas, and the recent legislative changes in states may have positive effects on rural independently owned pharmacies. Nevertheless, rural residents continue to face challenges with access even as rural independent pharmacies are beginning to slowly reopen in the wake of large pharmacy chain departures from these areas. The pandemic has also called attention to the important role pharmacists have in the provision of health services, especially for rural communities. While the data continues to show a decline in the number of pharmacies in rural communities, recent changes in the market and in federal and state policy are worth monitoring to determine if that decline will remain or change course. However, it is important to acknowledge that rural independent pharmacies continue to encounter more challenges than pharmacies in micropolitan and metropolitan areas.

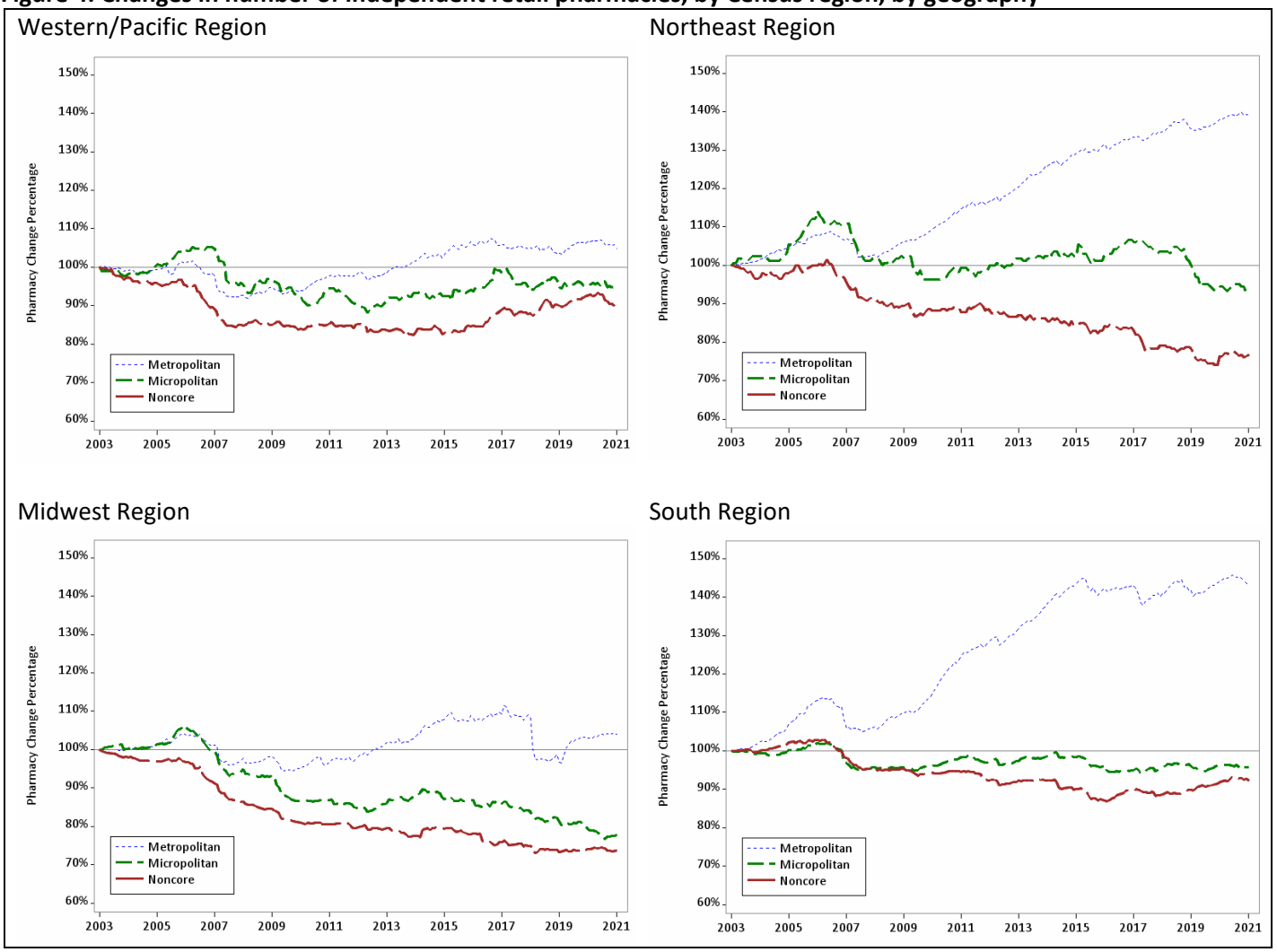
Appendix

Figure 3. Changes in number of all retail pharmacies, by Census region, by geography



Data Source: RUPRI Center analysis of NCPDP data

Figure 4. Changes in number of independent retail pharmacies, by Census region, by geography



Data Source: RUPRI Center analysis of NCPDP data

Notes:

[i] "Independent" pharmacies are those where 1-3 pharmacies are under common ownership. "Chain" pharmacies are part of a group of four or more pharmacies under common ownership. "Franchise" pharmacies are independently owned but with a franchise agreement wherein the franchisor provides services (e.g., training, marketing, etc.) in exchange for a fee from the franchisee.[12]

[ii] U.S. Department of Agriculture, Economic Research Service (2019). "Rural-Urban Commuting Area Codes" Retrieved December 6, 2021, from https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/. ZIP codes were classified as metropolitan (RUCA: 1,2,3), micropolitan (RUCA: 4,5,6), and noncore (RUCA: 7,8,9,10). Note that earlier versions of this report used the 2003 version of the RUCA classifications. The 18-year scope of this project spans the 2010 decennial census, which means that there are a number of ZIP codes that were redefined from one classification to another. This report uses the 2013 version of the RUCA classification, so there may be some apparent inconsistencies with earlier reports.

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