RUPRI Center for Rural Health Policy Analysis
Rural Policy Brief

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Characteristics of Rural Communities with a Sole, Independently Owned Pharmacy

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Introduction and Purpose

Prior RUPRI Center policy briefs have described the role of rural pharmacies in providing many essential clinical services (in addition to prescription and nonprescription medications), such as blood pressure monitoring, immunizations, and diabetes counseling, and the adverse effects of Medicare Part D negotiated networks on the financial viability of rural pharmacies.[1] Because rural pharmacies play such a broad role in health care delivery, pharmacy closures can sharply reduce access to essential health care services in rural and underserved communities. These closures are of particular concern in rural areas served by a sole, independently owned pharmacy (i.e., a pharmacy unaffiliated with a chain or franchise).[1,2]

This policy brief characterizes the population of rural areas served by a sole, independently owned pharmacy. Dependent on a sole pharmacy, these areas are at highest risk to lose access to many essential clinical services.

Key Findings

- In 2014 over 2.7 million people lived in 663 rural communities served by a sole, independently owned pharmacy.
- More than one-quarter of these residents (27.9 percent) were living below 150 percent of the federal poverty level.
- Based on estimates from 2012, a substantial portion of the residents of these areas were dependent on public insurance (i.e., Medicare and/or Medicaid, 20.5 percent) or were uninsured (15.0 percent).
- If the sole, independent retail pharmacy in these communities were to close, the next closest retail pharmacy would be over 10 miles away for a majority of rural communities (69.7 percent).

Methods

Locations of independently owned retail pharmacies in the United States were obtained from the June 2014 pharmacy database maintained by the National Council for Prescription Drug Programs. Primary Care Service Areas (PCSAs), developed as part of the Dartmouth Atlas of Health were used

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as geographic representations of “community”. PCSAs are small, standardized geographic areas created by aggregating ZIP code areas to reflect Medicare patient travel to primary care providers. Because PCSAs reflect health care utilization patterns, they are preferred to other geographic units of analysis (e.g., counties) that place arbitrary spatial limits on health care markets.[3] Data on population characteristics were obtained from the American Community Survey (ACS) five-year estimate data (2008-2012). Data from the ACS were extracted at the ZIP Code Tabulation Area (ZCTA) level and then aggregated into PCSAs. There are a total of 6,542 PCSAs in the United States. Only PCSAs composed entirely of nonmetropolitan ZCTAs (i.e., Rural Urban Commuting Area code designation of four [4] or greater) were retained (n=2,698, 41.2 percent).

Findings

Approximately 16.5 percent (n=445) of rural PCSAs had no retail pharmacy, 53.0 percent (n=1,429) had multiple pharmacies, and 30.5 percent (n=824) had a sole retail pharmacy, of which 80.5 percent (n =663) were sole, independently owned retail pharmacies. While nearly all states had at least one rural PCSA with a sole, independently owned pharmacy, such communities were heavily concentrated in the Midwest and South Central United States (Figure 1). As of December 2012, approximately 2.7 million people lived in a rural PCSA with a sole, independently owned, retail pharmacy. On average, nearly one-fifth (19.2 percent) of people in these rural PCSAs were aged 65 and older, 16.4 percent were disabled, 15.0 percent were uninsured, 7.5 percent were unemployed, and more than one-quarter (27.9 percent) of households had incomes below 150 percent of the federal poverty level (Table 1). Moreover, if the sole, independently owned retail pharmacy were to close, the next closest retail pharmacy would be over ten miles away for the people in 70.4 percent of these rural PCSAs (Table 2).

Figure 1. Location of Rural Primary Care Service Areas in the United States with a Sole, Independently Owned Retail Pharmacy

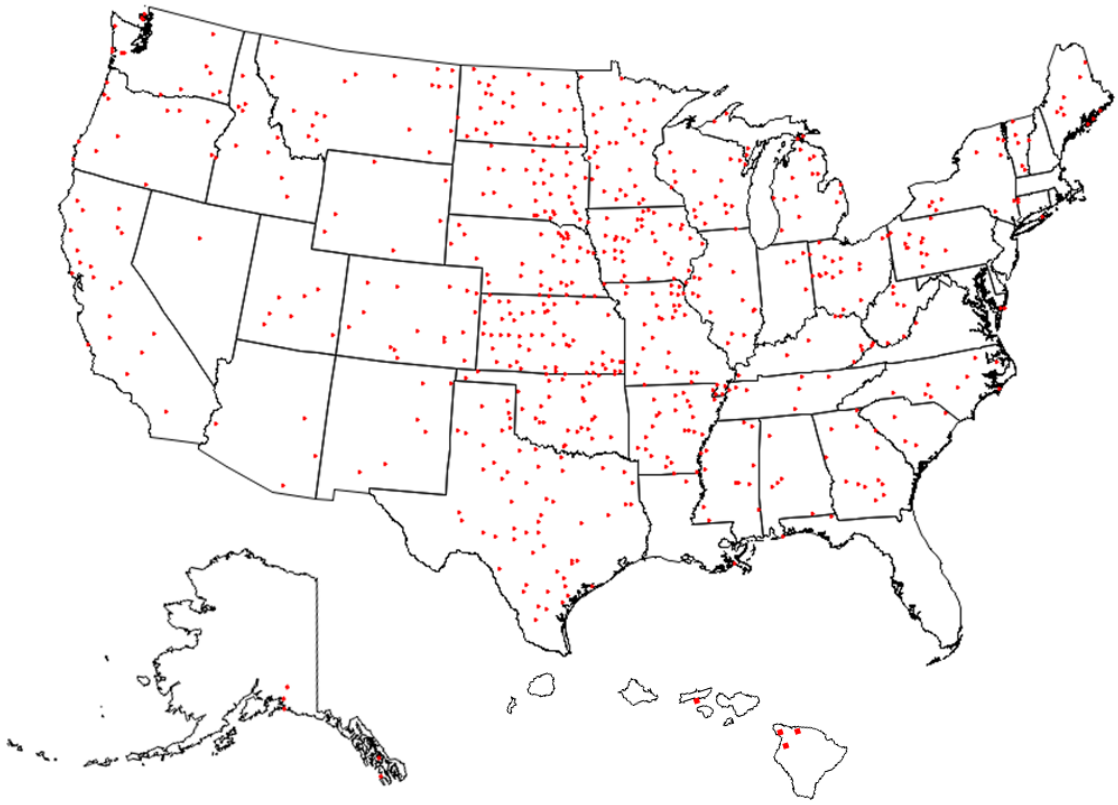

Table 1. Population Characteristics of Rural Primary Care Service Areas with a Sole, Independently Owned Pharmacy

	Mean	Min	Max
Total population	4,230.02	692	15,341
Age			
Under 18 years	22.9%	6.4%	37.6%
18 - 64 years	57.9%	34.7%	91.7%
65+ years	19.2%	1.6%	57.4%
Employment			
Civilian labor force	58.9%	17.4%	81.0%
Employed	92.5%	72.4%	100%
Unemployed	7.5%	0.0%	27.6%
Armed Forces	0.1%	0.0%	3.9%
Not in labor force	41.1%	19.0%	82.6%
Insurance			
Private only	48.7%	14.8%	89.5%
Public only	20.5%	3.7%	51.6%
Private and public	15.8%	1.9%	45.1%
No insurance	15.0%	2.8%	40.0%
Poverty			
Below 100 percent of poverty level	15.7%	1.5%	46.0%
100 to 149 percent of poverty level	12.1%	2.1%	36.4%
At or above 150 percent of poverty level	72.1%	37.4%	96.4%
Disability: Persons with one or more disabilities	16.4%	3.9%	35.5%

Source: American Community Survey, 2012 data

Table 2. Distance to Next Closest Retail Pharmacy, and Population Breakdowns, for Rural Primary Care Service Areas with a Sole, Independently Owned Pharmacy

			Population		
Distance	n	%	Mean	Min	Max
Less than 5 miles	24	3.7	4,608.13	1,781	8,876
5 - 10 miles	168	25.9	4,321.82	1,032	9,927
10 - 20 miles	284	43.8	4,090.81	692	9,922
20 - 40 miles	152	23.5	3,559.36	919	8,909
Over 40 miles	20	3.1	4,245.45	1,514	7,688

Discussion

Implementing Medicare Part D in 2006 contributed to a significant decline in the number of independently owned pharmacies in rural areas.[1] Independent pharmacies continue to face considerable financial challenges in negotiating contracts with Medicare Part D plans (PDPs) necessary for inclusion in the PDPs' preferred networks,[4] created by selectively contracting with some, but not all, pharmacies. By selectively contracting with pharmacies, PDPs lower costs by exchanging consumer volume for discounted prescription drugs and lower beneficiary cost-sharing arrangements.[5] In January 2014, the Centers for Medicare and Medicaid Services (CMS) proposed changing how PDPs contract with pharmacies by requiring PDPs to include in their network any pharmacy willing to accept a PDP's terms and conditions.[6] However, CMS did not implement this change because of strong resistance from Medicare Part D provider stakeholders, such as health plans and pharmaceutical companies.[7]

Rural PDP beneficiaries, especially those in communities with a sole, independently owned pharmacy, may not have access to a nearby preferred network pharmacy. Since their community pharmacies have higher cost-sharing arrangements, rural PDP beneficiaries either forgo needed care or bypass their community pharmacy and get their prescriptions from mail-order pharmacies in their PDP's

preferred network. To continue to serve local populations with Medicare and commercial coverage, some independently owned retail pharmacies in rural communities have signed preferred network contracts with lower, and in some cases negative, margins.[8] The subsequent loss of revenue has placed many independently owned rural pharmacies at risk of closure. Rural areas are much more likely than metropolitan areas to be served by an independent pharmacy, and are much more likely to be served by a single retail pharmacy. The loss of a sole, independent pharmacy in a rural community can have a significant impact on the population's ability to obtain a number of essential clinical services.

This policy brief provides data analyzing the characteristics of the rural communities in the United States most vulnerable to loss of these services—those with a sole, independently owned pharmacy. Those characteristics indicate a vulnerable population, measured in age (more than 19 percent above age 65), and economic circumstances (28 percent below 150 percent of the federal poverty level). For a majority of these rural communities, the next nearest pharmacy is over 10 miles away. This is particularly problematic given that many people living in these communities are those most likely to experience barriers to travel (i.e., low-income, publicly insured, and aged 65 years and older). Consequently, loss of a sole, independent pharmacy may deprive many of these rural community members of access to essential clinical and pharmacy services, even if they can continue receiving medications through other means such as mail order or delivery from another location. It may be useful for proposed changes in public policies related to Part D, either as CMS continues to refine regulations or as Congress may include Part D in discussions of Medicare reform, to consider access to services in the communities described in this brief.

References and Notes

1. Ullrich, F., Mueller, K. (2014). *Update: Independently Owned Pharmacy Closures in Rural America, 2003–2013* (Policy Brief 2014-7). Iowa City, IA: RUPRI Center for Rural Health Policy Analysis.

2. Boyle, K., Ullrich, F., Mueller, K. (2012). *Independently Owned Pharmacy Closures in Rural America* (Policy Brief 2012-4). Iowa City, IA: RUPRI Center for Rural Health Policy Analysis.

3. Mobley, L. R., Root, E., Anselin, L., Lozano-Gracia, N., & Koschinsky, J. (2006). Spatial analysis of elderly access to primary care services. *International Journal of Health Geographics*, *5*(1), 19.

4. Radford, A., Mason, M., Richardson, I., Rutledge, S., Poley, S., Mueller, K., & Slifkin, R. (2009). Continuing effects of Medicare Part D on rural independent pharmacies who are the sole retail provider in their community. *Research in Social and Administrative Pharmacy*, *5*(1), 17-30.

5. Gavil, A., Gaynor, M., Feinstein, D. *Contract year 2015 policy and technical changes to the Medicare Advantage and the Medicare Prescription Drug Benefit programs* [Memorandum]. Washington, DC: Federal Trade Commission. DOI: http://www.ftc.gov/system/files/documents/advocacy_documents/federal-trade-commission-staff-comment-centers-medicare-medicaid-services-regarding-proposed-rule/140310cmscomment.pdf

6. Centers for Medicare and Medicaid Services, 79 Fed. Reg. 1917 (proposed January 10, 2014) (to be codified at 42 C.F.R. pt. 423).

7. Healthcare Leadership Council. (2014, June 04). *Stabilizing our Healthcare Foundation: Protecting Successes in Medicare*. Retrieved from http://www.hlc.org/wp-content/uploads/2014/06/Protecting-Medicare-Successes.pdf

8. Radford, A. et al. op cit