Changing Rural and Urban Enrollment in State Medicaid Programs
Abigail R. Barker, PhD, Kelsey Huntzberry, MPH, Timothy D. McBride, PhD, Keith J. Mueller, PhD

Purpose
From October 2013—before implementation of the Affordable Care Act (ACA)—to November 2016, Medicaid enrollment grew by 27 percent. However, very little attention has been paid to date to how changes in Medicaid enrollment vary within states across the rural-urban continuum. This brief reports and analyzes changes in enrollment in metropolitan, micropolitan, and rural (noncore) areas in both expansion states (those that used ACA funding to expand Medicaid coverage) and nonexpansion states (those that did not use ACA funding to expand Medicaid coverage). The findings suggest that growth has been uneven across rural-urban geography, and that Medicaid enrollment growth is lower in rural counties, particularly in nonexpansion states.

Key Findings
- Medicaid growth rates in metropolitan counties in nonexpansion states from 2012 to 2015 were twice as large as in rural counties (10 percent compared to 5 percent).
- In contrast, the differential in growth rates between metropolitan, micropolitan, and rural counties was much less dramatic in expansion states (growth rates of 41 percent, 35 percent, and 35 percent, respectively).
- Analysis at the state level shows much variability across the states, even when controlling for expansion status. For example, some states with an above-average rural population, such as New Hampshire and Idaho, had higher-than-average enrollment increases, with strong rural increases, while other states with similar proportions of rural residents, such as Nebraska, Maine, and Wyoming, experienced enrollment decreases in micropolitan and/or rural counties.
- States’ pre-ACA Medicaid eligibility levels for parents and children affected the potential for growth. For example, some states that had higher eligibility levels (e.g., New York and Illinois) experienced lower Medicaid growth rates from 2012 to 2015, in part because their baseline enrollment was higher.
- In the expansion states of California, Colorado, and Nevada, which have State-Based Marketplaces (SBMs), enrollment increases were over three times the overall average.

Background and Motivation
Since its passage in 1965, Medicaid has become the largest U.S. health insurance program, covering over 72 million Americans in January 2016.1 Medicaid, which has historically covered low-income children, parents, pregnant women, and the elderly and disabled, provides its beneficiaries with acute and long-term health care coverage. The ACA included funding for states to expand the coverage of their Medicaid programs to include all individuals up to 138 percent of the Federal Poverty Level (FPL). However, in June 2012, the Supreme Court ruled mandatory Medicaid expansion unconstitutional, making Medicaid expansion optional to states.2 Many states began to increase eligibility standards in accordance with the ACA, with a total of 25 states and the District of Columbia participating in the expansion at the start of 2014. Two additional states expanded Medicaid in 2014, and three more states expanded in 2015, bringing the total to 29. Currently, 31 states and the District of Columbia have adopted Medicaid expansion, while 19 states have not. It is worth noting that this gradual pattern of adoption is similar to that of the original introduction of Medicaid: in 1967, 26 states adopted the program, with 11 more adopting within the first three years; however, the final state to adopt the Medicaid program did not do so until 1982.3
The uneven patterns of Medicaid expansion at the state level are likely creating or exacerbating geographic coverage disparities. In particular, there is concern about the disproportionately rural character of the states that have not expanded Medicaid:

- Of the 15 states with the highest percentage of the population living in rural areas, 9 states (60 percent) have expanded Medicaid.4
- In contrast, of the 15 states with the highest percentage of the population living in urban areas, 12 states (80 percent) have expanded Medicaid.

In addition, within a state, existing disparities between rural and urban areas may narrow or widen due to expansion. Individuals in rural areas on average have lower incomes than individuals in urban areas.5 The rural population is also less likely to be covered by employer-sponsored health insurance.5 For these reasons, before the ACA was passed, rural populations, particularly children, were more likely to be covered by public insurance.5,6 Currently, in nonexpansion states, many uninsured have been left in a coverage gap, living above Medicaid eligibility levels but below the level at which subsidized Health Insurance Marketplace (HIM) coverage is available. It was initially estimated that in rural areas, 15 percent of the uninsured would be left in a coverage gap, compared to only 9 percent in urban areas.5

It might be expected that rural populations would benefit disproportionately from the ACA. However, because of significant differences in sociodemographics, political and social attitudes, and perhaps in information and outreach regarding HIMs in rural and urban areas, it is also plausible that enrollment changes in rural areas after the ACA may not match those in metropolitan areas. Many individuals who were eligible for (but unenrolled in) Medicaid before passage of the ACA discovered their or their children’s eligibility while inquiring about the ACA’s HIM plans, and even in non-expansion states, enrollment has increased due to this “woodwork effect.”7 This suggests the potential for uneven woodwork effects depending on people’s interest in HIM coverage and is the subject of this analysis.

Data and Methods
County-level enrollment data were obtained either online or by request from the individual states’ Medicaid offices, allowing analysis of changes in Medicaid enrollment by metropolitan status post-ACA. Using those sources we were able to obtain Medicaid enrollment totals by county for 40 states—22 Medicaid expansion states and 15 nonexpansion states—for December 2012, which was immediately prior to expansion even by states that chose early adoption, and December 2015.8 These data were available in a majority of the states studied; however, in several states, only monthly fiscal year averages, total enrollment counts for the whole year, or data from other months were available.9 State-level percent change in Medicaid enrollment between 2012 and 2015 was calculated as an average of the percentage change by county in each state in both years, or data from other months were available.9 Descriptive analyses showed substantial differences in Medicaid enrollment growth based on expansion and rural status (Figure 1). Prior to the ACA, annual growth was 1.1% in expansion states and 0.5% in nonexpansion states.11 On average, growth rates in expansion states were over 5 times greater than in nonexpansion states (37 percent as compared to 7 percent). In nonexpansion states, rural areas experienced lower enrollment growth than micropolitan areas, which in turn had lower enrollment than metropolitan areas. In expansion states, metropolitan areas experienced higher growth than rural and micropolitan areas, but there was no difference in enrollment between micropolitan and rural areas. The difference in enrollment growth patterns across geography between expansion and nonexpansion states is perhaps a surprising finding, and should be analyzed further. Table 1 shows similarly dramatic state-by-state differences within each expansion category. For example, some highly rural nonexpansion states—in particular Maine, Nebraska, and Wyoming—experienced Medicaid enrollment decreases in rural and/or micropolitan regions in the 2012-15 period.
On the other hand, Florida and Idaho, both also nonexpansion states, experienced Medicaid enrollment increases that were higher than those in some expansion states. In the expansion states of California, Colorado, and Nevada, which both have SBMs, enrollment increases were over three times the overall average. Clearly, while rural differences exist at the aggregate level, there is much state-by-state variation in Medicaid enrollment growth that needs further study. Some of these differences, particularly in nonexpansion states, may be related to the relative success rates in the HIMs, which are reported as the percent of the potential HIM market enrolled in each state. For example, in the nonexpansion states of Idaho and Florida, where HIMs were most successful, Medicaid growth was also relatively high.12

Enrollment growth may also have been impacted by a state’s prior Medicaid eligibility levels for parents and children. Some states had already implemented their own Medicaid expansion prior to the ACA. In addition, most states already had higher Medicaid eligibility levels for children that matched the ACA expansion, due...
to the Children’s Health Insurance Program (CHIP), so in general children were less likely to fall into “gaps” if the state had not expanded Medicaid. Therefore, states that had a high pre-ACA coverage baseline often experienced lower Medicaid enrollment growth rates between 2012 and 2015. For example, states such as Illinois and New York, which had higher eligibility levels prior to 2014, experienced lower enrollment growth rates (16 percent and 21 percent, respectively), while states such as Oregon and Kentucky, which had lower eligibility levels prior to the ACA, experienced above-average Medicaid growth rates (67 percent and 60 percent, respectively). Medicaid enrollment growth rates across metropolitan, micropolitan, and rural counties were also highest in states with SBMs. This is even true in Idaho, which did not expand Medicaid. However, there is no uniform story: state-level variation across all these measures is clearly evident.

Discussion
Medicaid enrollment has increased rapidly in both expansion and nonexpansion states since the passage of the ACA. Gains were larger in expansion states and in metropolitan areas, with the geographic differential more pronounced in nonexpansion states and in states without SBMs. While this study is descriptive, and thus the causal reasons behind these changes are not established, some areas in particular need further exploration. Potential reasons for low enrollment in rural populations in non-expansion states include limited outreach or lesser presence of ACA navigators in rural areas, less interest in or knowledge about seeking out ACA coverage on the part of parents (since many children have been newly enrolled in Medicaid/CHIP as their parents go through this process), backlogs in processing of Medicaid applications, and bureaucratic roadblocks created by states to control costs and reduce the woodwork effect. 13 Enrollment differences could also be a result of variations in HIM outreach efforts that have had spillover effects, an idea supported by the high enrollment changes in some SBMs (California, Colorado, Kentucky, Idaho, Nevada, Oregon, and Washington). Similar enrollment differences by rural status exist in HIMs,14,15,16 which suggests the possibility that enrollment differences are affected by broader political and social factors. Nonexpansion also implies that the state is budget-conscious and may not be interested in Medicaid outreach. Variations in outreach efforts between rural and urban areas within nonexpansion states may be due to the fact that most outreach in nonexpansion states is funded privately and charitably, and such groups are less likely to have the means to implement outreach efforts effectively in rural areas where the population is less concentrated. Socioeconomic differences between urban and rural areas (e.g., income, poverty) may also play a role. However, state-level variation exists even among states that are predominately rural, suggesting that at the policy level, best practices gleaned from states with higher enrollment rates could be implemented in states with lower enrollment rates.

Notes
8 States with no rural (nonmicropolitan) counties (CT, DC, DE, NJ) were excluded from analyses.
9 To control for seasonality of enrollment, we used December data whenever possible. AZ 2015 data are from October instead of December. WY 2012 data are from June 2012 instead of December 2012. ND and SC enrollment data are for the entire fiscal year. SD data are from fiscal year monthly averages. For fiscal year states, SFY 2013 (July 2012 to June 2013) is used in the place of December 2012 data and SFY 2016 (July 2015 to June 2016) is used in place of December 2015 data. One exception is ND where SFY 2015 (July 2014 to June 2015) data was used in the place of December 2015 data because SFY 2016 data is not yet released. OK data are for the entire calendar year. CO enrollment totals include partial Medicaid beneficiaries. AZ data excludes approximately 100,000 beneficiaries who were left out of county enrollment counts because they were eligible for Indian Health Services (IHS) Medicaid and not assigned to a county. In OH, TX, and in 2012 CA data, Centers for Medicare and Medicaid (CMS) enrollment totals may include beneficiaries eligible for partial-benefit Medicaid. CMS enrollment data for FL do not include Supplemental Security Income (SSI) based beneficiaries. In VT, several thousand Medicaid eligible beneficiaries were not assigned to a county. County-level data was missing more frequently in 2012 than in 2015 because address data were not updated. This may have affected enrollment growth calculations. Enrollment data from IL, MN, and WA include those enrolled in state-sponsored Medicaid programs like MinnesotaCare. CMS data exclude these beneficiaries. KS, KY, and MN enrollment data include recipients eligible individuals. KY data are calculated several months after the month in which enrollment data is given. This means that individuals who started the enrollment process but did not complete it in the given month are included in enrollment counts. Also, KY county-level data includes more individuals than the unduplicated state totals because when a recipient moves to a new county, they are included in the enrollment totals in both their old and current county.
10 RUPRI calculations based using the USDA Economic Research Service’s 2013 Urban Influence Codes.
11 RUPRI calculations based using the USDA Economic Research Service’s 2013 Urban Influence Codes.
12 Because the uninsured between 100 and 138 percent of FPL are part of the potential market only in nonexpansion states, and these individuals are eligible for the highest subsidies and most generous cost-sharing, these states tend to be dominated by states that are predominately rural and have lower enrollment rates. State spending depends on the distribution of incomes in Medicaid expansion states, eligibility for the most affordable coverage will differ considerably, and this may be why the relationship is not obvious.