A Guide to Understanding the Variation in Premiums in Rural Health Insurance Marketplaces
Abigail R. Barker, PhD; Timothy D. McBride, PhD; Leah M. Kemper, MPH; Keith Mueller, PhD

Key Findings
- State-level decisions in implementing the Patient Protection and Affordable Care Act of 2010 (ACA) have led to significant state variation in the design of Health Insurance Marketplace (HIM) rating areas. In some designs, rural counties are grouped together, while in others, rural and urban counties have been deliberately mixed.
- Urban counties have, on average, approximately one more firm participating in the marketplaces, representing about 11 more plan offerings, than rural counties have.
- The highest-valued “platinum” plan types are less likely to be available in rural areas. Thus, the overall mix of plan types should be factored into the reporting of average premiums.
- Levels of competition are likely to have a greater impact on the decisions of firms considering whether to operate in higher-cost areas or not, as those firms must determine how they can pass such costs on to consumers, conditional on the market share they are likely to control.

Introduction
The ACA required all 50 states and the District of Columbia to establish HIMs. The marketplace structure is meant to deliver more affordable insurance options across the population by harnessing the power of competition in a setting that has been carefully designed to promote transparency for consumers. A range of factors affect how consumers, policymakers and others should assess and compare choices, premiums, and other aspects of HIM plans. This brief discusses several important factors that should be considered when comparing health insurance plans in the HIMs across geographic areas:
- The design of rating areas (which is a state-level decision);
- The effects of age, family status, and tobacco use on actuarial value;
- The “metal level” of the plans (bronze, silver, gold, platinum) and their actuarial values; and
- The cost of living in the rating area.

An appropriate comparison of plan premiums and benefits must account for all of these factors, and even then, other important considerations may still create differentials. Use of the methodology described here will ensure that comparisons are being made carefully, so any remaining differentials are “true” differences across geography. These true differences are important to report as they are likely unrelated to intentional policy design but could be addressed by future policy updates if needed.
Rating Area Design

Several details regarding HIM implementation were left to the states. One such detail was the design of rating areas, which are geographic divisions in a state within which health insurance plans must charge the same premium to people of the same age, family status, and tobacco use status.\(^1\) Compliance with the regulations enacted to carry out the law may be achieved through uniform geographic rating areas for the entire state or by creating no more geographic rating areas than the number of metropolitan statistical areas (MSAs) in the state plus one. Rating areas may be comprised of noncontiguous regions. The final rule on geographic rating areas specifies that “a state's rating areas must be based on one of the following geographic divisions: counties, three-digit ZIP codes, or MSAs and non-MSAs.” Additionally, states were allowed to petition the Department of Health and Human Services (HHS) to approve larger numbers of rating areas if they felt such a division was actuarially justified. Finally, the rule specifies that if a state does not actively establish adequate rating areas, “the default is one rating area for each MSA and one rating area for all other non-MSA portions of the state.”\(^2\)

As a result of the final rule, what constitutes a rating area varies quite a bit across states. At one extreme, 6 states designated the entire state a rating area, while at the other extreme 3 states set each county as a rating area. In between, 7 states chose the default option of “MSAs+1,” but most states used another method to set their rating areas—either groups of counties (30 states) or groups of three-digit ZIP codes (4 states). Five states petitioned HHS for more rating areas than the statutory limit, including the 3 states that assigned each county to its own rating area (See Table 1 and sample maps in the Appendix, or see the RUPRI Center website for a complete set of maps\(^3\)).

### Table 1: State Rating Area Decisions

<table>
<thead>
<tr>
<th>Actively Established at the State Level</th>
<th>ACA Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Statewide Rating Area</td>
<td>Regions within State</td>
</tr>
<tr>
<td>DE HI NH NJ RI VT</td>
<td>AZ AR CA(^2) CO(^2) GA IL IN IA KS KY LA ME MD MI MN MS MO(^2) MT NV NY NC OH OR PA SD TN UT WA WV WI</td>
</tr>
</tbody>
</table>

1 Individual market
2 Los Angeles county is split in two based on 3-digit ZIP codes
3 These states received permission to use more rating areas than the statutory limit.

While it is uncertain whether the states’ decisions regarding rating area design have any particular advantages or disadvantages for rural populations, any such effects will be experienced unevenly depending upon the state of residence. Further analysis is needed to determine the policy objectives the states were pursuing in their choice of rating area design.

Age, Family Status, and Tobacco Use

Within a rating area, plans are allowed to vary premiums at the individual level by age, family size and structure, and the enrollee’s tobacco use. The maximum variation in premiums by age is limited to 3:1, but it may still have some differential impact in rural and urban places because rural populations tend to be older.\(^4\) In all states other than New York and Vermont, which have mandated uniform premiums across all ages, premium data must be adjusted to make appropriate comparisons. Similarly, premiums for couples, single-parent families, and two-parent families differ significantly, and tobacco users may pay up to 50% more than nonusers. While federal data are uniform in these categories, making comparisons straightforward, state exchanges sometimes choose to report premiums differently and must then be adjusted in order to be comparable.

Actuarial Value and Metal Levels

In comparing plan premiums and other costs across geographic areas, it is important to explicitly consider that the HIMs offer four different levels of insurance coverage, in addition to basic catastrophic coverage available only to young adults (under age 30). The levels are known as “metal levels,” as they refer to bronze, silver, gold, and platinum plans. The plans are certified by the Center for Consumer Information and Insurance Oversight (CCIIO) to provide a certain amount of value to the average consumer. Specifically, a bronze plan, through some combination of copays, coinsurance, deductibles, and other plan design details, must pay approximately 60% of the costs of an average consumer. This
is known as the actuarial value (AV) of the plan; corresponding AVs for silver, gold, and platinum plans are 70%, 80%, and 90%, respectively.5

The relevant point for analysis of geographic variation is that the plan must be certified to deliver a particular AV for the average population nationwide. There is no requirement regarding actual AV as the plan is utilized by consumers in a particular region. If costs are high in a particular region, firms will likely feel pressure to raise premiums, because, for example, a silver plan in that region will actually be providing a higher AV to consumers than it is intended to, perhaps 75% instead of the 68-72% range that they must score in order to be labeled “silver” by the CCIIO.

Another important consideration in terms of variation related to metal levels is that firms need not offer all levels of coverage in all rating areas. In particular, in rural areas, platinum plans are less likely to be available. As shown in Figure 1, while 6.4% of the plans offered in urban areas are platinum, this is true of only 4.2% of the plans in rural areas. Therefore, any comparisons of average premiums across regions that rely on simple averages of all plans offered will have an inherent bias (that is, because platinum plans are more expensive, and the premiums for these plans are correspondingly higher, average premiums in urban areas will tend to be higher). Thus, to make an accurate comparison, it is necessary to compare premiums by metal level or to normalize the premiums (that is, use AV information to correct for the intrinsic differences across levels).

Figure 1: Available Metal Levels in Urban and Rural Counties

Cost of Living Differences
Urban places often have a higher cost of living than rural places, and in general, incomes in urban areas are also correspondingly higher, which generally makes it more possible to afford these higher prices. The converse applies in most rural areas. Table 2 shows that adjusting premiums to account for the cost of living can have dramatic effects on the comparative values of premiums across geography. The RUPRI Center has obtained a county-level cost of living index (COLI)6 for all counties, with 100.0 as a base. The COLI ranges from 86.1 to 314.2 (shown in Table 2 for selected areas), and it can be used to adjust all premium data to ensure that comparisons are made on an “apples-to-apples” basis. Thus, the average premium of $234 available in Sandy Hook, KY is approximately the same as a $272 premium in the higher-cost town of Austin, MN (where the COLI equals 100.0 and is therefore used as a base). So in adjusted terms, the Sandy Hook average premium is in fact higher than the actual Austin average premium of $254.

Typically, this adjustment will increase the overall urban/rural premium differential because the adjusted premiums in densely populated areas will fall relative to premiums in moderately populated areas. (However, in remote areas such as Aspen, CO, the COLI is fairly high, so the opposite occurs.)

Table 2: Selected COLIs and Their Effect on Average Premiums

<table>
<thead>
<tr>
<th>City or Town</th>
<th>County Type</th>
<th>COLI</th>
<th>Unadjusted Premium</th>
<th>Adjusted Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandy Hook, KY</td>
<td>rural</td>
<td>86.1</td>
<td>$234</td>
<td>$272</td>
</tr>
<tr>
<td>Waterloo, IA</td>
<td>urban</td>
<td>98.3</td>
<td>$228</td>
<td>$232</td>
</tr>
<tr>
<td>Austin, MN</td>
<td>rural</td>
<td>100.0</td>
<td>$254</td>
<td>$254</td>
</tr>
<tr>
<td>Bend, OR</td>
<td>urban</td>
<td>113.8</td>
<td>$275</td>
<td>$242</td>
</tr>
<tr>
<td>Aspen, CO</td>
<td>rural</td>
<td>139.2</td>
<td>$417</td>
<td>$300</td>
</tr>
<tr>
<td>New York, NY</td>
<td>urban</td>
<td>314.2</td>
<td>$443</td>
<td>$141</td>
</tr>
</tbody>
</table>
Other Factors that May Affect Premiums
After adjusting for rating area design, actuarial value, and cost of living, the remaining differences in HIM premiums should reflect a truer measure of geographic variation, which may in turn be attributable to several other factors. Local variations in cost, either due to health care delivery system (in) efficiency or to local utilization patterns, will have to be absorbed somehow. One possibility, already mentioned, is that premiums will reflect these differences. Another possibility is that firms will trim operating costs by restricting, or “narrowing,” their networks by contracting with only the lowest-cost providers. They may even exclude certain counties within a rating area from their service area altogether, depending upon state-level requirements on this issue. With narrower networks, consumers lose flexibility in order to keep premiums low. The degree to which either of these scenarios occurs probably depends upon levels of competition among firms operating in the region. If many firms are competing, it will be difficult to raise premiums to cover higher-than-average costs. It will also be difficult to narrow networks as a means of controlling costs, as this is another plan feature for which many consumers will be shopping. Although there will be a range of options for consumers, the high costs themselves will likely be absorbed to a large extent by the firm. However, in areas with limited competition, high costs will likely be shifted to consumers, either through higher premiums or narrowness of networks—or a combination of the two.

Plan Availability in Rural and Urban Places
Given the likely importance of competition as a means of keeping costs down without narrowing networks, it is important to measure the degree of choice available in HIMs in rural and urban areas because more choices indicate more competition. Analysis of data from the CCIIO and state marketplaces shows an average of 37.3 plans available in urban counties, and an average of 25.7 available in rural counties. Note that it is common for one firm to offer many plans at all metal levels and with different benefit designs; the average number of plans offered by a single issuer is 11.4. Thus it is a reasonable approximation to say that the average urban county has an equivalent of one more firm participating in the HIMs than the average rural county.

Discussion
The state-based nature of the marketplace and rating area design has led to significant variations in insurance markets across the states, influenced by state policy decisions and demographics within states. Premiums for health insurance plans offered through HIMs therefore have the potential to vary due to rating area design, actuarial values, metal levels, and competition. As premium and enrollment data for the HIMs become available and are analyzed, it is important to track the impact on rural populations accurately by correcting for all superficial factors that can account for premium variation. Without a systematic consideration of these factors, any reports of rural/urban variation are likely obscuring some real, fundamental differences that are not related to intentional policy design. Moreover, the differences in premium variation that are related to policy decisions should be evaluated carefully as policymakers consider how to change policies over time in order to achieve the objectives of the ACA. Finally, the issue of network adequacy within the HIMs merits future study in its own right, perhaps using case studies of representative urban and rural areas.

Notes
1 PPACA Section 2701(a)(2).
3 A complete set of maps is available at http://cph.uiowa.edu/rupri/publications/policybriefs/2014/premiums/
5 Plans must use this calculator to determine AV: www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/av-calculator-final.xlsm
6 The index is available from the Council for Community and Economic Research at http://www.coli.org/CountyLevelIndex.asp
7 Federal data obtained from https://www.healthcare.gov/health-plan-information/; state data obtained from state agencies and from shopping several states’ online marketplaces directly.
Appendix: Sample Maps

Rating Areas for New Mexico

Rating Areas for Minnesota

Rating Areas for Florida

Classification by County

Classification by County

Classification by County

Urban
Rural

Urban
Rural

Urban
Rural

5