Health Care Access and Use among the Rural Uninsured

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Background

- Rural residents are more likely to be uninsured, particularly when they live in small, remote places.

- Uninsured have poorer access to care, delay care, and obtain care at levels of greater acuity than the insured & more intensive settings (e.g., the ED)
Background
Limited studies comparing rural-urban impact of being uninsured:

- Rural uninsured have better access to a usual source of care but use fewer services than urban uninsured (Larsen & Fleishman 2003).

- Rural uninsured are more likely to experience preventable hospitalizations compared to their urban counterparts (Zhang, Meuller & Chen, 2008).
Purpose

- Assess health care access and use for the rural uninsured compared to:
  - the urban uninsured
  - the rural insured

- Assess whether differences between uninsured rural and urban residents differ from those of their insured counterparts.
Methods

**Data**: Pooled years from the 2002 - 2007 Medical Expenditure Panel Survey (MEPS).

**Sample**: 173,000 individuals under age 65, of whom nearly 30,000 (17% unweighted) lived in a rural area.
Methods

Variables:
Independent: Rural residence
Uninsured all year
Dependent: Self-reported access
Health care use

Analyses: Weighted bivariate and multivariate analyses with adjustment for complex sample design; difference-in-difference models.
Measures

**Access**
Reported usual source of care (USC)
Reported delays/forgone health care

**Use**: Any ambulatory use, ER use, prescription drug use, office-based physician visits, office-based non-physician visits.
Delayed or Forgone Care

USC

- Rural Uninsured
- Rural Insured
- Urban Uninsured
- Urban Insured

Counts:
- Rural Uninsured: 10
- Rural Insured: 1
- Urban Uninsured: 8
- Urban Insured: 1
Usual Source of Care

<table>
<thead>
<tr>
<th></th>
<th>USC</th>
<th>After Hours Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Uninsured</td>
<td>57</td>
<td>61</td>
</tr>
<tr>
<td>Rural Insured</td>
<td>85</td>
<td>66</td>
</tr>
<tr>
<td>Urban Uninsured</td>
<td>46</td>
<td>65</td>
</tr>
<tr>
<td>Urban Insured</td>
<td>84</td>
<td>73</td>
</tr>
</tbody>
</table>

Legend:
- Rural Uninsured
- Rural Insured
- Urban Uninsured
- Urban Insured
Any Ambulatory Care Visit

<table>
<thead>
<tr>
<th>USC</th>
<th>Any RX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Uninsured</td>
<td>Rural Insured</td>
</tr>
<tr>
<td>49</td>
<td>76</td>
</tr>
<tr>
<td>75</td>
<td>67</td>
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</tbody>
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Legend:
- Rural Uninsured
- Rural Insured
- Urban Uninsured
- Urban Insured
**Multivariate Analyses**

- Difference-in-differences logistic regression models where rural residence and uninsurance are interacted

- Dependent variables:
  - Has a USC
  - Delayed/Forgone Care
  - Received Ambulatory Care
  - Obtained a Prescription Medication
Multivariate Analyses

- Simple models included rural residence, uninsured status, and interaction

- Control variables included: age & age squared, gender, marital status, income, education, health status and region of residence.
Multivariate Findings

- No difference-in-difference for delayed/forgone cost based on residence

- Prescription drug use revealed a significant difference-in-differences in the simple models that disappeared once control variables were added.
Multivariate Findings

- Odds of having a usual source of care and of having an ambulatory visit showed significant difference-in-differences, even after controlling for other factors.
- The difference in odds of having a USC or ambulatory care visit are higher for the rural uninsured, controlling for use patterns of the rural insured.
Conclusions

- Regardless of residence, the uninsured are 6 to 7 times as likely to delay or forego medical care due to cost.

- Uninsured rural residents are less likely to have a USC and to use all types of health care services than are rural residents with coverage.
Conclusions

- The uninsured face access barriers but disparities based on insurance status are smaller in rural than urban areas for several measures, controlling for multiple factors.
- Rural residents face some unique barriers including difficulty obtaining care after hours, travel distances, and poor dental access.
Conclusions

- Rural providers may be more willing to provide some services to their uninsured patients than are urban providers.

- Recent study found 86% of RHCs offer free/discounted care to un/underinsured.

- Rural providers may face large uncompensated care burdens.
Limitations

- Health care access is a complicated phenomenon and not easily measured by large national surveys.

- Having a USC is particularly ambiguous in a rural context, because it may reflect limited supply.
Contact Information

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