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## Profile of rural health insurance coverage: A chartbook

Jennifer D. Lenardson MHS

*University of Southern Maine, Maine Rural Health Research Center*

Erika C. Ziller PhD

*University of Southern Maine, Muskie School of Public Service, Maine Rural Health Research Center*

Andrew F. Coburn PhD

*University of Southern Maine, Muskie School of Public Service, Maine Rural Health Research Center*

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# Profile of Rural Health Insurance Coverage

## A Chartbook

# Profile of Rural Health Insurance Coverage

**A Chartbook**

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Prepared by

**Jennifer D. Lenardson, M.H.S.**

**Erika C. Ziller, M.S.**

**Andrew F. Coburn, Ph.D.**

**Nathaniel J. Anderson, M.P.H.**

of the

**Maine Rural Health Research Center**

Muskie School of Public Service

University of Southern Maine

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# Introduction and Key Findings

As the nation considers whether and how to reform the healthcare system to achieve expanded health insurance coverage and access to care, it is important to consider differences in health insurance coverage for those living in rural and urban areas. More than twenty years of research has demonstrated that rural residents are at greater risk of being uninsured compared to urban residents<sup>1-4</sup> and more recent studies point to problems of underinsurance as well.<sup>5</sup> Most studies have shown that the problems of uninsured and underinsurance are greatest among rural residents living in smaller communities located further from more urbanized areas.

Even when studies have found limited or no rural-urban difference in uninsured rates, sources of coverage have differed.<sup>6-8</sup> Our previous work found higher rates of public versus private coverage for rural residents living in smaller, more remotely located rural areas compared to those living in larger rural and urban areas. In addition, patterns of coverage (including number and length of uninsured spells) have been shown to differ across rural and urban children and families.<sup>9,6</sup> Factors associated with poorer health insurance coverage and access to care are more common among rural than urban residents. Rural residents are more likely to be less healthy, low-income,<sup>10</sup> and to be employed through occupations and types of firms (e.g. smaller, seasonal) that do not typically offer insurance benefits.<sup>11</sup> These socioeconomic and employment characteristics contribute significantly to the higher rates of uninsured and underinsurance in rural areas.<sup>12,4,7</sup>

This chartbook provides updated information on the health insurance status of rural Americans under the age of 65. Data analyses are based on the 2004-05 Medical Expenditure Panel Survey (MEPS). MEPS is a nationally representative panel survey conducted by the federal Agency for Healthcare Research and Quality (AHRQ) that contains

detailed information on socio-demographic characteristics, health status, health insurance coverage, income, medical care utilization, and medical expenditures. Most analyses of insurance differences were done using a geographic classification that allows for a more refined definition of rural residence. Where data allow, we break out results for residents based on whether they abut an urban county (“adjacent”) or not (“not adjacent”).\*

Section I examines recent estimates and changes since 1997 in rural health insurance coverage. Section II explores differences in the demographic, socio-economic, employment and other risk factors for uninsured among rural and urban residents. Section III profiles the demographic and economic characteristics of the rural and urban uninsured. Section IV examines differences in the employment characteristics of the rural and urban uninsured. The final section discusses policy implications for covering the rural uninsured. Methods and an appendix of data tables provide source material for the chartbook.

\* We used the Rural-Urban Continuum Codes (RUCCs) to distinguish counties based on their metropolitan (metro) and non-metropolitan (non-metro) status, population size, and adjacency and non-adjacency to a metro area. We combined three metro groupings into a single urban category and then combined the six non-metro groupings into two categories: non-metro counties adjacent to metro counties and non-metro counties not adjacent to metro counties.

## Key Facts

### **A greater proportion of rural residents than urban residents are uninsured or covered through public sources.**

- As population density and proximity to urban areas decrease, rural uninsured rates increase. In the smallest and most remote rural areas (population less than 2,500), the uninsured rate is 23% compared to an urban rate of 19%.
- Between 1997 and 2005, public sources of coverage – Medicaid, CHIP, Medicare, and TRICARE – have been particularly important in offsetting loss of private coverage in rural areas.

### **Rural children have made large gains in health insurance coverage since 1997, due to expanded public coverage; uninsured rates among rural adults remain unchanged and higher than urban.**

- While uninsured rates among all children have declined since 1997, the change was so dramatic in rural areas that the 2005 uninsured rate among rural children was lower than for their urban counterparts (9% versus 11%).
- Roughly one-quarter of all adults are uninsured, with higher rates in rural, not adjacent areas. These rates have not changed since 1997.
- More residents of rural, not adjacent areas (16%) were uninsured for a full year, compared to residents of urban areas (13%), a 20% difference. While duration of uninsurance for children did not vary by residence, more adults living in rural, not adjacent areas were uninsured for a full year compared to adults living in urban areas (20% compared to 16%).

### **Persons living in rural, not adjacent areas are at higher risk of being uninsured compared to persons living in rural, adjacent and urban areas.**

- Our findings confirm the need to consider insurance differences between gradations and types of rural residence, as well as direct comparisons with urban areas. Residents of rural communities not adjacent to urban areas are more vulnerable to being uninsured than residents of urban areas and rural communities that are in close proximity to more populated areas.

### **Compared with urban residents, rural residents with demographic and economic characteristics commonly associated with uninsurance (e.g., income, employment) tend to have higher uninsured rates.**

- Compared with those living in urban and rural, adjacent areas, families in rural, not adjacent areas with zero or one full-time worker face a greater risk of being uninsured. These differences increase when considering adults only.
- Workplace characteristics common in rural areas – including small firm size, low wages, and self-employment – continue to be risk factors for higher uninsured rates in the most rural places.

### **Compared to urban adults, rural adults are more likely to be not employed or to work for employers that do not sponsor health insurance coverage.**

- Nearly one-third (30%) of uninsured rural residents are not employed compared to 27% of urban residents.

- In rural, not adjacent areas, 64% of working adults are offered coverage through their employer compared to 71% in urban areas. This difference persists for full-time workers, with 75% of workers in rural, not adjacent areas offered coverage, compared to 81% in urban areas.
- When coverage is offered, 95% of rural and urban workers are enrolled.

### **The rural uninsured often work for small firms and are paid low wages.**

- Workers employed by small firms represent 69% of the uninsured in rural, not adjacent areas compared to 59% in adjacent and urban areas.
- In rural, not adjacent areas, low-wage workers represent 67% of the uninsured, compared to 53% in urban areas.

### **Self-employed and part-time workers are more likely to be uninsured in remote rural areas.**

- A greater proportion of self-employed workers living in rural, not adjacent areas are uninsured (40%), compared to self-employed workers in rural, adjacent (24%) and urban (32%) areas.
- Of the uninsured in rural, not adjacent areas, one-third is self-employed, compared to 15% in rural, adjacent areas and 20% in urban areas.
- About one-third of part-time workers are uninsured, with a greater proportion uninsured in rural, not adjacent areas (30%) compared to rural, adjacent and urban areas (27%). Regardless of residence, few part-time workers are offered health insurance coverage.

## **Implications for Health Reform**

Our key findings have important implications for health reform strategies designed to expand insurance coverage. Compared to urban residents, rural residents are more likely to be uninsured or to have public coverage and to have characteristics that elevate their risk of being uninsured. These differences influence the viability and effectiveness of potential policy options, differences that should be considered when examining proposals to insure more Americans.

- **Rural residents are in greater need of health reform, as demonstrated by their higher uninsured rates—particularly in the most remote rural communities.**

Comparing urban counties to rural counties that abut them (rural adjacent), the same proportion of residents is uninsured (19%). However, uninsured rates increase as population becomes sparser and proximity to urban areas becomes more remote. In the most rural communities (population less than 2,500), the uninsured rate is 23%.

This rural-urban disparity in coverage is driven by higher uninsured rates among rural adults, among whom both the likelihood of being uninsured and the difference compared to urban residents is higher, than for children.

- **Public sources of coverage (Medicaid and CHIP) are an important source of health insurance for rural Americans and have dramatically reduced the uninsured rate among children over the past decade.**

One-fifth of rural residents under age 65 have health insurance from a public source, primarily Medicaid or CHIP, compared to 17% of urban



residents. This reliance on public coverage is especially high among rural children, of whom nearly 40% have public coverage versus 30% of urban children.

Following the enactment of CHIP in 1997, public health insurance coverage rates doubled among rural children. The result was a dramatic decline in uninsured rates among rural children (from 21% to 9%). While urban children also saw a reduction in uninsurance, it was much more modest (from 15% to 11%). The success of public expansions on reducing the uninsured rate among rural children suggests that access to public coverage be sustained and potentially even extended to rural adults. Given that well over half of all uninsured rural adults have incomes below 200% of the FPL, even modest eligibility expansions may have an observable impact on rural coverage.

- **Improving rates of private coverage may be particularly challenging in rural areas, where employment characteristics make it difficult to sustain viable insurance pools.**

Options for increasing private coverage may have important rural considerations. For example, requiring employers to buy coverage for their workers (“employer mandates”) will be less effective in rural areas if small employers or part-time workers are excluded, as is typically the case. Beyond the goal of expanding rural coverage, the economic impact on rural businesses is an important consideration.

Because many uninsured have no access to employer-based coverage, analysts suggest that tax credits for individual insurance would be an effective solution. Given rural residents’ looser connection to the full-time, year-round employment market, this option could have a distinct rural benefit. Part-time and self-employed workers could gain better access to private coverage that was portable if work circumstances

changed. One possible negative consequence could be an increase in the number of “underinsured” rural residents given that individual plans often have more limited benefits and greater cost-sharing. To increase rural coverage, any tax credits for individual insurance would need to be large and paid when insurance premiums are due rather than as an annual tax refund.

- **Whether based on public or private plans, reform efforts to expand health insurance coverage to rural Americans must be affordable for lower income individuals and families.**

Policy interventions should consider the limited means of the rural uninsured. For example, the creation of a public buy-in option may need to have sliding-scale premiums or subsidies to ensure the greatest rural participation. The same is true of private plan options—given their lower incomes, rural residents may be less likely to buy voluntary plans and more likely to struggle to afford a mandatory program.

## Section I

### Health Insurance Coverage in Rural Areas: Recent Estimates and Changes Since 1997

Rural residents, particularly those living in communities more distant from urban areas, vary in coverage rates and type of coverage from their urban counterparts. During 2004-05, nonelderly residents of rural areas were more likely to be uninsured, more likely to have coverage through public sources, and less likely to be privately insured than residents of urban areas. Since 1997, uninsured rates and private coverage have declined in rural areas while public coverage has increased, with the most dramatic changes among children.

#### Key Facts

##### **A greater proportion of rural residents than urban residents is uninsured.**

- Comparing rural, adjacent areas to urban, the same proportion of residents is uninsured (19%). However, uninsured rates increase to 21% when the rural area is more distant from an urban area and to 23% when the rural area has a small population (less than 2,500). (Chart 1.1)

##### **Public coverage has increased among rural residents since 1997, while private coverage has declined.**

- Comparing 1997 to 2005, public sources of coverage continue to be more common in rural than urban areas and this difference became larger in 2005. (Chart 1.2)

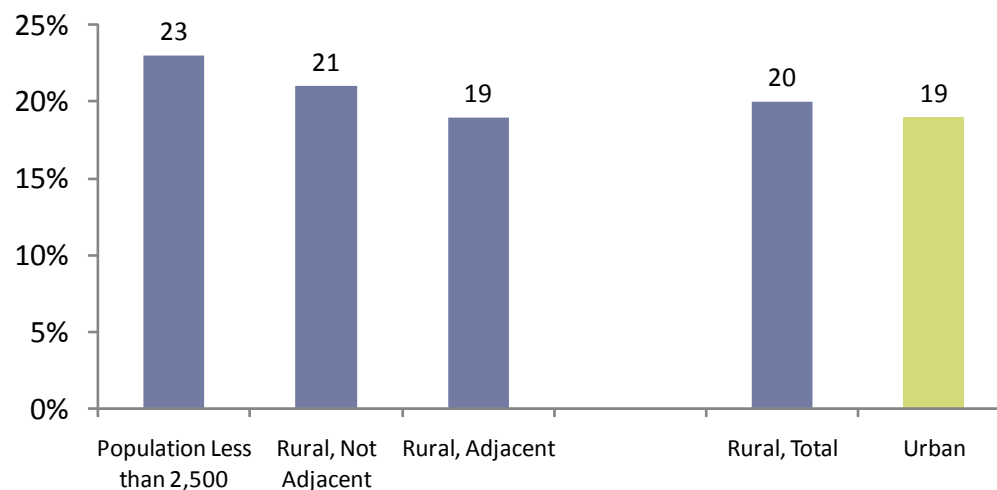
- Despite experiencing a larger percent decline in their rates of private coverage between 1997 and 2005, urban residents continue to have higher rates of private coverage (65%) than residents of rural, not adjacent (59%) and rural, adjacent areas (61%). (Chart 1.2)

##### **Rural children have made large gains in health insurance coverage since 1997 due to expanded public coverage; however, uninsured rates among rural adults remains high.**

- Between 1997 and 2005, public health insurance rates nearly doubled among rural children from 21% to 39%. This gain offset a decline in private coverage, reducing the rate of uninsured rural children by more than half. (Chart 1.4)
- Adults in rural areas are less likely to have private health insurance (62% not adjacent, 64% adjacent) compared to adults in urban areas (67%). Roughly one-quarter of all adults are uninsured. (Chart 1.3)

## Chart I.1

**Uninsured rates are higher among rural residents living in smaller counties more remote from urban areas.**

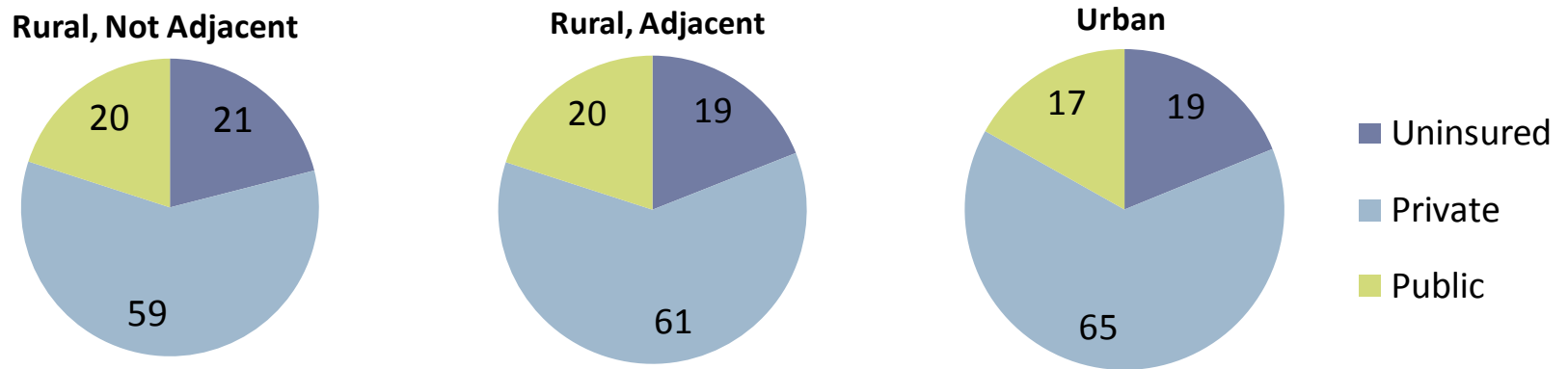


Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$ .

- Rural uninsured rates increase as population density and proximity to urban areas decrease. In the smallest and most remote rural areas (population less than 2,500), the uninsured rate is 23% compared to an urban rate of 19%.

## Chart I.2

### Rural residents rely more on public sources of health insurance than urban residents.



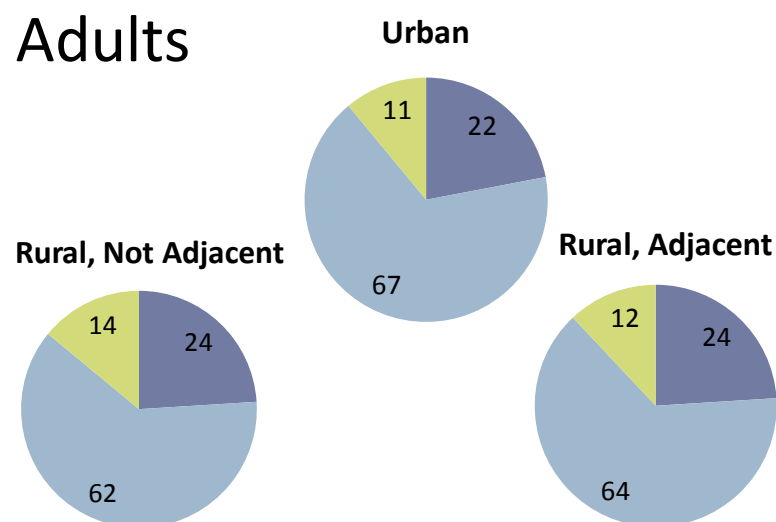
Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$ .  
Due to rounding, some characteristics may not total 100 percent.

- More rural than urban residents have public coverage (20% versus 17%).
- Rural residents are less likely to have private health insurance (59% or 61% depending on adjacency to urban areas), compared to 65% of urban residents.

**Chart 1.3**

**Rural adults have higher uninsured rates. Higher rates of public coverage reduce geographic differences in uninsured rates for children.**

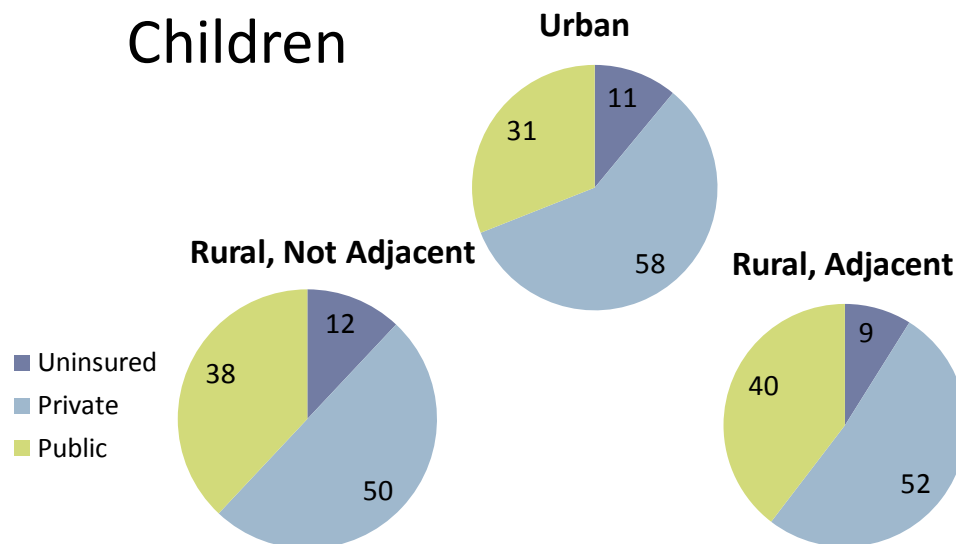
## Adults



Adults include all individuals between the ages of 18 and 64.  
Public includes Medicaid, SCHIP, Medicare, and TRICARE.  
Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$ .  
Due to rounding, some characteristics may not total 100 percent.

- Roughly two-thirds of all adults are covered by private sources, with one-quarter uninsured. Rates of adults' private coverage range from a high of 67% in urban areas to 62% in rural, not adjacent areas.
- More adults (about 24%) than children (about 10%) are uninsured; this is true regardless of location.

## Children



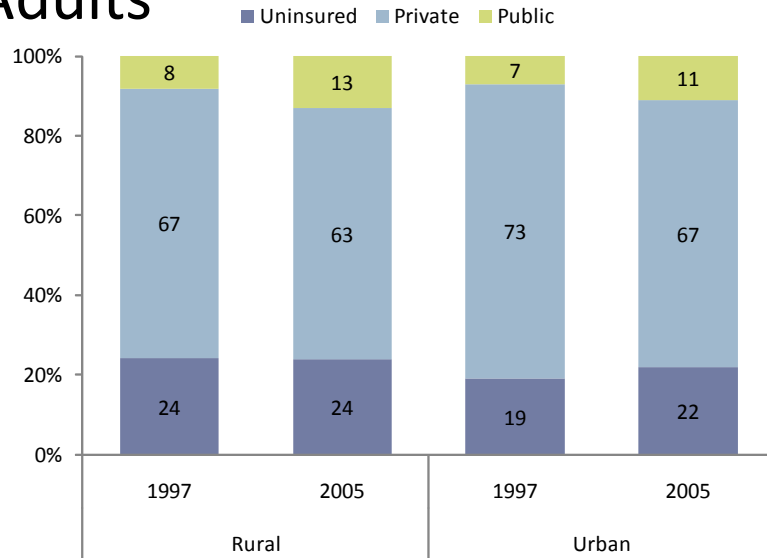
Children include all individuals younger than 18.  
Public includes Medicaid, SCHIP, Medicare, and TRICARE.  
Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$ .  
Due to rounding, some characteristics may not total 100 percent.

- Children in rural areas rely heavily on public sources (Medicaid and CHIP) for their health insurance coverage (38% in rural, not adjacent and 40% in rural adjacent areas) compared to children in urban areas (31%).
- Rural children are less likely to have private insurance than urban children (51% versus 58%).

## Chart 1.4

# Uninsured rates declined substantially for rural children between 1997 – 2005.

## Adults



Adults include all individuals between the ages of 18 and 64.

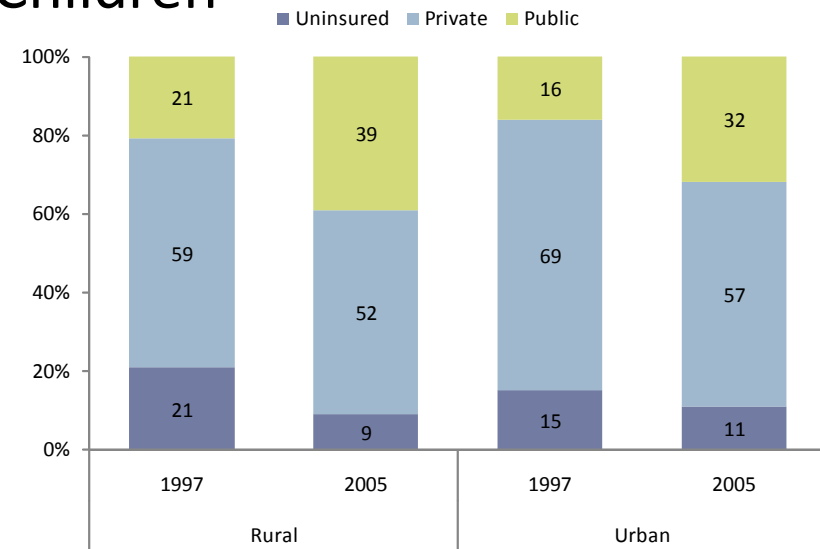
Public includes Medicaid, SCHIP, Medicare, and TRICARE.

Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence significant at  $p < .05$ .

Due to rounding, some characteristics may not total 100 percent.

## Children



Children include all individuals younger than 18.

Public includes Medicaid, SCHIP, Medicare, and TRICARE.

Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence significant at  $p < .05$ .

Due to rounding, some characteristics may not total 100 percent.

- Uninsured rates among rural adults remained unchanged from 1997 to 2005, at about 24%. Although public coverage among rural adults increased (from 8% to 13%), these gains were offset by declines in private coverage (67% to 63%).
- Between 1997 and 2005, public health insurance rates nearly doubled among rural children from 21% to 39%. Although private coverage of rural children declined during this time period, the decrease was more modest in rural (12%) than urban areas (17%). While uninsured rates declined among all children, the change was so dramatic in rural areas that, as of 2005, the uninsured rate among rural children was lower than for their urban counterparts.

## Section II

### Do Risk Factors for Being Uninsured Differ by Residence?

Demographic and economic characteristics commonly associated with being uninsured tend to be more prevalent among rural residents and appear to represent greater risk for uninsurance than among urban residents. Rural residents are more likely to be uninsured than urban residents. In addition, rural residents who are adults, white, have fewer workers in the family, live in the South, have poor health status, are not married, and have not attended college face a higher risk of being uninsured compared with urban residents with similar characteristics. Regardless of residence, low-income persons, especially adults, have twice the uninsured rate of higher-income persons.

#### Key Facts

**Certain characteristics, such as age and race/ethnicity, put individuals at greater risk of being uninsured wherever they live. However, even within these groups, the rural uninsured rate is higher.**

- Young adults (aged 18-34) have the highest uninsured rates of all age groups, particularly in rural areas where about one-third lack coverage. (Chart 2.1)
- Members of racial/ethnic minority groups have about twice the uninsured rate of non-Hispanic whites. The uninsured rate for minorities increases as population and proximity to urban areas decreases. (Chart 2.4)

**Within income groups, rural residence is not a risk factor for being uninsured.**

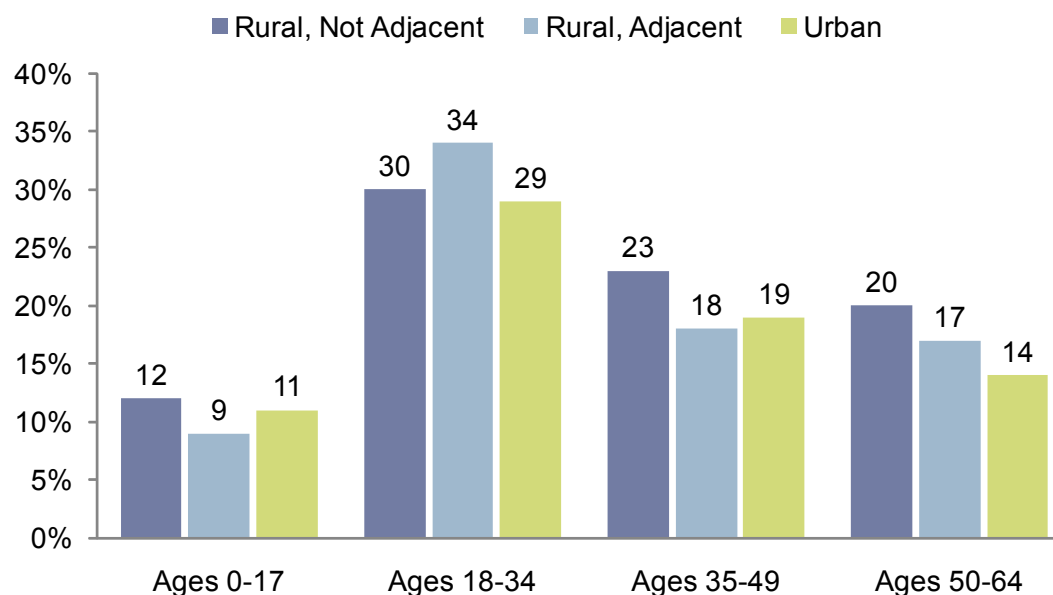
- No matter where they live, adults with family income below 200% of the FPL are more likely to be uninsured than adults with family income over that amount. (Chart 2.2)

**Compared with their urban counterparts, rural residents with more limited connections to the workforce have higher uninsured rates.**

- Among residents of rural, not adjacent areas, 23% are uninsured when there is only one full-time worker in a family. This compares with 18% for urban residents. When there are no full-time workers, 31% of rural, not adjacent residents are uninsured compared with 28% of urban residents. Among families with two full-time workers, uninsured rates are actually lower in rural not adjacent areas (10%) compared with urban (14%) and rural adjacent areas (14%). (Chart 2.3)

## Chart 2.1

**Young adults have the highest uninsured rates, particularly in urban areas; however, the largest rural-urban discrepancy is among older adults (aged 50-64).**



Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence significant at  $p < .05$  for all categories except ages 35-49.

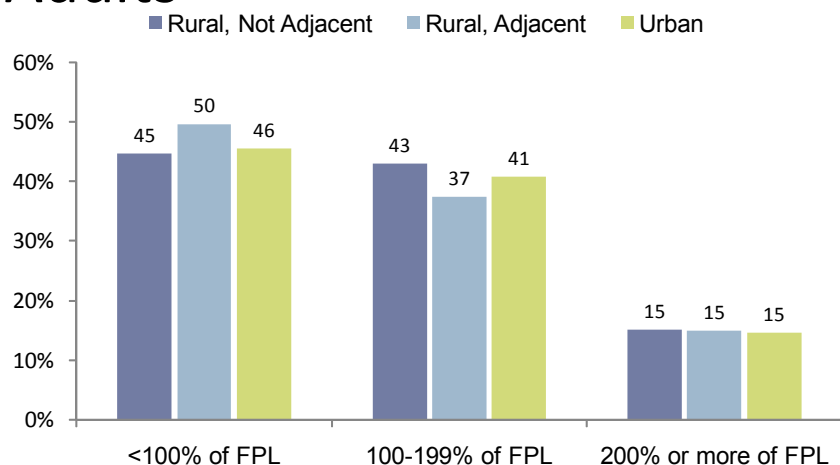
- Compared with urban residents, young adults aged 18-34 in adjacent and not adjacent areas have higher uninsured rates. Among older adults, the risk of being uninsured is greatest in rural, not adjacent areas. This is of particular concern because adults in this age group are more likely to have or develop health problems.



## Chart 2.2

# Within income groups, residence is not a risk factor for being uninsured.

## Adults



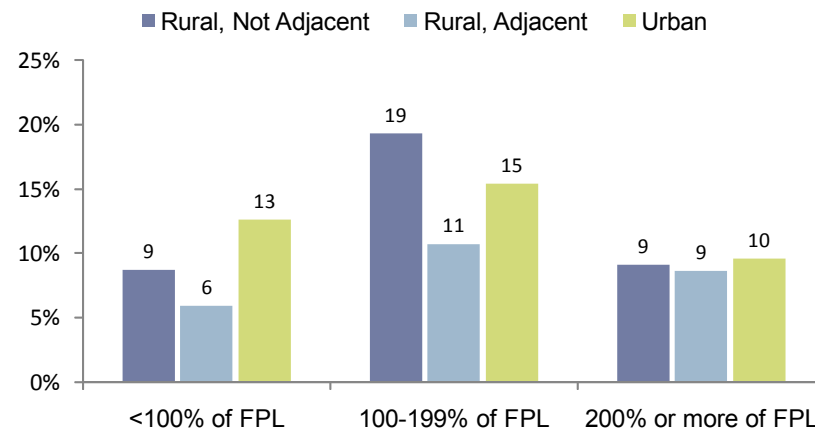
Adults include all individuals between the ages of 18 and 64.

FPL: federal poverty level. In 2004, poverty was defined as income below \$19,307 for a family of four.

Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence not significant at  $p < .05$ .

## Children



Children include all individuals younger than 18.

FPL: federal poverty level. In 2004, poverty was defined as income below \$19,307 for a family of four.

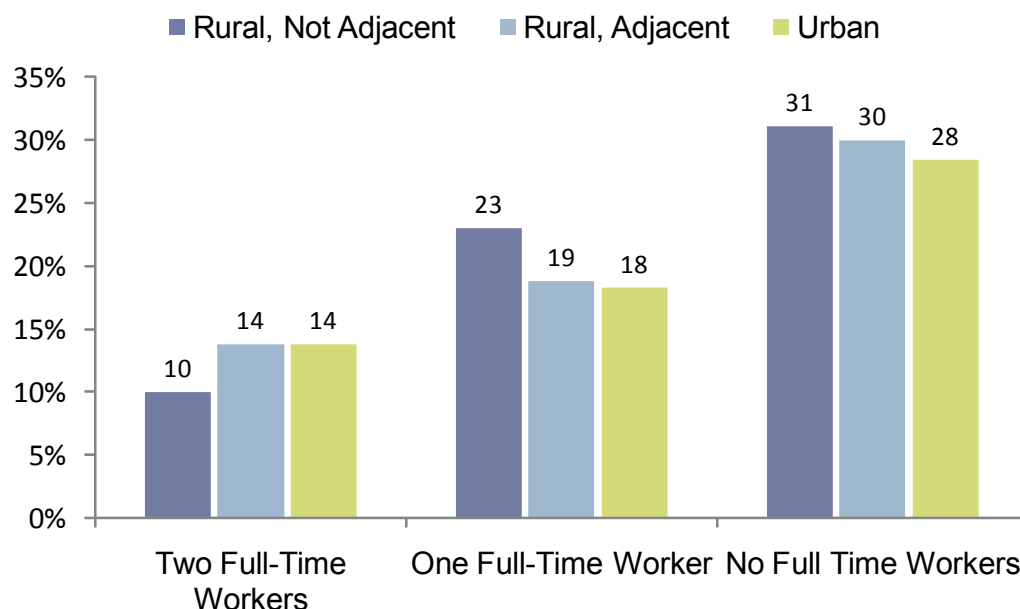
Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence not significant at  $p < .05$ .

- There are no statistically significant rural-urban differences in the likelihood of being uninsured for adults or children within the three family income categories.
- No matter where they live, adults with family income below 200% of the FPL are much more likely to be uninsured than adults with family income over that amount.
- Income is less a risk factor for children than adults in determining uninsurance. Children with family income between 100-199% of the FPL are at the highest risk of being uninsured. Children with family income below 100% of the FPL could be covered by public programs while children with family income over 200% of the FPL may have employer-sponsored insurance. Children with family income between those two groups appear to be exposed to a gap in coverage sources.

**Chart 2.3**

**Rural residents in families with only one or no full-time workers have higher uninsured rates than their urban counterparts.**

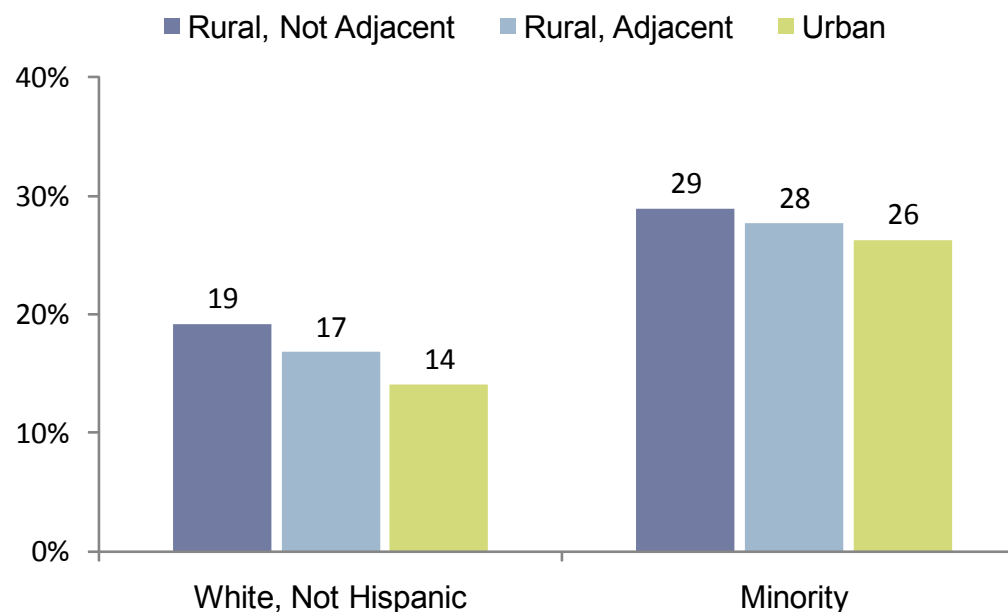


Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$ .

- Residents of rural, adjacent and urban areas have similar uninsured rates by type of family employment. However, residents of rural, not adjacent areas have higher rates of uninsurance compared to other areas when they have one or no full-time worker. Having no or one full-time worker appears to be important in explaining uninsurance among those living in more isolated rural areas.
- The likelihood of being uninsured decreases substantially as the number of full-time workers in a family increases, regardless of rural or urban location. Persons living in families with two full-time workers are less likely to be uninsured in rural, not adjacent areas (10%) compared to those in rural, adjacent and urban areas (14%).

## Chart 2.4

**Regardless of race or ethnicity, rural residents have higher uninsured rates than urban residents, but rural minorities are particularly disadvantaged.**



Minority includes all respondents who said they were either Hispanic or specified their race as other than white or multiple races.

Data: Medical Expenditure Panel Survey, 2004-05

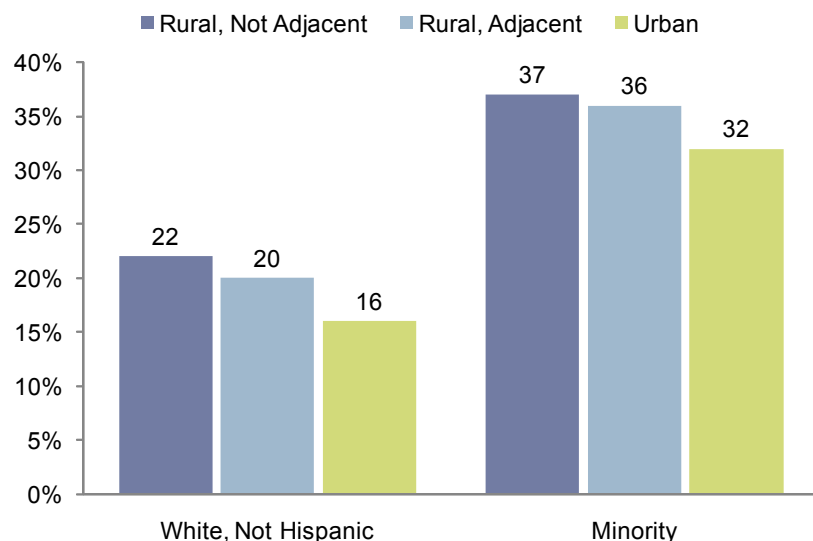
Uninsured differences by residence significant at  $p < .05$ .

- The chances of being uninsured among white, not Hispanic persons is higher for those in rural areas (19% for rural, not adjacent and 17% for rural, adjacent areas) compared to those living in urban areas (14%).
- Over one-quarter of minority persons are uninsured and this is most pronounced in rural areas.

## Chart 2.5

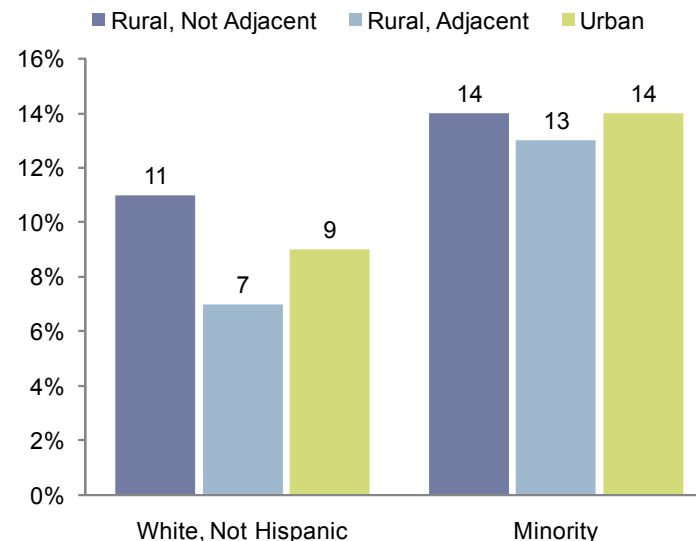
**The risk of being uninsured is higher among rural white and minority residents compared with white and minority urban residents.**

### Adults



Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$ .

### Children

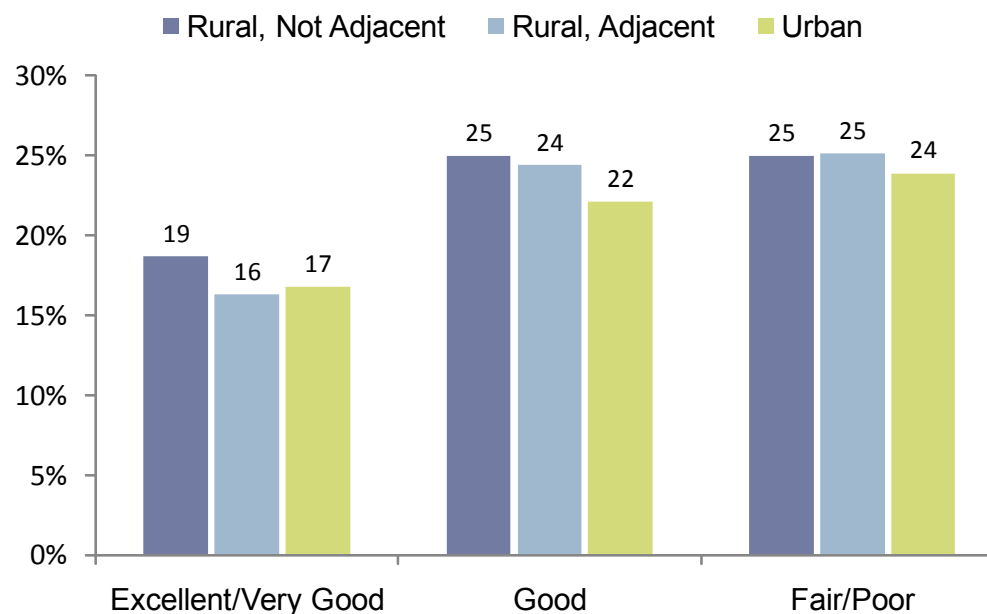


Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$ .

- The high uninsured rate for minority persons in rural areas is particularly pronounced for adults, but is much smaller for children. This difference may be a result of children's eligibility for Medicaid and CHIP.
- Children living in rural, adjacent areas have lower uninsured rates when they are white or minority, compared to children living in rural, not adjacent rural areas and urban areas.

## Chart 2.6

**While poorer health status is associated with high uninsured rates, these differences are minor across rural and urban areas.**



Health status is the respondent's perceived health status.

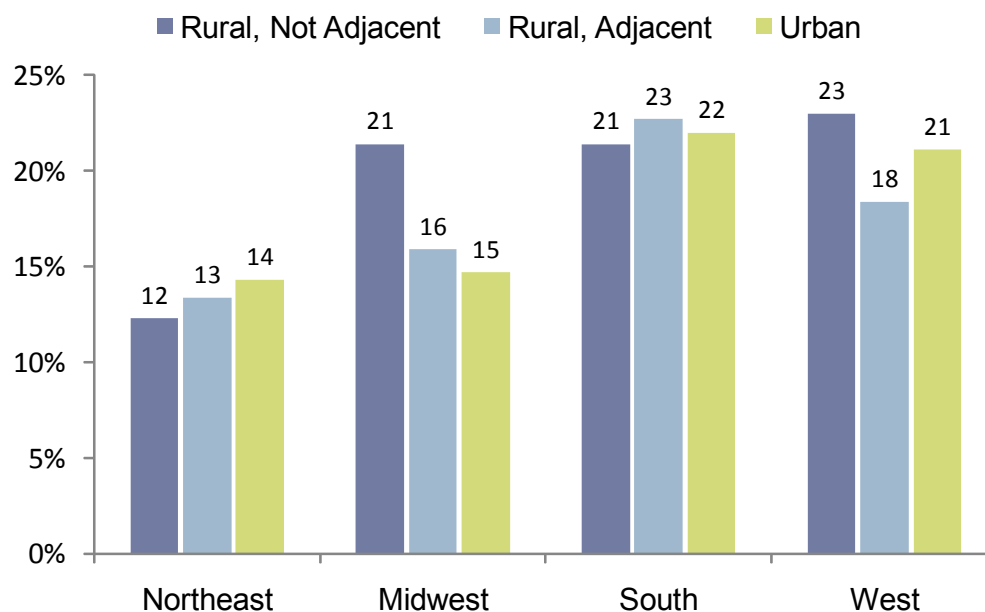
Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence significant at  $p < .05$  for excellent/very good and fair/poor only.

- Differences in uninsured rates by health status across rural-urban locations are not large, but are statistically significant. Persons in less than excellent/very good health had the highest likelihood of being uninsured, regardless of residence. Among rural residents, those who rated their health as either excellent/very good or fair/poor had higher uninsured rates compared with their urban counterparts.

Chart 2.7

**Regional differences in uninsured rates are greater than differences by residence within region.**

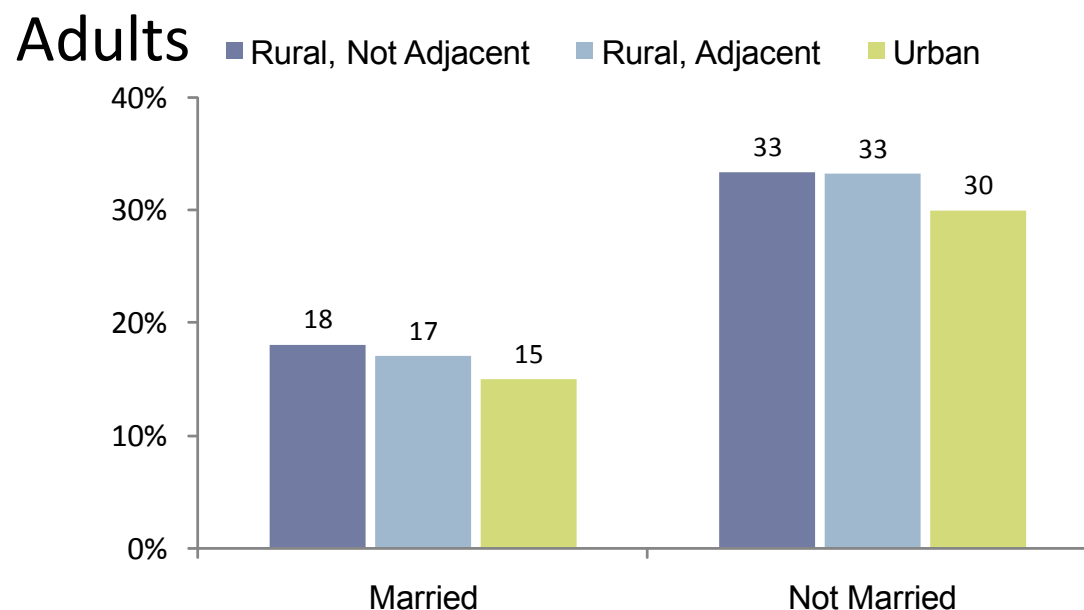


Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$  for South only.

- The overall uninsured rate in the South is higher than that of other regions. Additionally, Southern residents of rural, adjacent areas are more likely to be uninsured than Southern residents of rural, not adjacent and urban areas. Rural, not adjacent residents of the Midwest and West appear vulnerable to being uninsured though comparisons to rural, adjacent and urban areas were not significant.

Chart 2.8

**Uninsured rates are lower among married adults, regardless of residence.**



Adults include all individuals between the ages of 18 and 64.

Not married means single, divorced, or separated.

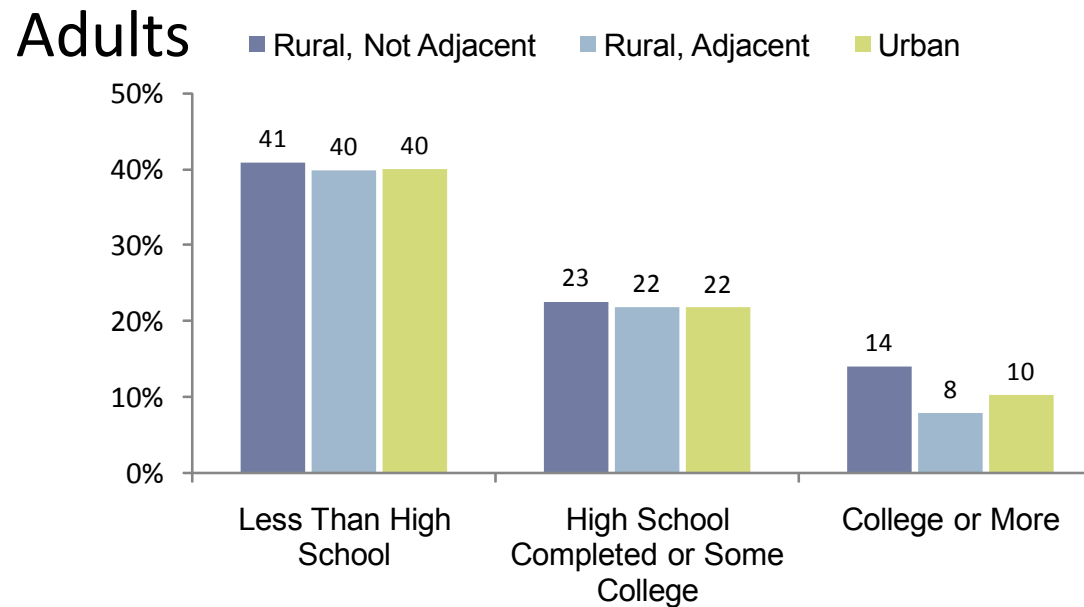
Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence significant at  $p < .05$  for not married only.

- Single, divorced or separated rural residents are more likely to be uninsured than their urban counterparts.

**Chart 2.9**

**College education reduces the risk of being uninsured, but the effect is more limited in remote rural areas.**



Adults include all individuals between the ages of 18 and 64.

Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence significant at  $p < .05$  for college or more.

- Rural residents in not adjacent areas with higher educational attainment experience higher uninsured rates (14%) compared with their counterparts in both urban (10%) and rural, adjacent areas (8%). At lower educational levels, there are no rural-urban differences.



## Section III

### Characteristics of the Rural and Urban Uninsured

In the prior section, we highlighted rural-urban differences in the socio-economic characteristics that place rural and urban residents at risk of being uninsured. In this section, we look only at the uninsured and identify differences in their characteristics based on residence. Uninsured rural residents, particularly in smaller and more remote communities, generally have characteristics that make improving coverage rates especially challenging, including being an older adult or part of a family without full-time workers, having lower income, and having low educational attainment.

#### Key Facts

**The rural uninsured are generally older and have lower incomes than their urban counterparts, and are concentrated in the South and Midwest.**

- A greater percent of the rural, not adjacent uninsured are adults over age 35 (51%), compared to uninsured older adults in rural, adjacent areas (42%) and urban areas (41%). Nearly one-fourth of the uninsured in rural non-adjacent areas are aged 50 to 64, versus 15% in urban areas. (Chart 3.1)
- Compared to half of the urban uninsured, 59% of those in rural, not adjacent areas have low family income (less than 200% of the FPL). (Chart 3.2)

- Uninsured persons in the most remote rural areas live primarily in the Midwest (42%) and South (31%); for uninsured persons living in rural areas closer to urban areas, most live in the South (59%), followed by the Midwest (20%). (Chart 3.5)

**Although racial and ethnic minorities have a greater risk of being uninsured regardless of residence, they are much more likely to live in urban areas. Thus, a greater proportion of the uninsured in rural areas are white and not Hispanic.**

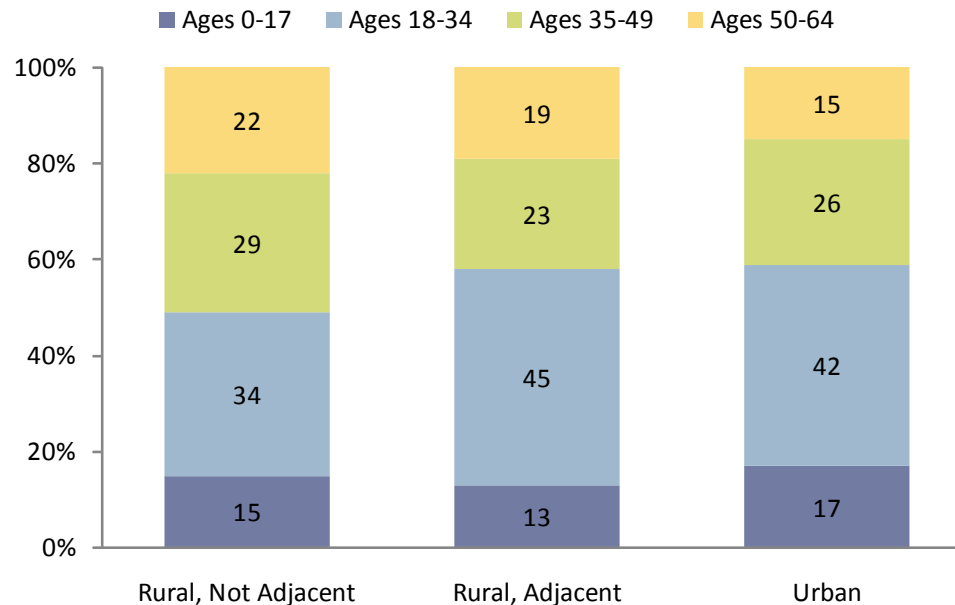
- In rural, not adjacent areas, nearly three-quarters of the uninsured are white. This figure drops to 67% in rural, adjacent areas and 47% in urban areas. (Chart 3.3)

**The rural uninsured are often part of families with no or one full-time worker, in poorer health, and have lower educational attainment.**

- In rural, not adjacent areas, 34% live in families with no full-time workers compared to 27% in urban areas. (Appendix Table 6)
- A greater percent of uninsured persons living in rural areas are in good or fair/poor health (46%) than those who live in urban areas (38%). (Chart 3.4)
- Nearly all (95%) uninsured adults in rural, adjacent areas have less than a college education. (Chart 3.7)

**Chart 3.1**

**The rural uninsured tend to be older than the urban uninsured, particularly in rural areas not adjacent to urban areas.**

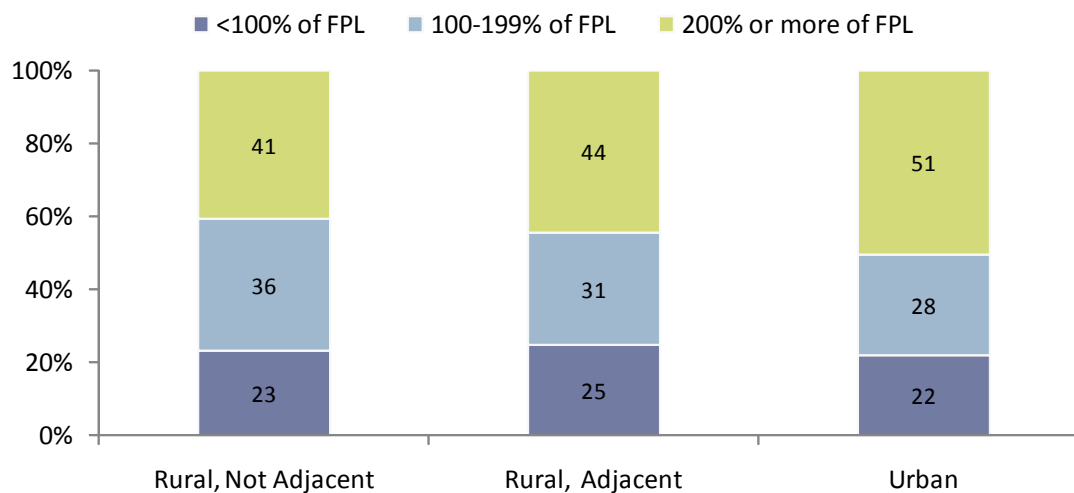


Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$ .  
Due to rounding, some characteristics may not total 100 percent.

- There are differences in the age distribution of the uninsured by rural and urban residence. A larger percent of the rural, not adjacent uninsured are older adults (over age 35) (51%), compared to the uninsured in rural, adjacent (42%) and urban areas (41%).
- Nearly one-fourth (22%) of the uninsured in rural, not adjacent areas are aged 50-64 versus 15% in urban areas.

## Chart 3.2

### The rural uninsured have lower incomes than their urban counterparts.



FPL: federal poverty level. In 2004, poverty was defined as income below \$19,307 for a family of four.

Data: Medical Expenditure Panel Survey, 2004-05

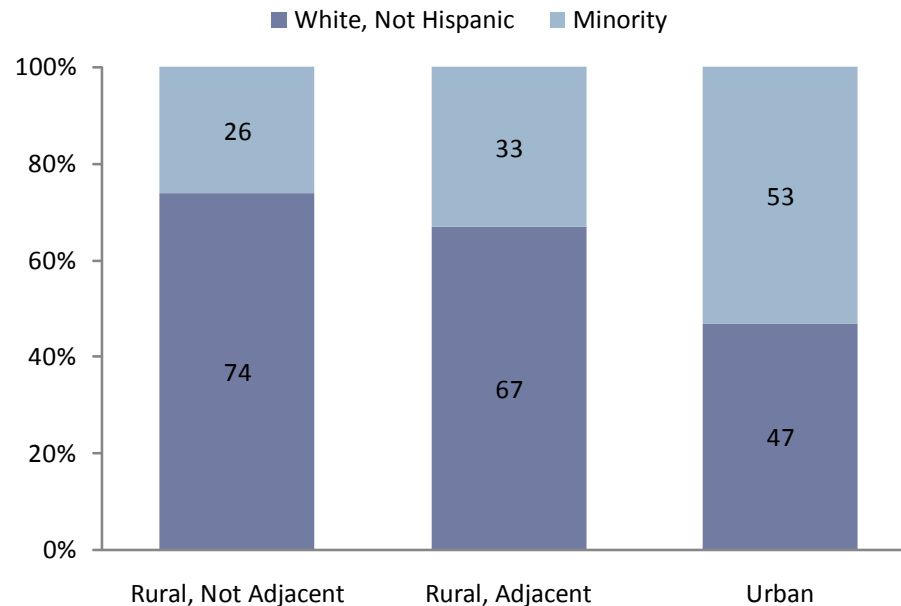
Uninsured differences by residence significant at  $p < .05$ .

Due to rounding, some characteristics may not total 100 percent.

- In rural, not adjacent areas, 59% of the uninsured are in families with income less than 200% of the FPL. This compares with 56% in rural, adjacent areas and 50% in urban areas.

### Chart 3.3

## A larger proportion of the rural than urban uninsured are white.



Not White, Not Hispanic includes all respondents who said they were not Hispanic and specified their race as other than white or multiple races.

Data: Medical Expenditure Panel Survey, 2004-05

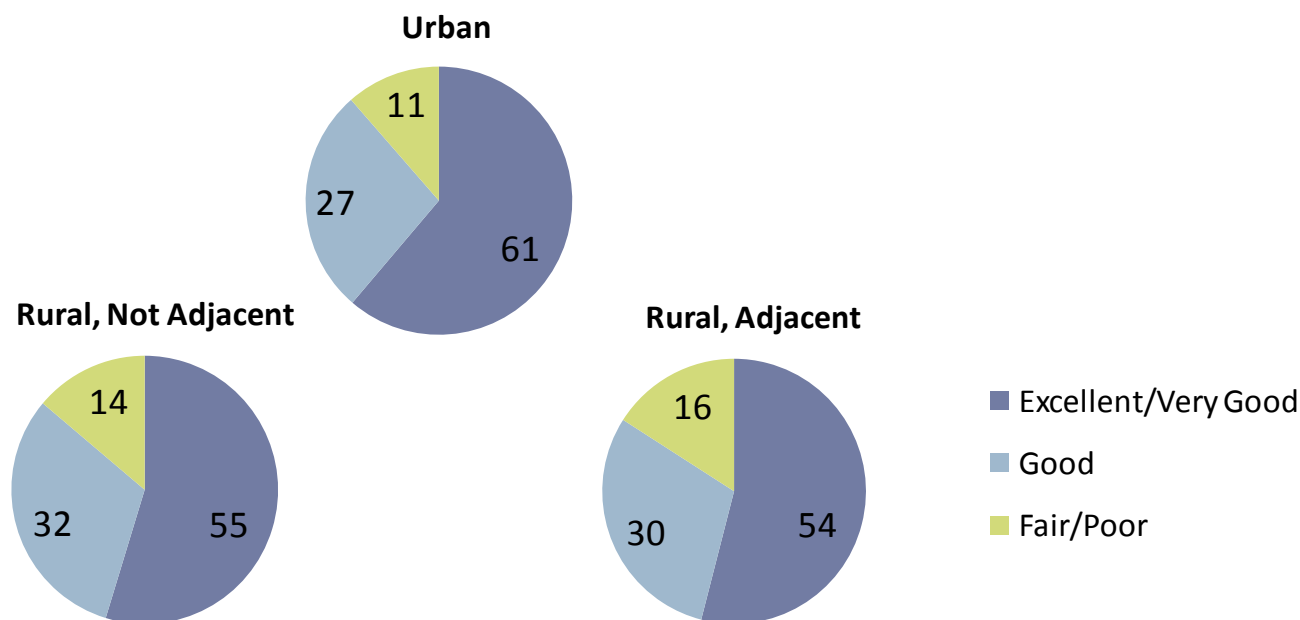
Uninsured differences by residence significant at  $p < .05$ .

Due to rounding, some characteristics may not total 100 percent.

- Although minorities face a greater risk of being uninsured in rural versus urban areas, a larger proportion of the rural than urban uninsured are white because most rural residents are white.

**Chart 3.4**

**A greater proportion of the rural than urban uninsured report they are in fair or poor health.**

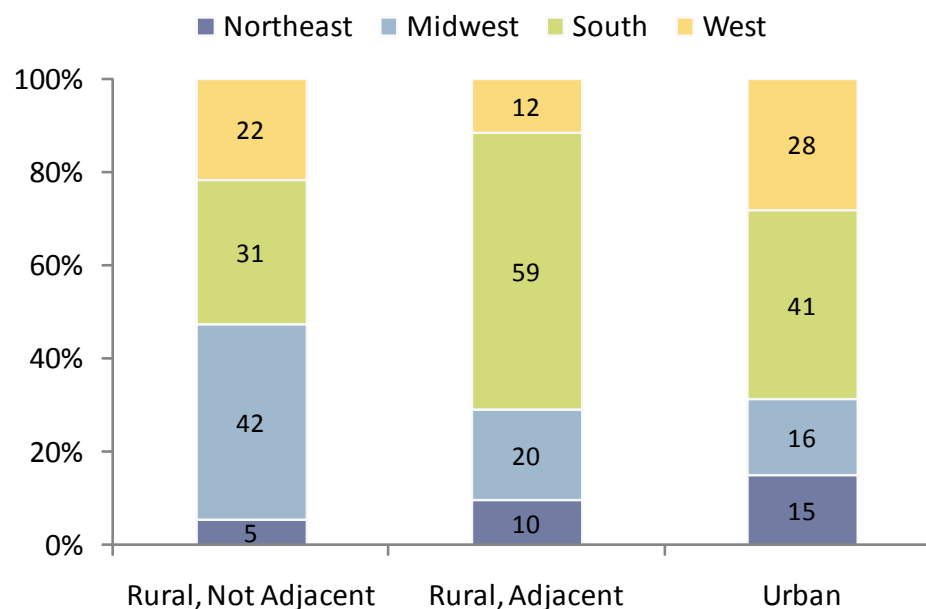


Health status is the respondent's perceived health status.  
Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$ .  
Due to rounding, some characteristics may not total 100 percent.

- A greater percent of uninsured persons living in rural areas are in good or fair/poor health (46%) compared with those who live in urban areas (38%).

## Chart 3.5

### The rural uninsured are heavily concentrated in the South and Midwest.



Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence significant at  $p < .05$ .

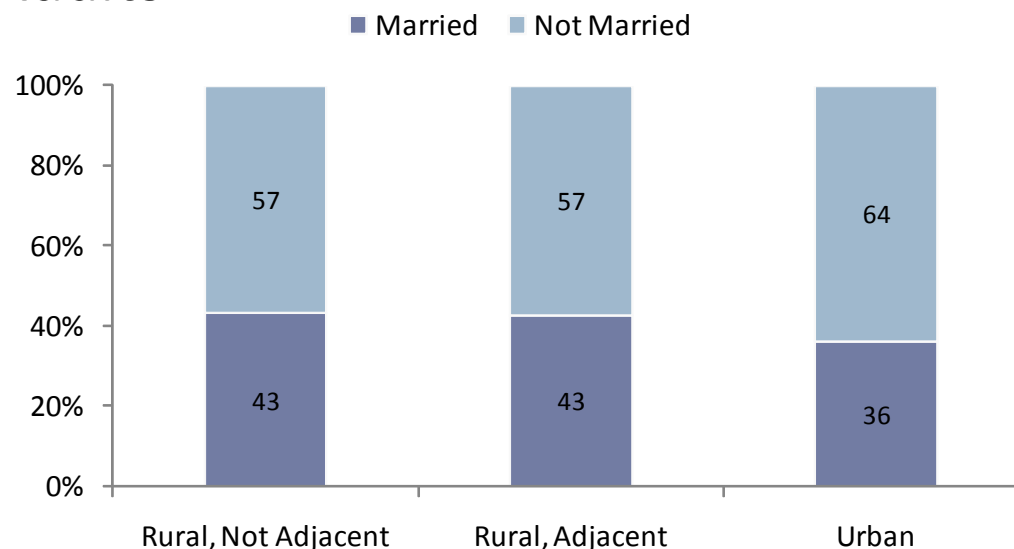
Due to rounding, some characteristics may not total 100 percent.

- The rural uninsured are most heavily concentrated in the Southern and Midwestern regions of the U.S. Nonelderly uninsured persons in the most remote rural areas live primarily in the Midwest (42%) and South (31%). Most of the rural, adjacent uninsured live in the South (59%), followed by the Midwest (20%).

Chart 3.6

**The rural uninsured are more likely than urban uninsured to be married.**

## Adults



Adults include all individuals between the ages of 18 and 64.

Not married means single, divorced, or separated.

Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence significant at  $p < .05$ .

Due to rounding, some characteristics may not total 100 percent.

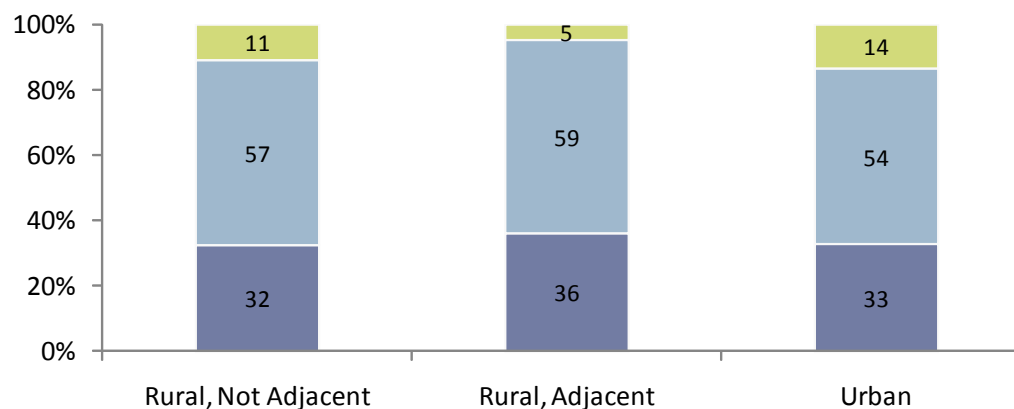
- In both not adjacent and adjacent rural areas, 43% of uninsured adults are married compared with 36% of the urban uninsured.

**Chart 3.7**

**A higher proportion of the rural versus urban uninsured have less than a college education, especially in adjacent rural areas.**

## Adults

■ Less Than High School ■ High School Completed or Some College ■ College or More



Adults include all individuals between the ages of 18 and 64.

Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence significant at  $p < .05$ .

Due to rounding, some characteristics may not total 100 percent.

- Nearly all (95%) of uninsured adults in rural, adjacent areas have less than a college education, compared with 89% in rural, not adjacent areas and 87% in urban areas.



## Section IV

### Employment and the Rural and Urban Uninsured

Rural adults are less likely to be employed in jobs where health insurance coverage is offered. Employer characteristics – such as small firm size and low wages – influence the likelihood of being uninsured for rural residents. When rural adults work a part-time schedule or are self-employed, they face an additional risk of being uninsured. This section examines employment characteristics for all workers, uninsured rates for workers by employer type, and characteristics of uninsured workers across rural and urban residence.

#### Key Facts

**Rural adults are less likely to be in situations where they would be offered employer-sponsored health insurance.**

- Rural adults are less likely to be employed than urban adults or, when employed more likely to work part-time, for a small employer, and to make less than \$10 per hour. (Charts 4.1 and 4.2)

**Compared to uninsured urban adults, uninsured rural adults are more likely to be not employed or to work for employers that do not sponsor health insurance coverage.**

- Nearly one-third (30%) of uninsured rural residents are not employed compared to 27% of urban residents. (Chart 4.3)
- In rural, not adjacent areas, 64% of working adults are offered coverage through their employer compared to 71% in urban areas. This difference persists for full-time workers, with 75% of workers

in rural, not adjacent areas offered coverage, compared to 81% in urban areas. (Chart 4.4)

- When coverage is offered, 95% of rural and urban workers are enrolled. (Chart 4.4)

**The rural uninsured often work for small firms and are paid low wages.**

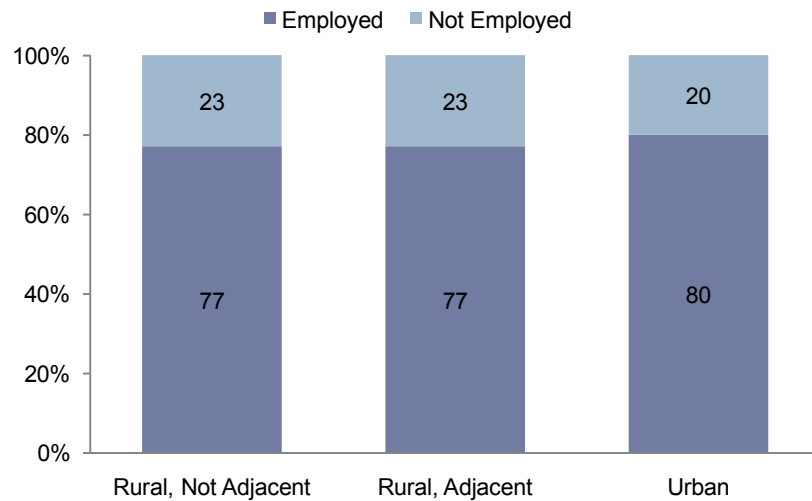
- Workers employed by small firms represent 69% of the uninsured in rural, not adjacent areas compared to 59% in adjacent and urban areas. (Chart 4.7)
- In rural, not adjacent areas, low-wage workers represent 67% of the uninsured, compared to 52% in urban areas. (Chart 4.9)

**Self-employed and part-time workers are more likely to be uninsured in remote rural areas.**

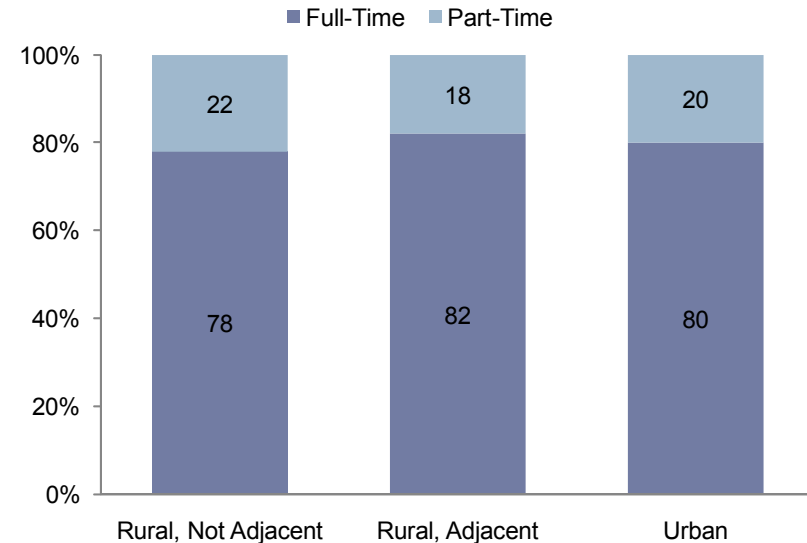
- A greater proportion of self-employed workers living in rural, not adjacent areas are uninsured (40%), compared to self-employed workers in rural, adjacent (24%) and urban (32%) areas. (Chart 4.10)
- Of the uninsured in rural, not adjacent areas, one-third is self-employed, compared to 14% in rural, adjacent areas and 20% in urban areas. (Chart 4.11)
- Almost one-third (30%) of the uninsured in rural, not adjacent areas work part-time compared to 27% in urban and rural adjacent areas. (Chart 4.5)

**Chart 4.1**

**Rural adults are less likely to be employed and less likely to have full-time employment than urban adults.**



Adults only are included here, defined as all individuals between the ages of 18 and 64.  
Data: Medical Expenditure Panel Survey, 2004-05  
Differences by residence significant at  $p < .05$ .

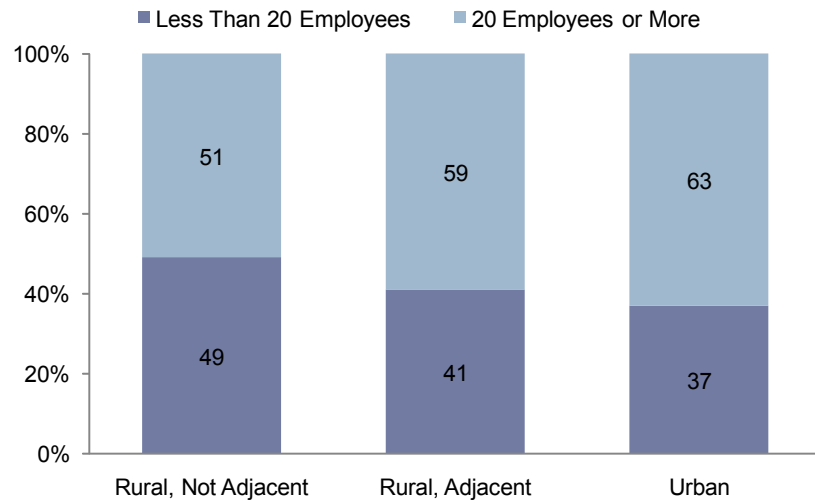


Full-time defined as 35 or more working hours; part-time defined as less than 35 hours. Workers only included.  
Data: Medical Expenditure Panel Survey, 2004-05  
Differences by residence not significant at  $p < .05$ .

- A greater proportion of rural adults are not employed (23%) than urban adults (20%).
- Workers in not adjacent rural areas are less likely to have full-time employment than workers in rural, adjacent and urban areas. In rural, not adjacent areas, 78% of workers have a full-time position, compared to 80% in urban areas, and 82% in rural, adjacent areas.

## Chart 4.2

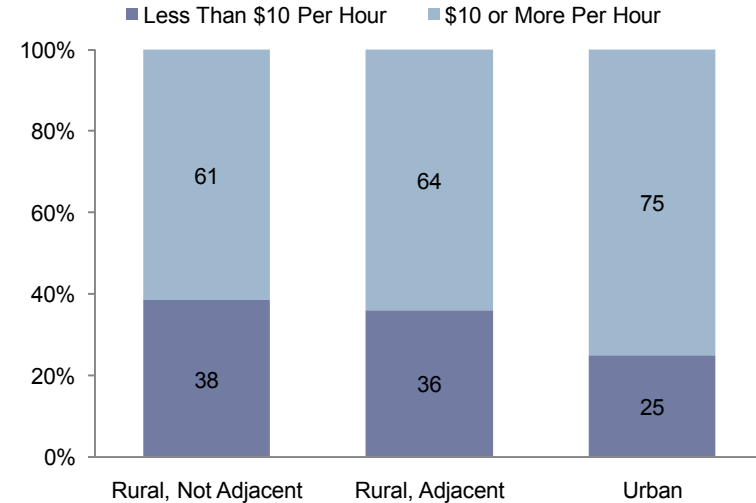
**A greater proportion of rural workers is employed by small firms and paid low wages than urban workers.**



Workers only included.

Data: Medical Expenditure Panel Survey, 2004-05

Differences by residence significant at  $p < .05$ .



Workers only included.

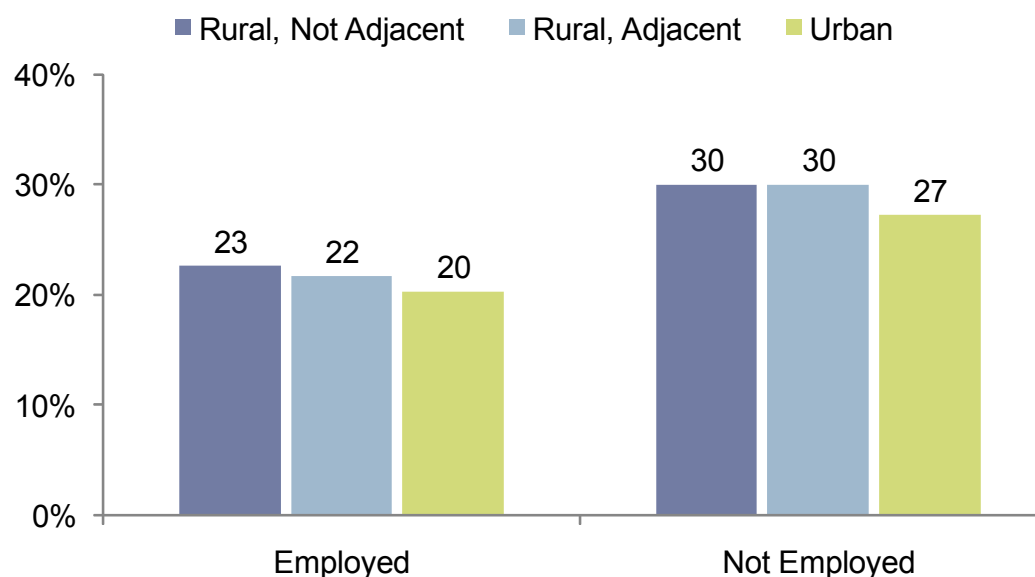
Data: Medical Expenditure Panel Survey, 2004-05

Differences by residence significant at  $p < .05$ .

- A greater proportion of rural, not adjacent workers is employed by firms with less than 20 employees (49%) than rural, adjacent (41%) and urban workers (37%).
- More workers in rural, not adjacent (38%) and adjacent (36%) areas are paid less than \$10 per hour compared to workers in urban areas (25%).

**Chart 4.3**

**Unemployed rural adults are at greatest risk of being uninsured.**



Adults only are included here, defined as all individuals between the ages of 18 and 64.

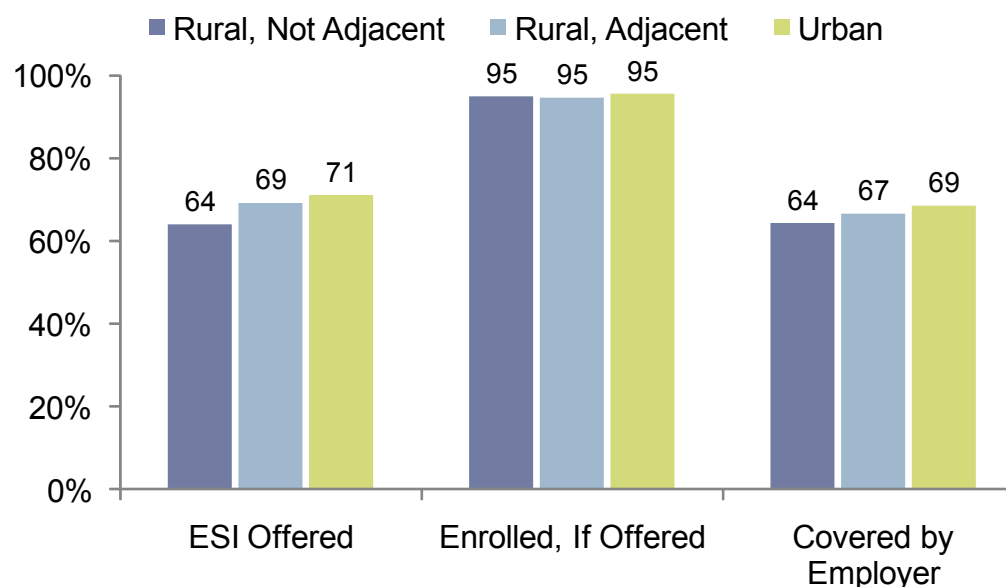
Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence significant at  $p < .05$  for not employed only.

- Regardless of employment status, rural adults are more likely to be uninsured than urban adults. However, the uninsured rate is highest among rural adults that are not currently working.

**Chart 4.4**

**Rural workers are less likely to be offered employer coverage compared to urban workers.**



ESI: Employer-Sponsored Insurance

Data: Medical Expenditure Panel Survey, 2004-05

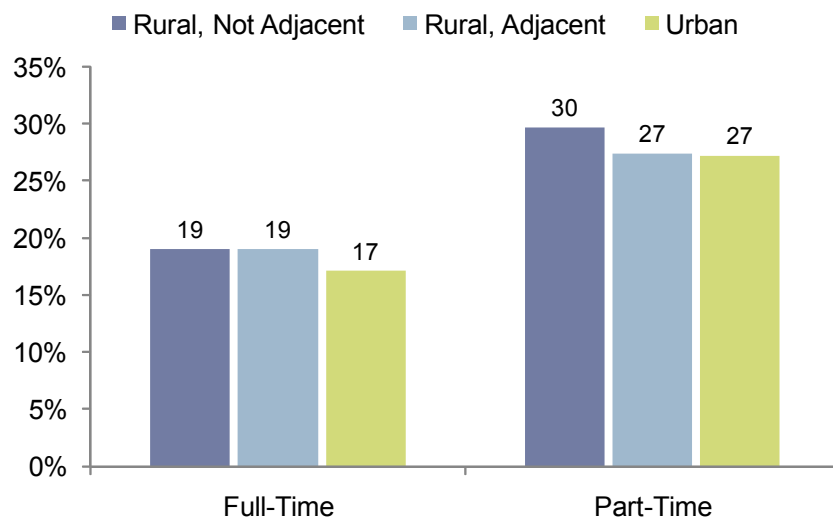
Differences by residence significant at  $p < .05$  for ESI offered only.

- Rural residents are less likely than urban residents to work for an employer that offers health insurance. In rural, not adjacent areas, 64% of working adults are offered coverage through their employer compared to 71% in urban areas.
- When coverage is offered by an employer, it is nearly always accepted (95%), without a difference by residence.

## Chart 4.5

**Rural workers are less likely to be offered employer-sponsored coverage than urban workers even when they work full-time.**

### Uninsured Rate

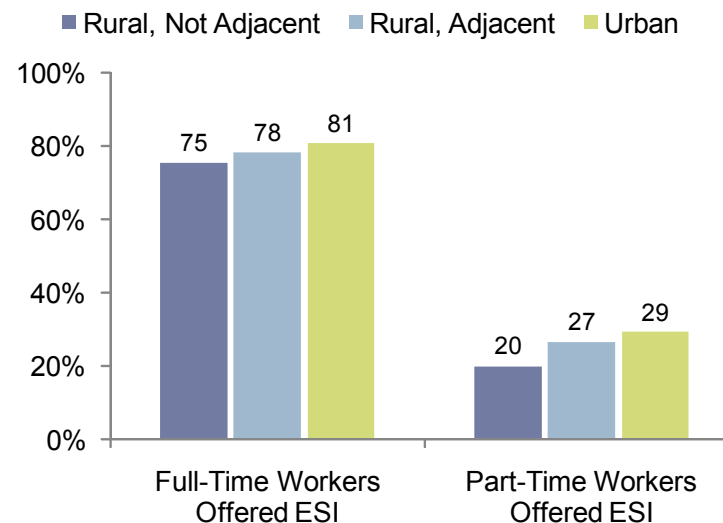


Full-time defined as 35 or more working hours; part-time defined as less than 35 hours.

Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence significant at  $p < .05$ .

### Workers Offered Coverage



Full-time defined as 35 or more working hours; part-time defined as less than 35 hours.

ESI: Employer-Sponsored Insurance

Data: Medical Expenditure Panel Survey, 2004-05

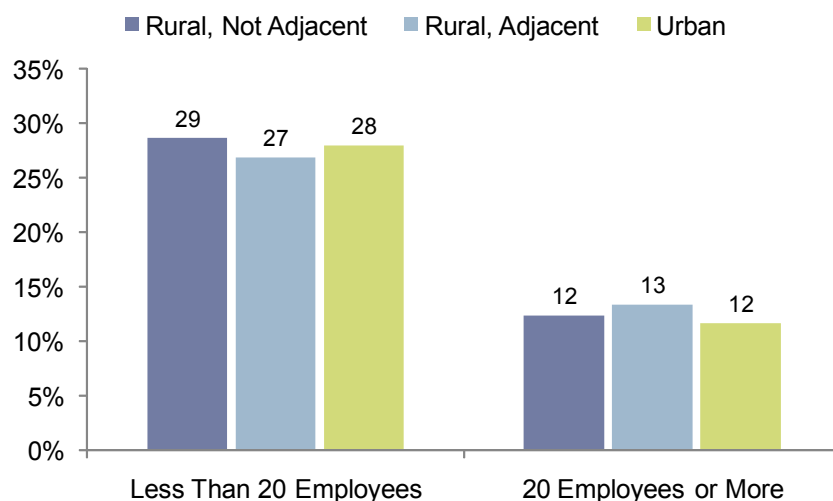
Differences by residence significant at  $p < .05$  for full-time only.

- More full-time rural workers are uninsured (19%) compared to full-time urban workers (17%). Among part-time workers, a greater proportion are uninsured in rural, not adjacent areas (30%) compared to rural, adjacent and urban areas (27%).
- Fewer employers in rural, not adjacent areas (75%) offer their full-time employees insurance compared to 81% of employers in urban areas. Less than a third of employers of part-time workers offer insurance overall, and this proportion declines to 20% in rural, not adjacent areas.

## Chart 4.6

**Small firm size is associated with being uninsured and these differences do not vary by residence.**

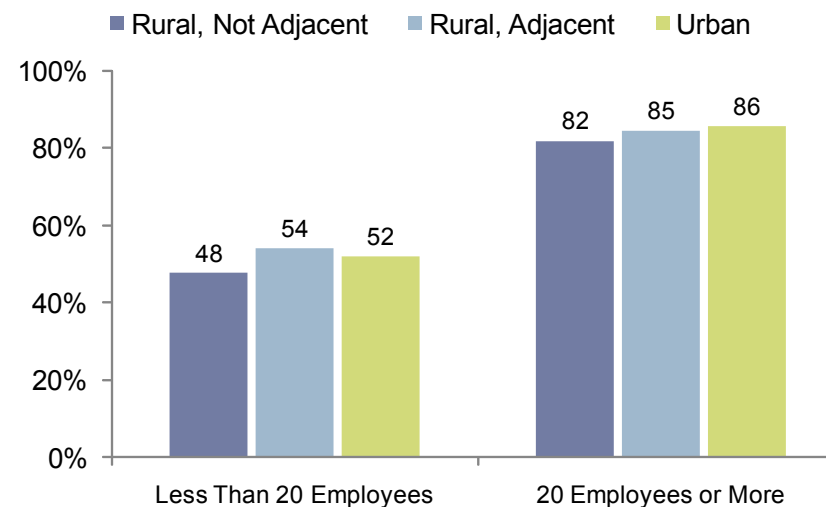
### Uninsured Rate



Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence not significant at  $p < .05$ .

### Workers Offered Coverage



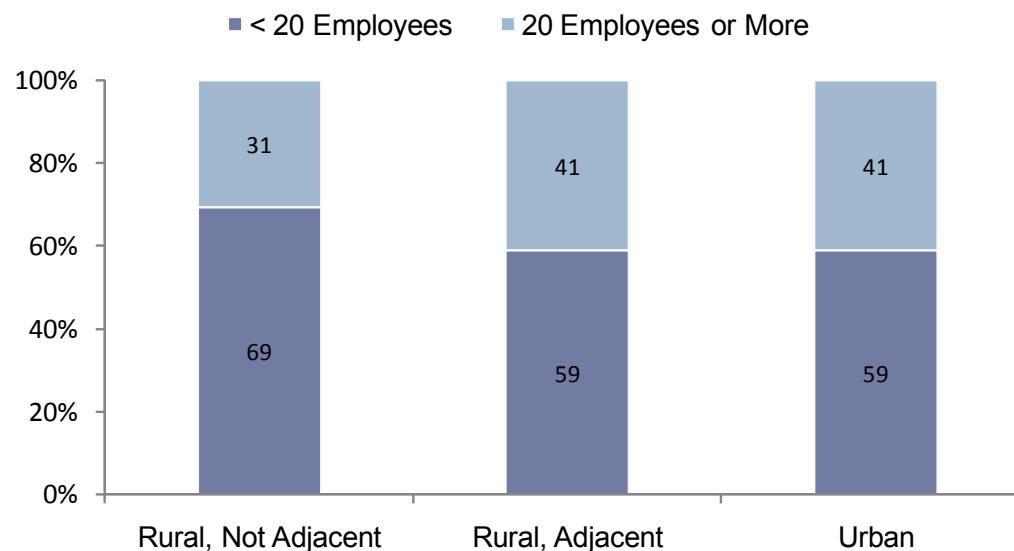
Data: Medical Expenditure Panel Survey, 2004-05

Coverage differences by residence not significant at  $p < .05$ .

- Workers in small firms are more likely to be uninsured than workers in large firms, though differences are not significant by residence.
- Workers employed by small firms (less than 20 employees) are less likely to be offered health insurance, while most workers employed by large firms (20 or more employees) are offered health insurance.

**Chart 4.7**

**Small firms employ more than two-thirds of the uninsured in remote rural areas.**



Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$ .

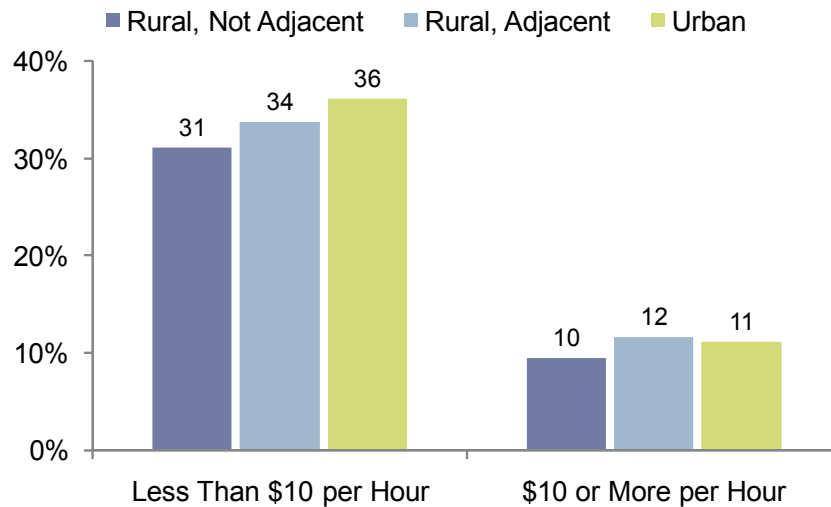
- Workers employed by small firms (less than 20 employees) make up the majority of the uninsured no matter where they live. However, workers employed by small firms represent 69% of the uninsured in rural, not adjacent areas compared to 59% in adjacent and urban areas.



## Chart 4.8

# Low-wage workers in rural areas are more likely to be offered health insurance than low-wage workers in urban areas.

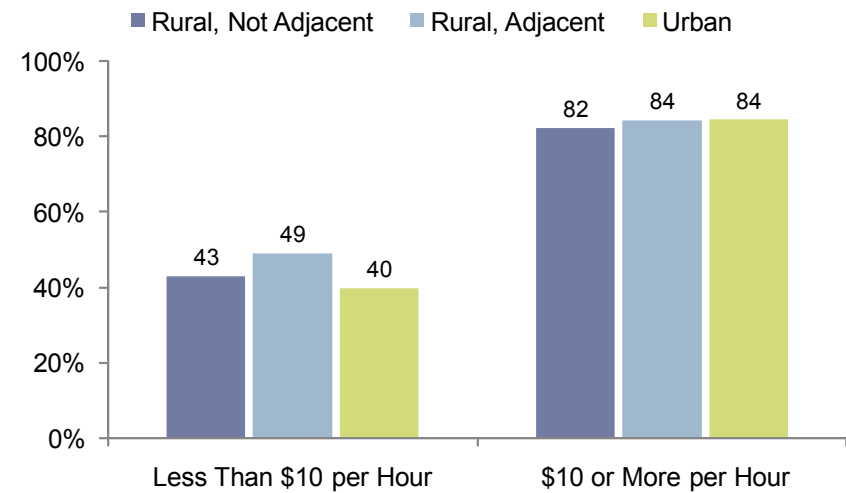
### Uninsured Rate



Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence not significant at  $p < .05$ .

### Workers Offered Coverage



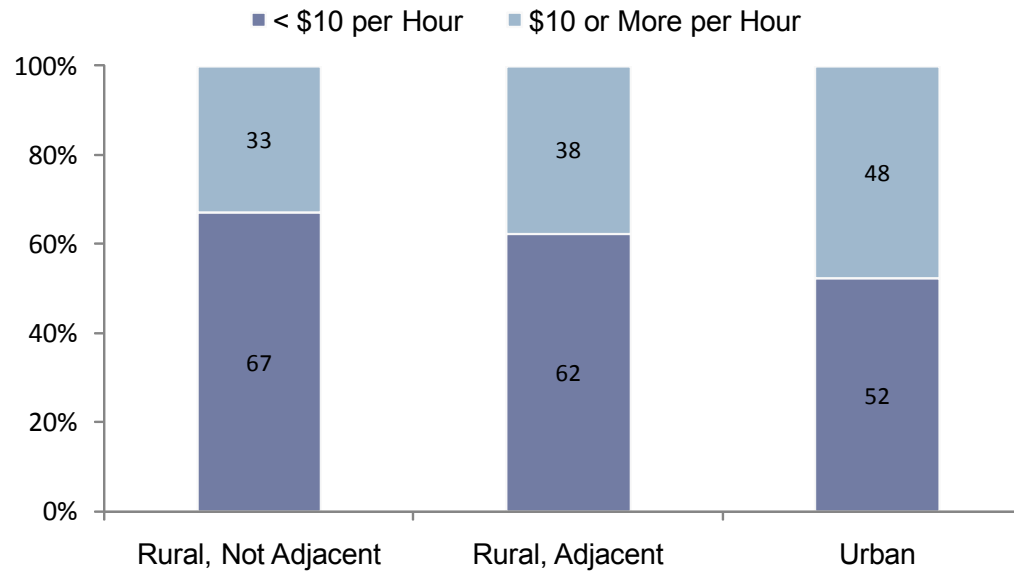
Data: Medical Expenditure Panel Survey, 2004-05

Coverage differences by residence significant at  $p < .05$  for less than \$10 per hour only.

- More low-wage urban workers (36%) are uninsured compared to low-wage rural, not adjacent workers (31%), though these differences are not statistically significant. When wages are over \$10 an hour, only 10-12% of workers are uninsured.
- Over 80% of workers paid an hourly wage of \$10 or more are offered coverage and this does not differ by residence.
- When workers are paid an hourly wage of less than \$10, they are half as likely to be offered health insurance as other higher paid workers. Low-wage workers in rural, not adjacent (43%) and rural, adjacent areas (49%) are more likely than low-wage workers in urban areas (40%) to be offered insurance.

**Chart 4.9**

**A greater proportion of the uninsured are low-wage workers in remote rural areas compared to more populated areas.**



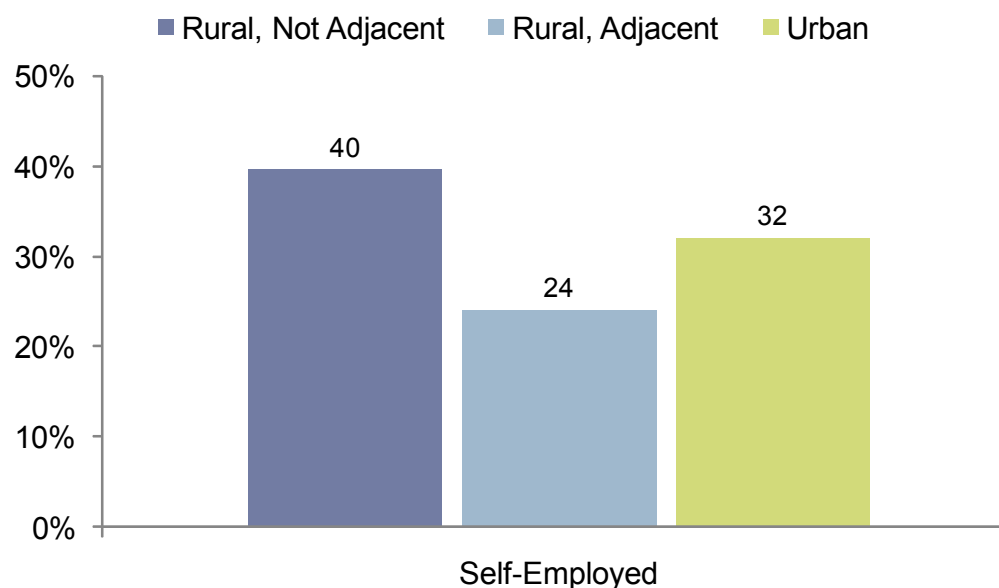
Data: Medical Expenditure Panel Survey, 2004-05

Uninsured differences by residence not significant at  $p < .05$ .

- Low-wage workers (those paid less than \$10 an hour) make up the majority of uninsured workers in rural areas. In rural, not adjacent areas low-wage workers represent 67% of the uninsured, compared to 52% in urban areas.

**Chart 4.10**

**Self-employed workers are more likely to be uninsured in remote rural areas.**

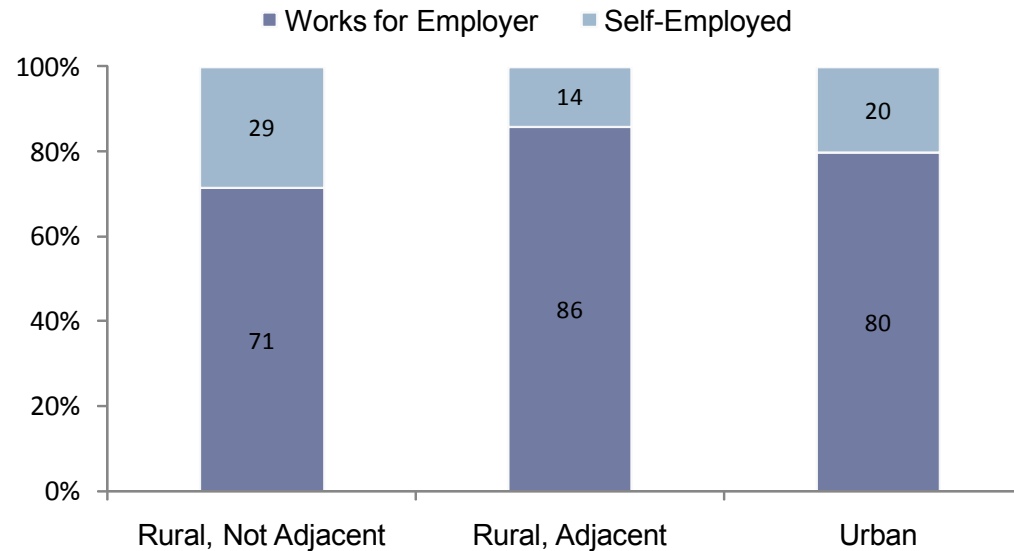


Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$ .

- A greater proportion of self-employed workers living in rural, not adjacent areas are uninsured (40%), compared to self-employed workers in rural, adjacent (24%) and urban (32%) areas.

## Chart 4.1 I

**A greater proportion of the uninsured is self-employed in remote rural areas than in more populated rural and urban areas.**



Data: Medical Expenditure Panel Survey, 2004-05  
Uninsured differences by residence significant at  $p < .05$ .

- More than one-fourth of uninsured workers in rural, not adjacent areas is self-employed (29%), compared to 14% in rural, adjacent areas and 20% urban areas.

## Section V

### Policy Implications for Covering the Rural Uninsured

Our findings offer several policy implications for improving insurance coverage among persons living in rural areas as federal and state policymakers consider reforms to the US health care system. Residents of rural areas are more likely to be uninsured or to have public coverage compared to urban residents and to have demographic, economic, and employment characteristics that elevate their risk of being uninsured. The differences between the rural and urban uninsured influence the viability and effectiveness of potential policy options, differences that should be considered when examining proposals to insure more Americans.

- **Rural residents are in greater need of health reform, as demonstrated by their higher uninsured rates—particularly in the most remote rural communities.**

Comparing urban counties to rural counties that abut them (rural adjacent), the same proportion of residents is uninsured (19%). However, uninsured rates increase as population becomes sparser and proximity to urban areas becomes more remote. In the most rural communities (population less than 2,500) the uninsured rate is 23%.

This rural-urban disparity in coverage is driven by higher uninsured rates among rural adults, among whom both the likelihood of being uninsured, and the difference compared to urban residents is higher than for children.

- **Public sources of coverage (Medicaid and CHIP) are an important source of health insurance for rural Americans and have dramatically reduced the uninsured rate among children over the past decade.**

One-fifth of rural residents under age 65 have health insurance from a public source, primarily Medicaid or CHIP, compared to 17% of urban residents. This reliance on public coverage is especially high among rural children, of whom nearly 40% have public coverage versus 30% of urban children.

Following the enactment of CHIP in 1997, public health insurance coverage rates doubled among rural children. Although private coverage of children during this same period declined in both rural and urban areas, the rural change was slightly smaller. The result was a dramatic decline in uninsured rates among rural children (from 21% to 9%). While urban children also saw a reduction in uninsurance, it was much more modest (from 15% to 11%). Rural gains in coverage were so pronounced that, as of 2005, rural children were at lower risk of being uninsured than their urban counterparts.

The success of public expansions on reducing the uninsured rate among rural children suggests the importance of maintaining and expanding access to public coverage especially among rural adults. Given that well over half of all uninsured rural adults have incomes below 200% of the FPL, even modest eligibility expansions could have an observable impact on rural coverage.

- **Improving rates of private coverage may be particularly challenging in rural areas, where employment characteristics make it difficult to sustain viable insurance pools.**

Workers in rural areas are somewhat more likely than urban workers to be self-employed (14% versus 12%; Appendix Table 1). The self-employed may gain private coverage from another family member, although rural families are less likely to contain two full time workers. They may also purchase private health insurance directly from an insurance company, becoming “individually” insured.

Among the employed, only 67% of rural employees work for a firm that offers coverage compared to 71% of urban employees. The principal reason is that rural employees are more likely to work for small firms that tend to face the combined pressures of higher health insurance premiums costs and smaller operating margins.

Options considered for increasing private coverage may have important rural implications. For example, requiring employers to buy coverage for their workers (“employer mandates”) will be less effective in rural areas if small employers or part-time workers are excluded, as is typically the case. Beyond the goal of expanding rural coverage, the economic impact on rural employers is an important additional consideration.

Establishing insurance purchasing pools (called “alliances,” or “exchanges”) may increase affordability for rural employers and individuals, although experience suggests that small group alliances have not increased coverage.<sup>14</sup> Alternatively, small groups and individuals could access existing public purchasing pools such as the Federal Employees Health Benefits Program (FEHBP). This may level the playing field for rural purchasers both because the FEHBP guarantees access to a carrier, and because it could address rural price

disadvantages. However, research indicates that even within the FEHBP, many rural areas have few plan choices.<sup>15</sup> One way to address this might be to develop a public plan buy-in option for rural areas where private plans are limited or non-existent.

Because many uninsured have no access to employer-based coverage, analysts suggest that tax credits for individual insurance would be an effective solution. Given rural residents’ looser connection to the full-time, year-round employment market, this option could have a distinct rural benefit. Seasonal, part-time, and self-employed workers could gain better access to private coverage that was portable if work circumstances changed. One possible negative consequence could be an increase in the number of “underinsured” rural residents given that individual plans often have more limited benefits and greater cost-sharing. To increase rural coverage, any tax credits for individual insurance would need to be large and paid when insurance premiums are due rather than as an annual tax refund.

- **Whether based on public or private plans, reform efforts to expand health insurance coverage to rural Americans must be affordable for lower income individuals and families.**

Policy interventions should consider the limited means of the rural uninsured. For example, the creation of a public buy-in option may need to have sliding-scale premiums or subsidies to ensure the greatest rural participation. The same is true of private plan options—given their lower incomes, rural residents may be less likely to buy voluntary plans and more likely to struggle to afford a mandatory program.

## Methods

**Data.** Our data analyses were conducted on a combined file of the 2004 and 2005 Medical Expenditure Panel Survey (MEPS). The MEPS is a nationally representative panel survey conducted by the Agency for Healthcare Research and Quality (AHRQ). We used data from the Household Component of the MEPS, which interviews a sample of families and individuals in selected communities across the United States. During the household interviews, MEPS collected detailed information for each person in the household on the following: demographic characteristics, health conditions, health status, use of medical services, charges and source of payments, access to care, satisfaction with care, health insurance coverage, income, and employment.

**Defining Rural.** Multiple definitions exist for identifying rural areas. These definitions use counties, zip codes, or census tracts in combination with population, commuting patterns, and/or proximity to a metropolitan (metro) area to define rural areas. Though the Office of Management and Budget's (OMB) standards for metro areas are not intended to identify urban and rural areas, many national health datasets and federal programs use these standards as a proxy for urban and rural areas. OMB defined metro areas include one or more counties containing a core urban area of 50,000 population or more; other counties may be considered metro based on commuting patterns to the core. Non-metropolitan (non-metro) areas are those outside the boundaries of metro areas. The MEPS dataset includes OMB's categories.

Our own work<sup>4</sup> and that of others<sup>16</sup> suggest that rural and urban definitions beyond the traditional dichotomy of metro and non-metro assist policymakers and researchers in identifying differences in access and use of health services by residence.

We linked the MEPS to the 2003 Rural-Urban Continuum Codes (RUCCs) through the Area Resource File. Developed by the Department of Agriculture, the RUCCs distinguish counties based on their metro and non-metro status, population size, and adjacency and non-adjacency to a metro area. The RUCCs sub-divide counties into three metro and six non-metro groupings, resulting in a nine category classification.<sup>†</sup> We combined the three metro groupings into a single category and then combined the six non-metro groupings into two categories: non-metro counties adjacent to metro counties and non-metro counties not adjacent to metro counties. We isolated rural, adjacent counties from non-adjacent counties since the former have a higher degree of social and economic integration with adjoining urban areas.<sup>17</sup>

**Analysis.** Data were analyzed and weighted using the mortality and poverty-adjusted weights created by AHRQ. Unless otherwise stated, all findings from our own analyses of the MEPS data discussed within this chartbook met or exceeded our standard of statistical significance ( $P \leq 0.05$ ).

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<sup>†</sup> The 2003 Rural-Urban Continuum Codes are based on the 2000 Census. The three metropolitan (metro) county groupings are (1) counties in metro areas of 1 million or more population; (2) counties in metro areas of 250,000 to 1 million population; and (3) counties in metro areas of fewer than 250,000 population. The six non-metropolitan (non-metro) groupings are (4) urban population of 20,000 or more, adjacent to a metro area; urban population of 20,000 or more, not adjacent to a metro area; (6) urban population of 2,500 to 19,999, adjacent to a metro area; (7) urban population of 2,500 to 19,999, not adjacent to a metro area; (8) completely rural or less than 2,500 urban population, adjacent to a metro area; and (9) completely rural or less than 2,500 urban population, not adjacent to a metro area.

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## APPENDIX: Data Tables 1-18

**Table 1. Characteristics of Survey Respondents by Place of Residence, 2004-05**

Characteristic	Total N=57,866	Rural, Non-Adjacent N=3,613	Rural, Adjacent N=6,416	Rural, Total N=10,029	Urban N=47,837
Age*					
0-17	29.3	28.4	29.3	29.0	29.3
18-34	26.2	23.2	25.0	24.4	26.6
35-49	25.0	26.3	24.1	24.9	25.0
50-64	16.5	22.2	21.6	21.8	19.1
Sex					
Male	49.9	49.0	50.4	49.9	49.9
Female	50.1	51.0	49.6	50.1	50.1
Income Level***					
< 100%	13.2	16.1	15.4	15.6	12.7
100-199%	17.2	22.3	21.2	21.6	16.4
200% or more	69.6	61.6	63.4	62.8	70.9
Family Employment ** (Adults Only)					
Two full-time workers	30.0	30.5	32.1	31.5	29.6
One full-time worker	51.1	45.2	48.0	47.0	51.9
No full-time worker	19.0	24.2	20.0	21.5	18.5
Minority Status***					
White, not Hispanic	64.7	81.1	76.9	78.4	62.0
Minority	35.3	18.9	23.1	21.6	38.0
Health Status***					
Excellent/Very Good	66.9	61.1	63.6	62.7	67.7
Good	23.4	26.7	23.7	24.8	23.1
Fair/Poor	9.7	12.2	12.7	12.5	9.2
Region***					
Northeast	18.3	9.0	13.7	12.1	19.5
Midwest	22.2	41.1	23.8	29.9	20.7

Table 1 continued

<b>Characteristic</b>	<b>Total</b> N=57,866	<b>Rural, Non-Adjacent</b> N=3,613	<b>Rural, Adjacent</b> N=6,416	<b>Rural, Total</b> N=10,029	<b>Urban</b> N=47,837
South	36.0	30.4	50.3	43.2	34.6
West	23.4	19.5	12.2	14.8	25.1
Marital Status (Adults Only)					
Married	54.5	58.3	59.1	58.9	53.6
No Spouse	45.5	41.7	40.8	41.1	46.4
Education Level (Adults Only)					
Less than high school	18.2	19.3	21.4	20.6	17.7
High school or some college	55.3	61.8	63.8	63.1	53.8
College or more	26.5	18.9	14.8	16.3	28.5
Employment Status** (Adults Only)					
Employed	79.4	77.3	76.7	76.9	79.9
Not Employed	20.6	22.7	23.3	23.1	20.1
Work Status (Workers Only)					
Full-time	80.3	78.1	82.4	80.9	80.2
Part-time	19.7	21.9	17.6	19.1	19.8
Firm Size*** (Workers Only)					
Less than 20 employees	38.1	49.4	41.4	44.3	37.0
20 or more employees	61.9	50.6	58.6	55.7	63.0
Employee's Wage*** (Workers Only)					
Less than \$10 per hour	27.1	38.6	36.3	37.1	25.3
\$10+ per hour	72.9	61.4	63.7	62.9	74.7
Self-Employed	12.5	15.4	12.6	13.6	12.3

\*Differences significant at  $p \leq .05$ \*\*Differences significant at  $p \leq .01$ \*\*\*Differences significant at  $p \leq .001$ 

‡ Due to rounding some characteristics may not total 100 percent.

**Table 2. Percent Uninsured in 2004-05 and Mean Number of Months Uninsured in 2004-05 by Place of Residence\*\***

Place of Residence	Percent Uninsured, 2004-05 N=13,211	Mean # of Months Uninsured, 2004-05
Total	18.9	8.8
Less than 2,500	22.7	9.4
Rural, Non-Adjacent	21.0	9.2
Rural, Adjacent	19.3	8.9
Rural, Total	19.9	9.0
Urban	18.7	8.8

\*\*Differences significant at  $p \leq .01$

Note: Rural, not adjacent may differ from other tables because here it excludes places with population less than 2,500.

**Table 3. Rates of Uninsurance in 2004-05 by Socio-Economic Characteristics and Place of Residence**

<b>Characteristic</b>	<b>Total</b> N=13,211	<b>Rural, Non-Adjacent</b> N=863	<b>Rural, Adjacent</b> N=1,439	<b>Rural, Total</b> N=2,302	<b>Urban</b> N=10,909
Age					
0-17***	11.0	11.8	8.5	9.6	11.3
18-34***	29.9	30.4	34.4	33.0	29.3
35-49	19.5	22.9	28.4	20.1	19.4
50-64*	14.9	20.2	17.0	18.2	14.2
Sex					
Male**	20.7	22.6	19.4	21.6	20.5
Female*	17.2	21.0	17.5	18.2	17.0
Income Level					
< 100%	32.0	30.6	31.2	31.0	32.3
100-199%	31.5	34.9	28.1	30.5	31.8
200% or more	13.4	13.7	13.5	13.6	13.4
Family Employment					
Two full-time workers**	13.6	10.5	13.8	12.6	13.8
One full-time worker**	18.6	23.0	18.8	20.2	18.3
No full-time worker*	28.8	31.1	30.0	30.4	28.4
Minority Status					
White, not Hispanic***	14.8	19.2	16.8	17.7	14.1
Minority***	26.5	28.9	27.7	28.1	26.3
Health Status					
Excellent/Very Good**	16.8	18.7	16.3	17.1	16.8
Good	22.5	25.0	24.4	24.6	22.1
Fair/Poor*	24.1	25.0	25.1	25.1	23.9
Region					
Northeast	14.2	12.3	13.4	13.1	14.3
Midwest*	15.5	21.4	15.9	18.6	14.7
South**	22.1	21.4	22.7	22.4	22.0
West	21.0	23.5	18.4	20.8	21.1

Table 3 continued

<b>Characteristic</b>	<b>Total</b> N=13,211	<b>Rural, Non-Adjacent</b> N=863	<b>Rural, Adjacent</b> N=1,439	<b>Rural, Total</b> N=2,302	<b>Urban</b> N=10,909
Marital Status (Adults Only)					
Married, Spouse Present*	15.1	18.1	17.1	17.4	14.6
No Spouse***	30.4	33.4	33.2	33.3	30.0
Education Level (Adults Only)					
Less than high school	40.1	40.9	39.9	40.3	40.0
High school or some college	21.8	22.6	21.9	22.1	21.8
College or more*	10.3	14.1	7.9	10.5	10.3

\*Differences significant at  $p \leq .05$

\*\*Differences significant at  $p \leq .01$

\*\*\*Differences significant at  $p \leq .001$

**Table 4. Rates of Uninsurance Among Children in 2004-05 by Socio-Economic Characteristics and Place of Residence**

<b>Characteristic</b>	<b>Total N=2,550</b>	<b>Rural, Non-Adjacent N=148</b>	<b>Rural, Adjacent N=210</b>	<b>Rural, Total N=358</b>	<b>Urban N=2,192</b>
Sex					
Male**	10.8	12.2	9.5	10.4	10.9
Female*	11.3	11.4	7.6	8.9	11.8
Income Level					
< 100%*	11.5	8.7	5.9	6.8	12.6
100-199%	15.0	19.4	10.7	13.7	15.4
200% or more	9.5	9.1	8.6	8.8	9.6
Family Employment					
Two full-time workers	9.5	9.7	9.6	9.6	9.5
One full-time worker**	11.6	12.2	8.1	9.5	11.9
No full-time worker**	12.0	13.7	8.0	10.1	12.3
Minority Status					
White, not Hispanic***	8.7	11.1	6.7	8.3	8.8
Minority***	14.3	13.9	12.8	13.1	14.5

\*Differences significant at  $p \leq .05$

\*\*Differences significant at  $p \leq .01$

\*\*\*Differences significant at  $p \leq .001$

**Table 5. Rates of Uninsurance Among Adults in 2004-05 and Place of Residence**

<b>Characteristic</b>	<b>Total</b> N=10,661	<b>Rural, Non-Adjacent</b> N=715	<b>Rural, Adjacent</b> N=1,229	<b>Rural, Total</b> N=1,944	<b>Urban</b> N=8,717
Age					
18-34***	29.9	30.4	34.4	33.0	29.3
35-49	19.5	22.9	28.4	20.1	19.4
50-64*	14.9	20.2	17.0	18.2	14.2
Sex					
Male***	24.8	26.5	25.7	25.9	24.6
Female*	19.5	22.6	21.6	22.0	19.0
Income Level					
< 100%	45.9	44.6	49.6	47.7	45.5
100-199%	40.5	42.9	37.4	39.4	40.8
200% or more	14.7	15.1	15.0	15.0	14.6
Family Employment					
Two full-time workers	15.1	10.7	15.4	13.8	15.4
One full-time worker*	21.6	27.7	23.4	24.8	21.0
No full-time worker*	34.9	36.6	37.7	37.2	34.4
Minority Status					
White, not Hispanic***	16.9	22.0	20.4	21.0	16.0
Minority**	32.7	36.7	36.3	36.4	32.3
Health Status					
Excellent/Very Good	20.0	22.2	20.9	21.4	19.8
Good	25.1	28.1	27.7	27.9	24.6
Fair/Poor*	25.2	26.2	26.7	26.5	24.9
Region					
Northeast	16.6	13.5	16.5	15.7	16.7
Midwest*	18.3	25.0	19.8	22.4	17.2
South*	26.2	25.9	28.1	27.5	25.9
West	23.7	26.5	20.9	23.5	23.8



Table 5 continued

<b>Characteristic</b>	<b>Total</b> N=10,661	<b>Rural, Non-Adjacent</b> N=715	<b>Rural, Adjacent</b> N=1,229	<b>Rural, Total</b> N=1,944	<b>Urban</b> N=8,717
Marital Status					
Married, Spouse Present*	15.1	18.1	17.1	17.4	14.6
No Spouse***	30.5	33.4	33.2	33.3	30.0
Education Level					
Less than high school	40.1	40.9	39.9	40.3	40.0
High school or some college	21.8	22.6	21.9	22.1	21.8
College or more*	10.3	14.1	7.9	10.5	10.3
Employment Status					
Employed	20.5	22.6	21.7	22.0	20.3
Not Employed***	27.7	30.5	30.0	30.2	27.2
Work Status (Workers Only)					
Full-time	17.4	18.9	18.6	18.7	17.1
Part-time	27.4	29.7	27.4	28.3	27.2
Firm Size (Workers Only)					
Less than 20 employees	28.3	28.7	26.9	27.6	28.5
20 or more employees	11.9	12.4	13.4	13.1	11.7
Employee's Wage (Workers Only)					
Less than \$10 per hour*	35.4	31.1	33.7	32.7	36.1
20 or more employees	11.1	9.5	11.6	10.9	11.1
Self-Employed* (Workers Only)	31.7	39.6	23.5	30.1	32.0

\*Differences significant at  $p \leq .05$ \*\*\*Differences significant at  $p \leq .001$

**Table 6. Characteristics of All Uninsured in 2004-05 by Place of Residence**

<b>Characteristic</b>	<b>Total</b> N=13,211	<b>Rural, Non-Adjacent</b> N=863	<b>Rural, Adjacent</b> N=1,439	<b>Rural, Total</b> N=2,302	<b>Urban</b> N=10,909
Age***					
0-17	16.7	15.4	12.7	13.6	17.3
18-34	41.8	34.1	44.9	40.9	42.0
35-49	26.0	28.9	23.3	25.4	26.2
50-64	15.5	21.7	19.1	20.1	14.6
Sex					
Male	54.4	52.7	54.7	54.0	54.5
Female	45.6	47.3	45.3	46.0	45.5
Income Level**					
< 100%	22.1	23.0	24.6	24.0	21.7
100-199%	28.5	36.1	30.9	32.9	27.6
200% or more	49.4	40.8	44.5	43.1	50.7
Family Employment					
Two full-time workers	21.7	15.5	23.0	20.2	22.0
One full-time worker	50.4	50.2	46.9	48.1	50.9
No full-time worker	27.9	34.3	30.1	31.7	27.2
Minority Status***					
White, not Hispanic	50.7	74.2	66.8	69.6	46.8
Minority***	49.4	25.8	33.2	30.4	53.2
Health Status***					
Excellent	60.0	54.7	54.0	54.2	61.2
Very Good/Good	27.9	31.5	30.1	30.6	27.4
Fair/Poor	12.0	13.8	15.9	15.1	11.4
Region***					
Northeast	13.7	5.3	9.5	7.9	14.9
Midwest	18.3	42.0	19.6	28.0	16.3
South	42.0	31.0	59.2	48.7	40.6
West	26.0	21.7	11.7	15.4	28.2

Table 6 continued

<b>Characteristic</b>	<b>Total</b> N=13,211	<b>Rural, Non-Adjacent</b> N=863	<b>Rural, Adjacent</b> N=1,439	<b>Rural, Total</b> N=2,302	<b>Urban</b> N=10,909
Marital Status**					
Married	37.2	43.1	42.7	42.9	36.0
No Spouse	62.8	56.9	57.3	57.1	64.0
Education Level***					
Less than high school	33.0	32.2	36.0	34.6	32.6
High school or some college	54.6	56.9	59.0	58.6	53.8
College or more	12.4	10.9	5.0	7.1	13.6

\*Differences significant at  $p \leq .05$

\*\*Differences significant at  $p \leq .01$

\*\*\*Differences significant at  $p \leq .001$

**Table 7. Characteristics of Uninsured Children in 2004-05 by Place of Residence**

<b>Characteristic</b>	<b>Total N=2,550</b>	<b>Rural, Non-Adjacent N=148</b>	<b>Rural, Adjacent N=210</b>	<b>Rural, Total N=358</b>	<b>Urban N=2,192</b>
Sex					
Male	50.0	49.8	55.5	53.1	49.5
Female	50.0	50.2	44.5	46.9	50.5
Income Level					
< 100%	19.2	16.6	15.3	15.9	19.7
100-199%	28.8	44.2	32.3	37.3	27.4
200% or more	52.0	39.2	52.4	46.8	52.8
Family Employment					
Two full-time workers	24.5	24.3	35.6	30.9	23.5
One full-time worker	56.9	52.3	47.9	49.8	58.1
No full-time worker	18.6	23.4	16.5	19.4	18.4
Minority Status**					
White, not Hispanic	45.7	72.5	55.4	62.6	43.0
Minority	54.3	27.5	44.6	37.4	57.0

\*Differences significant at  $p \leq .05$

\*\*Differences significant at  $p \leq .01$

\*\*\*Differences significant at  $p \leq .001$

‡ Due to rounding, some characteristics may not total 100 percent.

**Table 8. Characteristics of Uninsured Adults in 2004-05 by Place of Residence**

<b>Characteristic</b>	<b>Total N=10,661</b>	<b>Rural, Non-Adjacent N=715</b>	<b>Rural, Adjacent N=1,229</b>	<b>Rural, Total N=1,944</b>	<b>Urban N=8,717</b>
Age					
18-34	50.1	40.2	51.4	47.3	50.7
35-64	49.9	59.8	48.6	52.7	49.3
Sex					
Male	55.3	53.3	54.6	54.1	55.5
Female	44.7	46.8	45.4	45.9	44.5
Income Level***					
< 100%	22.6	24.2	26.0	25.3	22.1
100-199%	28.4	34.7	30.7	32.2	27.6
200% or more	48.9	41.1	43.3	42.5	50.3
Family Employment*					
Two full-time workers	21.1	13.9	21.2	18.5	21.6
One full-time worker	49.1	49.8	46.7	47.9	49.4
No full-time worker	29.8	36.3	32.0	33.6	29.0
Minority Status***					
White, not Hispanic	51.6	74.5	68.5	70.7	47.6
Minority	48.4	25.5	31.5	29.3	52.4
Health Status***					
Excellent	56.5	52.0	51.5	51.7	57.6
Very Good/Good	29.8	32.1	31.0	31.4	29.5
Fair/Poor	13.7	16.0	17.5	16.9	13.0
Region***					
Northeast	14.0	5.1	9.6	8.0	15.2
Midwest	18.6	42.3	19.9	28.1	16.5
South	42.6	31.3	59.7	49.3	41.2
West	24.8	21.3	10.8	14.6	27.0

Table 8 continued

<b>Characteristic</b>	<b>Total</b> N=10,661	<b>Rural, Non-Adjacent</b> N=715	<b>Rural, Adjacent</b> N=1,229	<b>Rural, Total</b> N=1,944	<b>Urban</b> N=8,717
Marital Status**					
Married	37.2	43.1	42.7	42.9	36.0
No Spouse	62.8	56.9	57.3	57.1	64.0
Education Level***					
Less than high school	33.0	32.2	36.0	34.6	32.6
High school or some college	54.6	56.9	59.0	58.6	53.8
College or more	12.4	10.9	5.0	7.1	13.6
Employment Status*					
Employed	74.1	71.7	70.5	70.9	74.8
Not Employed	25.9	28.3	29.5	29.1	25.2
Work Status (Workers Only)					
Full-time	72.1	69.5	76.1	73.6	71.9
Part-time	27.9	30.5	23.9	26.4	28.2
Firm Size* (Workers Only)					
Less than 20 employees	59.4	69.3	58.7	62.7	58.7
20 or more employees	40.6	30.7	41.3	37.3	41.3
Employee's Wage*** (Workers Only)					
Less than \$10 per hour	54.4	67.2	62.4	64.0	52.5
\$10+ per hour	45.6	32.8	37.6	36.0	47.5
Self-Employed** (Workers Only)	20.2	28.6	14.5	19.7	20.3

\*Differences significant at  $p \leq .05$ \*\*Differences significant at  $p \leq .01$ \*\*\*Differences significant at  $p \leq .001$

**Table 9. Insurance Status of Children and Adults in 2004-05, by Place of Residence**

	<b>Total</b>	<b>Rural, Non-Adjacent</b>	<b>Rural, Adjacent</b>	<b>Rural, Total</b>	<b>Urban</b>
<b>Children</b>	N=19,441	N=1,162	N=2,105	N=3,267	N=16,174
Type of Coverage**					
None	11.0	11.8	8.5	9.6	11.3
Private	56.8	50.1	51.9	51.3	57.8
Public	32.2	38.1	39.5	39.0	30.9
Coverage Across 2004-05					
Insured All Year	82.0	81.4	85.8	84.3	81.5
Uninsured Part Year	12.3	10.3	12.5	11.1	12.5
Uninsured All Year	5.7	6.0	3.9	6.0	4.6
<b>Adults</b>	N=37,781	N=2,398	N=4,240	N=6,638	N=31,143
Type of Coverage**					
None	22.1	24.5	23.6	23.9	21.7
Private	66.6	61.8	64.0	63.2	67.3
Public	11.3	13.6	12.4	12.8	11.0
Coverage Across 2004-05*					
Insured All Year	71.3	68.6	70.1	69.6	71.6
Uninsured Part Year	12.3	11.8	12.4	12.2	12.3
Uninsured All Year	16.5	19.5	17.5	18.3	16.1
<b>Total</b>	N=57,222	N=3,560	N=6,345	N=9,905	N=47,317
Type of Coverage***					
None	18.9	21.0	19.3	19.9	18.7
Private	63.8	58.7	60.6	59.9	64.6
Public	17.2	20.3	20.1	20.2	16.7
Coverage Across 2004-05					
Insured All Year	74.4	72.3	74.7	73.8	74.5
Uninsured Part Year	12.3	12.0	11.8	11.9	12.4
Uninsured All Year	13.3	15.7	13.5	14.3	13.1

\*Differences significant at  $p \leq .05$

\*\*Differences significant at  $p \leq .01$

\*\*\*Differences significant at  $p \leq .001$

‡ Due to rounding some categories may not total 100 percent

**Table 10. Employer Offers Health Insurance by Employment Characteristics and Place of Residence, 2004-05**

<b>Characteristics</b>	<b>Total</b> N=14,028	<b>Rural, Non-Adjacent</b> N=759	<b>Rural, Adjacent</b> N=1,480	<b>Rural, Total</b> N=2,239	<b>Urban</b> N=11,789
Employer Offered Insurance***	<b>70.5</b>	<b>63.9</b>	<b>69.3</b>	<b>67.4</b>	<b>71.0</b>
Employment Status					
Full-time**	80.0	75.3	78.2	77.2	80.6
Part-time	28.3	20.0	26.5	23.9	29.1
Firm Size					
Less than 20 employees	51.9	47.6	54.0	51.5	52.0
20 or more employees	85.3	81.8	84.5	83.6	85.6
Employee's Wage					
Less than \$10 per hour**	41.3	43.5	49.0	47.0	39.7
\$10+ per hour	84.3	82.3	84.3	83.6	84.4

\*\*Differences significant at  $p \leq .01$

\*\*\*Differences significant at  $p \leq .001$

**Table 11. Health Care Utilization in 2004-05 by Place of Residence**

<b>Visit Type</b>	<b>Total</b>	<b>Rural, Non-Adjacent</b>	<b>Rural, Adjacent</b>	<b>Rural, Total</b>	<b>Urban</b>
Any Office Based (N=37,950)	69.5	71.7	69.9	70.6	69.2
Any Office Based, Physician (N=32,257)	64.2	63.6	63.4	63.5	64.4
Any Office Based, Other** (N=14,006)	28.9	35.9	31.2	32.8	28.2
Any Emergency Room*** (N=7,791)	13.1	15.0	15.7	15.5	12.6
Any Prescription Medication*** (N=31,943)	58.9	64.2	61.6	62.5	58.2

\*\*Differences significant at  $p \leq .01$

\*\*\*Differences significant at  $p \leq .001$



**Table 12. Health Care Utilization Among Individuals Uninsured Throughout 2004-05**

Visit Type	Total	Rural, Non-Adjacent	Rural, Adjacent	Rural, Total	Urban
Any Office Based*** (N=5,791)	13.0	16.1	14.6	15.1	12.6
Any Office Based, Physician*** (N=5,130)	12.3	15.1	14.0	14.4	11.9
Any Office Based, Other*** (N=1,896)	11.8	14.5	13.5	13.9	11.3
Any Emergency Room (N=1,486)	17.7	18.4	20.1	19.5	17.3
Any Prescription Medication*** (N=4,997)	13.3	16.5	14.8	15.4	12.9

\*\*\*Differences significant at  $p \leq .001$

**Table 13. Any Office-Based Visits in 2004-05 by Age and Place of Residence**

	Total N=38,420	Rural, Non-Adjacent N=2,512	Rural, Adjacent N=4,349	Rural, Total N=6,861	Urban N=31,559
<b>Age</b>					
0 to 17 Years	72.1	71.2	70.2	70.5	72.4
18 to 34 Years	59.5	62.1	57.7	59.2	59.6
35 to 64 Years*	75.1	77.5	77.5	77.5	74.6
<b>Total</b>	70.1	72.2	70.4	71.0	70.0

\*Differences significant at  $p \leq .05$

**Table 14. Any Office-Based Visits in 2004-05 for Uninsured Individuals by Age and Place of Residence**

	<b>Total</b> N=5,893	<b>Rural, Non-Adjacent</b> N=453	<b>Rural, Adjacent</b> N=731	<b>Rural, Total</b> N=1,184	<b>Urban</b> N=4,709
<b>Age</b>					
0 to 17 Years*	56.7	61.9	65.2	63.8	55.6
18 to 34 Years	40.0	44.3	43.5	43.7	39.2
35 to 64 Years***	52.3	60.9	58.8	59.7	50.7
<b>Total***</b>	47.9	55.4	52.8	53.7	46.7

\*Differences significant at  $p \leq .05$

\*\*\*Differences significant at  $p \leq .001$

**Table 15. Any Prescription Medication in 2004-05 by Age and Place of Residence**

	<b>Total</b> N=31,943	<b>Rural, Non-Adjacent</b> N=2,265	<b>Rural, Adjacent</b> N=3,812	<b>Rural, Total</b> N=6,077	<b>Urban</b> N=25,866
Children***	49.3	57.2	52.9	54.4	48.3
Adults*	62.8	67.0	65.1	65.8	62.3
<b>Total***</b>	58.9	64.2	61.6	62.5	58.2

\*Differences significant at  $p \leq .05$

\*\*\*Differences significant at  $p \leq .001$

**Table 16. Any Prescription Medication in 2004-05 for Uninsured Individuals by Age and Place of Residence**

	<b>Total</b> N=4,997	<b>Rural, Non-Adjacent</b> N=422	<b>Rural, Adjacent</b> N=655	<b>Rural, Total</b> N=1,077	<b>Urban</b> N=3,920
Children***	35.2	46.1	46.7	46.4	33.3
Adults***	42.6	51.3	47.1	48.6	41.4
<b>Total***</b>	41.4	50.5	47.0	48.3	40.0

\*Differences significant at  $p \leq .05$

\*\*\*Differences significant at  $p \leq .001$

**Table 17. Time Since Last Preventive Care Visit by Place of Residence, 2004-05**

Type of Preventive Care	Total	Rural, Non-Adjacent	Rural, Adjacent	Rural, Total	Urban
Cholesterol Check*** (N=35,305)					
Last Year	48.6	45.2	44.3	44.6	49.4
2-5 Years	22.4	18.2	20.8	19.9	22.9
More than 5 Years or Never	29.0	36.6	34.9	35.5	27.7
Physical Exam (N=30,108)					
Last Year	56.1	55.5	52.2	53.4	56.6
2-5 Years	27.4	22.8	25.8	24.7	28.0
More than 5 Years or Never	16.5	21.7	22.0	21.9	15.4
Prostate Exam* (N=8,114)					
In Last 2 Years	42.3	41.0	37.7	38.9	43.0
Not in Last 2 Years	57.7	59.0	62.3	61.1	57.0
Pap Smear*** (N=19,409)					
Last Year	61.6	55.1	58.0	56.9	62.5
2-5 Years	27.1	31.4	28.3	29.4	26.6
More than 5 Years or Never	11.3	13.7	13.5	13.6	10.9
Breast Exam** (N=19,456)					
Last Year	63.6	58.1	60.2	59.4	64.4
2-5 Years	25.2	29.0	26.8	27.6	24.7
More than 5 Years or Never	11.2	12.9	13.0	12.9	10.9
Mammogram (N=14,420)					
In Last 2 Years	59.3	55.5	57.4	56.7	59.8
Not in Last 2 Years	40.7	44.5	42.6	43.3	40.2

\*Differences significant at  $p \leq .05$

\*\*Differences significant at  $p \leq .01$

\*\*\*Differences significant at  $p \leq .001$

‡ Due to rounding some categories may not total 100 percent

**Table 18. Time Since Last Preventive Care Visit for Uninsured Individuals by Place of Residence, 2004-05**

Type of Preventive Care	Total	Rural, Non-Adjacent	Rural, Adjacent	Rural, Total	Urban
Cholesterol Check* (N=9,842)					
Last Year	28.5	27.2	26.5	26.8	28.8
2-5 Years	23.7	19.2	22.2	20.7	24.4
More than 5 Years or Never	47.8	53.6	51.2	52.1	46.9
Physical Exam (N=10,154)					
Last Year	36.5	36.0	35.0	35.4	36.7
2-5 Years	34.1	30.1	32.8	31.8	34.6
More than 5 Years or Never	29.4	33.8	32.2	32.8	28.7
Prostate Exam (N=1,794)					
In Last 2 Years	23.4	28.7	21.1	24.4	23.1
Not in Last 2 Years	76.6	71.3	78.9	75.6	76.8
Pap Smear (N=4,990)					
Last Year	46.1	43.9	43.1	43.4	46.8
2-5 Years	34.5	39.1	34.1	36.0	34.2
More than 5 Years or Never	19.3	17.0	22.8	20.3	19.1
Breast Exam (N=5,017)					
Last Year	46.2	41.7	44.1	43.2	46.8
2-5 Years	33.1	39.4	35.9	37.3	32.1
More than 5 Years or Never	20.8	18.9	20.0	19.6	21.0
Mammogram (N=3,300)					
In Last 2 Years	40.3	36.3	37.1	36.8	41.2
Not in Last 2 Years	59.7	63.7	62.9	63.2	58.8

\*Differences significant at  $p \leq .05$

‡ Due to rounding some categories may not total 100 percent

Established in 1992, the Maine Rural Health Research Center draws on the multidisciplinary faculty, research resources and capacity of the Institute for Health Policy within the Edmund S. Muskie School of Public Service, University of Southern Maine. Rural health is one of the primary areas of research and policy analysis within the Institute for Health Policy, and builds on the Institute's strong record of research, policy analysis, and policy development.

The mission of the Maine Rural Health Research Center is to inform health care policymaking and the delivery of rural health services through high quality, policy relevant research, policy analysis and technical assistance on rural health issues of regional and national significance. The Center is committed to enhancing policymaking and improving the delivery and financing of rural health services by effectively linking its research to the policy development process through appropriate dissemination strategies. The Center's portfolio of rural health services research addresses critical, policy relevant issues in health care access and financing, rural hospitals, primary care and behavioral health. The Center's core funding from the federal Office of Rural Health Policy is targeted to behavioral health.

Maine Rural Health Research Center  
Muskie School of Public Service  
University of Southern Maine  
PO Box 9300  
Portland, ME 04104-9300  
207-780-4430  
207-228-8138 (fax)  
<http://muskie.usm.maine.edu/ihp/ruralhealth/>