

# CHOICES



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## THEME OVERVIEW: IMPLICATIONS OF HEALTH CARE REFORM FOR FARMERS AND RURAL RESIDENTS

Mary Ahearn

**H**ealth care is critical to our quality of life and literally a life-and-death issue. Therefore, it is not surprising—and would even be worrisome if it were not the case—that reform has generated much interest among the public. Americans understand that this not just a political debate or a conceptual debate about values. This is a debate that could conclude with a set of reforms that may have an effect on where we live, how we choose to make our livelihood, our lifestyle and health promotion behaviors. There are many dimensions to a comprehensive reform, such as determining who among the 46.3 million who are currently uninsured will be insured, who pays for the increased coverage, and from whose pockets or what efficiencies will the cost savings come to pay for the newly insured. With our current health care system composed of a highly complicated set of private and public reimbursement rules, the devil is certainly in the details. But, the issue is much more than reform of health care insurance, it is about health care reform more generally. Health outcomes matter.

Some of the details of reform will have important implications for farmers and rural residents. Approximately, 17% of the U.S. population resides in nonmetro areas, which account for 75% of U.S. land area, and 5.5 million persons are a part of farm operator households. The implications of remoteness for the cost of delivering rural health care underlie many of the issues addressed in this Choices theme. In his brief note, Tim Parker provides the nonmetro per capita transfer payments compared to metro areas. Nonmetro payments have been rising faster than metro since 1978, and the majority of this increase is due to the rising cost of medical care. Articles in this theme highlight important implications of health care reform for the farmer and rural populations, such as extending health care insurance to the uninsured, physician retention/attraction, and access to hospital services in rural areas. The articles are grounded in the current state of health care, in some cases drawing lessons from current programs targeted to rural areas. In spite of conclusions rooted in analysis, the articles also leave the reader with a strong sense that any post-reform era in health care will hold a great deal of uncertainty for health outcomes for farmers and rural residents.

With the lion's share of the discussion on how to offer health insurance to the currently uninsured, much of the discussion of reform has been on insurance markets. Keith Mueller searches for lessons from current insurance programs and asks, what do potentially successful insurance markets look like for rural areas? Such a market must consider the distances of rural residents from urban medical centers, the higher costs of obtaining care in rural areas, and whether the extent of the rural market can support competing plans. Approaches to meeting the challenges discussed by Mueller include expanding the market to one large enough to encourage competition and a combination of regulation and subsidies to keep insurance plans affordable. Martin Shields focuses his article on the decline in employer-based health insurance over time, especially in rural areas, and the correlation between education and insurance type. Even with reforms that provide tax credits or other incentives to employers for providing insurance to workers, employer-based insurance is likely to continue its decline.

Two articles focus on insurance of the farmer population and health care reform to offer some insights. Farmers are more likely to purchase insurance directly from the individual insurance market. Also, there are examples of farmers purchasing insurance through cooperative organizations, a form of organization that offers a possible new alternative for obtaining insurance. In the first of two farmer-oriented articles, Mary Ahearn and Ashok Mishra consider the access of farmers to health care. Farmers are more likely to live in

areas that are identified by the Department of Health and Human Services as medically underserved areas, but on surveys they do not report that they are any more likely to go without care. Farmers are just as likely as the general public to be insured, although they are more likely to purchase the more expensive individual policies. There is evidence that insurance coverage is less for those with farming as a major occupation and that, in low-income years, farmers may drop their insurance coverage. Reka Sundaram-Stukel and Steve Deller draw lessons for reform from the Farmers' Health Cooperative of Wisconsin. The authors review the evidence on market outcomes from this particular health cooperative and find outcomes are generally positive, except that the cooperative model does not solve adverse selection problems. If some form of health cooperatives continues under future insurance reform, the government may need to serve as an arms length reinsurer for unforeseen high claims or a subsidizer of high risk claimants.

Besides slowing the rate of increase in health care costs, a motivation behind reform is to reduce health outcome disparities among populations. Hence, there has been a great deal of focus on how to increase health insurance coverage among the uninsured. But, Tracey Farrigan causes us to look beyond health insurance to the survey evidence that suggests that the relationship between poverty status and health status remains unchanged after controlling for health insurance, especially for children. Her analysis broadens the discussion to include the adoption of health promoting behaviors and the need to improve economic status to address children's health issues.

It is well-documented that health care providers make an important economic contribution to many rural economies, including providing local jobs and attracting and retaining residents. The ability of communities to attract physicians and other health providers has been a long-standing rural development challenge because of the economies of size in health care provision and the relatively more lucrative returns available in more densely populated areas. Two of the papers address the issue of how reform is likely to affect the attraction and retention of medical resources. Paul McNamara considers what impact reform will likely have on rural hospitals. He draws lessons for reform through the case of the 1997 Rural Hospital Flexibility Program that established Critical Access Hospitals. Under this program, hospitals with 25 or fewer beds—and other criteria relevant to rural areas—are allowed to receive cost-based reimbursement from Medicare and Medicaid. According to McNamara, expansion of health insurance coverage, a major focus of the current reform effort, is likely to improve the revenues of small rural hospitals, although the level of Medicaid reimbursement will be a critical determinant of their viability. James Barnes and Matt Fannin consider how possible future restrictions on physician ownership of medical facilities will affect the ability of rural areas to retain and recruit physicians. Ownership of health assets is sometimes used as a physician recruitment tool by rural communities and hospitals. Ownership restriction is on the table as part of a reform package because research suggests that when physicians own health care assets, patient Medicare costs are higher than if physicians have no ownership stake. Barnes and Fannin present evidence to suggest that this relationship may not hold in rural areas and may come at too high a cost in terms of physician recruitment.

Together, this set of articles addresses the challenges and concerns affecting farmers and rural citizens that must be given attention in designing and implementing health care reform. There are important lessons that, if incorporated, would likely lead to better health outcomes.

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## RURAL HEALTH INSURANCE AND COMPETITIVE MARKETS: NOT ALWAYS COMPATIBLE?

Keith J. Mueller

Since at least 1992, when the term “managed competition” was used as a buzz phrase in the presidential campaign, federal policy has been aimed toward fostering competition among health insurance plans. But, is there a viable health insurance market in rural areas? The past 20 years of federal policy debates have not answered this question. During 2002-2003 legislative discussions about creating a drug benefit in the Medicare program, for example, the same data were used to show the omnipresence of competing plans in the Federal Employees Health Benefits Program (FEHBP) and the absence of meaningful competition among those plans in remote rural areas. Among the health care reforms proposed in 2009 was the use of health insurance exchanges as agencies through which individuals and small groups can choose to purchase health insurance from among several competing plans. In the past year, members of Congress and the media have spoken about the promise of competition among plans as a means of making health care affordable. As federal policy makers debate how to extend affordable health insurance benefits through a reconstructed market, a new discussion—informed by lessons from previous experiences—of the implications of such changes for rural areas is warranted.

A foundation for understanding the presence or absence of health insurance alternatives is to understand the potential for competing health plans to attract sufficient enrollment to justify their investment into an area. Potential enrollment is a function of the ability of the population to purchase insurance based on the state of the rural economy and the numbers of persons who might enroll in plans based on how rural persons acquire insurance. Return on investment for health plans is also a function of costs, including contract negotiations with local health care providers. Assumptions about programs designed to promote active competition among health plans can be tested through the lessons of the FEHBP and the Medicare program.

### Economics of Rural Areas and Affordable Insurance

The economic downturn that began at the end of 2007 has been particularly troublesome in rural areas. Rates of poverty are higher in rural counties, including those that are persistent poverty counties as measured over at least 10 years of census data. In rural areas, 15% of people live in households with less than poverty-level income, compared with 12% of people in urban areas (DeNavas-Walt, Proctor, and Smith, 2008). Although unemployment has risen in rural areas at a pace comparable to that in urban areas, unemployment percentages in rural areas grew to 9.8% as early as February 2009, higher than the urban figure of 8.7%. Increases in unemployment are associated with increases in uninsured, indicating that rates of uninsured are reaching new peaks in all of the United States, but more so in rural areas. As of February 2009, unemployment had risen above 10% in the rural areas of at least 21 states (McBride and Kemper, 2009).

Rural economic circumstances contribute to the absence of an attractive market for health insurance plans and help explain recent increases in rural enrollment into public plans. In summary, insurers who need to aggregate populations for the purpose of creating insurance pools face challenges in rural areas because of higher percentages of unemployment, lower incomes among those who are employed, and sparsely populated areas, particularly when not adjacent to urban areas.

## **Insurance Status of Rural Residents**

While urban and rural rates of uninsurance are similar, in 2004, the rate among rural residents in counties not adjacent to urban areas was higher, 21% among adults between 18 and 65 years old, compared to 19% for urban areas; the rate peaked at 23% among people in counties with population totals less than 2,500 (Lenardson, et al. 2009). Data for the year 2007 show that among households in which farming was the primary occupation of the head of the household, 20% of the nonelderly were uninsured (Jones, et al. 2009). Expansions in public health insurance coverage (Medicaid and the Children's Health Insurance Program) helped close the coverage gap between urban and rural areas from 1997 through 2005 (Ziller and Coburn, 2009).

Rural residents may be insured, but the policies to which they have access are fundamentally different than those available in urban areas. For group plans purchased by employers, the cost is higher for rural businesses. Plans sold to small businesses in rural areas are more likely than those in urban areas to include deductibles (69.2% vs. 42.9%) and to have higher employee-only adjusted premiums (\$3,385 vs. \$3,178) (Gabel, et al. 2006). Partly because of those costs, private coverage has declined in rural areas over the past decade. As a result, rural workers in remote areas are less likely than urban workers to be employed in places offering health insurance coverage (64% vs. 71%) (Lenardson, et al., 2009). Many rural residents and the businesses employing them purchase health insurance through a local broker. A survey of farmers and ranchers in six states in the upper Midwest found that those buying through a broker spent \$5,204 more than the cost of insurance obtained through government programs and \$4,359 more than those obtaining insurance through off-farm employment (Pryor, et al. 2007). The net impact of the characteristics of the rural health insurance market for all rural residents is that they spend more of their own money out-of-pocket for health care than do urban residents, 40% vs. 33% (Ziller, Coburn, and Yousefian, 2006).

Insurance plans have historically coped with the special challenges of serving rural areas by designing policies with higher premiums and other out-of-pocket expenses including deductibles and co-payments. Sparsely populated and remote from any urban core areas, and places where employment is primarily through small businesses, can be challenging to health insurance firms. The insurer's financial risks related to the prevalence of chronic conditions and small numbers of persons help drive up the out-of-pocket expenses. In addition, working through local brokers can add to the administrative expense of selling and servicing insurance plans.

## **The Rural Health Care Delivery System**

In many rural areas, the concentration of clinical services into only a few hands contributes to higher-cost health insurance. Rural areas often have only one inpatient acute care hospital, likely to be small. Over 1,300 rural hospitals are certified Critical Access Hospitals, with fewer than 26 acute care beds). There may also be a single physician practice with fewer than six practicing primary care providers. Further, in much of rural America there are not enough providers to keep pace with any growth in demand. Focusing only on primary care, as of 2005 there were 55 physicians per 100,000 residents in rural areas and 72 per 100,000 residents in urban areas. In isolated small rural areas the number drops to 36 (Fordyce, et al. 2007).

While some rural areas have delivery *systems* such as Giesinger Health System in Pennsylvania, Marshfield Clinic and Gundersen Clinic in Wisconsin, and Kaiser Health in the Northwest, much more often, sole rural providers are not linked in any formal way with other rural providers or with urban-based systems. This rural characteristic requires that insurance plans that seek to build networks of providers must work one-by-one with rural providers for whom their plan may represent a small percentage of the total practice. Insurance plans would incur a high administrative overhead for a potentially small market in sparsely populated rural areas.

## **Lessons Learned from the Federal Employees Health Benefits Program**

Policy makers seeking to expand availability of affordable health insurance through market-based reforms can learn from the Federal Employees Health Benefits Program's (FEHBP) experience. The FEHBP offers federal employees a choice of competing health insurance plan options during each open enrollment period. Several national health plans participate in the FEHBP, often with several options within the plan. This wide availability and choice means that federal employees located anywhere in the United States can enroll in any one of a number of different plan options. In 2003, seven national plans offered 12 options, and six more

national plans offered to specific groups—for example, the Secret Service—were available to other federal employees for a fee. All FEHBP plan options are either health maintenance organizations (HMOs) or preferred provider organizations (PPOs). Therefore, all the plans have developed contractual arrangements with health care providers in networks that are then made available to enrollees. Enrollees who receive care outside of those networks have higher out-of-pocket costs.

The FEHBP impact on the health insurance options available to federal employees in rural areas can be measured in two ways. First, enrollment into plans is a signal as to which plans rural residents see as viable options. Enrollment data from 2001 show that six nationwide plans accounted for 87% of rural enrollment, while the same six plans accounted for only 67% of urban enrollment. One plan, Blue Cross/Blue Shield (BC/BS), accounted for 58% of rural enrollment. These six plans have a historical presence throughout America, with state-specific affiliates working through community-based brokers to enroll individuals and small groups as well as develop contracts with local providers. Among federal retirees in rural areas, 90% enrolled in nationwide plans. The number of plan options with enrollment differed considerably between urban and rural areas; 86% of urban counties had 10 or more active options with enrollment, compared to 30% of rural counties. Rural counties have a lower number of plans with active enrollment in part because a limited number of persons eligible for FEHBP enrollment reside in those counties; as of 2001, 35 counties had fewer than 10 enrollees. However, even in counties with much higher numbers of enrollees, enrollment is still concentrated in only a few plans (McBride, et al. 2003b).

Second, the inclusion of local primary care providers in FEHBP plan networks is an indicator of viability of the FEHBP model for establishing competition among insurers for rural enrollment. Although nationwide plans are available to any eligible person, many plans will not have contracts with local providers. If local providers are not included in the plan network, enrollees who want to take full advantage of low out-of-pocket payments would have to travel great distances to the nearest primary care provider who is in the network. For example, a 2003 study reported that in some communities the nearest primary care provider under contract with a plan would be more than 100 miles away. Only one nationwide plan, BC/BS, consistently contracted with local primary care providers in small rural communities (McBride, et al., 2003b).

Given the previous discussion of the characteristics of rural populations, including economic conditions, dispersed populations, and limited number of providers, the FEHBP findings are not surprising. In rural areas, a competitive marketplace among health insurance plans should not be expected.

### **Lessons Learned from Medicare+Choice**

The federal policy discussions in 1992-1993 of managed competition as a platform for systemic health reform were followed in 1995-1997 by a discussion of encouraging competition in the Medicare program as a means of reducing expenditures through efficiencies implemented by private plans. The final report of the Medicare Reform Commission, cochaired by Representative Newt Gingrich (R,GA) and Senator John Breaux (D,LA), supported expanding the use of managed care in the program. Subsequently, in 1997, Congress created the Medicare+Choice (M+C) program and increased monthly per beneficiary payments, including a minimum payment in rural areas, to entice managed care plans to enroll more beneficiaries. In 2003, the M+C program was replaced with the Medicare Advantage (MA) program, and the types of health plans that could contract with Medicare to provide all services to beneficiaries were expanded to include private fee-for-service (PFFS) plans and regional PPOs.

As with the FEHBP, greater plan competition in urban areas was also a characteristic of the M+C and MA programs. The M+C program was established with aspirations that Medicare managed care plans would offer viable alternatives in rural areas, supported in large part by a minimum payment floor from the Medicare program for each enrollee (per member per month or pmpm). In contrast to the FEHBP, expectations for competing plans were much more modest since no pre-existing national plans were marketed in all areas of the country. Instead M+C was based on a foundation created by the Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982, which allowed managed care plans to enroll Medicare beneficiaries county-by-county per the plan's chosen market areas. The result of this strategy was that as of August 2001 only 9% of rural counties had M+C plans operating within them, and only 2% had multiple M+C plans (McBride, et al. 2003a).

A report of availability of managed care plans in rural areas using data describing commercial plans in 1999 showed that access to competing plans was more limited than in urban areas. Among rural counties, 21% were served by one plan or no plan, compared to 3% similarly served in urban areas (McBride, et al. 2003a). As the population base of prospective enrollees widens from Medicare beneficiaries or federal employees to

the general population, the likelihood that there would be competing plans would potentially increase. For example, health plans will actively pursue national contracts with large national employers. Those plans would need to be available everywhere there are employees or retirees, even if the plans contract with local providers to pay full charges and they have only a limited number of persons to enroll.

### **Lessons from Medicare Advantage**

As noted, the MA program supplanted the M+C program in 2004 after enactment of the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (MMA). Payment to MA plans was increased to a minimum level in each of three geographic classifications—rural, small urban, and urban. The MA program also allowed for PFFS plans to be treated the same as HMOs and PPOs for payment but did not require them to form provider networks. As might be expected, PFFS plans became the prime vehicle for rural beneficiaries to enroll in MA plans, although the rural enrollment pattern shifted in 2009 from PFFS plans to network plans. However, that shift took place in the context of only 14.5% of rural beneficiaries being enrolled in MA plans as of September 2009, based on data from the RUPRI Center for Rural Health Policy Analysis web site: <http://www.unmc.edu/ruprihealth>. Rural enrollment has shifted from 51% in HMOs or Point of Service plans and 18% in PFFS plans in December 2005 to 55% in PFFS plans in June 2007, and to 13% in PFFS plans in July 2009, with PPO and other MA plans growing from 1% in 2005 to 17% in July 2009 (Kemper, McBride, and Mueller, 2009). The shift to PPO plans is due in part to a requirement from the Medicare Improvements for Patients and Providers Act of 2008 that PFFS plans develop provider networks by 2011. The national data disguise the fact that the percentage of rural beneficiaries enrolling in MA plans varies considerably by state. As of September 2009, in nine states rural enrollment exceeded 20%, and in 19 states it was less than 10%, based on data from the RUPRI Center for Rural Health Policy Analysis web site, <http://www.unmc.edu/ruprihealth>.

The MA program has been less troubled than commercial insurers by the challenges of insuring rural Americans. The option for PFFS plans to receive capitated payment from the Medicare program but not be required to establish networks overcame one of the market constraints that in rural areas there may be a concentration of provider access that makes contract negotiation challenging and costly. Payment from Medicare has exceeded historical costs of treating Medicare beneficiaries, making all areas of the United States attractive from the perspective of generating a return on investment. Some of these adjustments to the operational rural market are likely to diminish as the U.S. Congress looks for savings in the Medicare program, such as reducing floor payments. Meanwhile, modest rural enrollment in MA plans is one more indicator of the challenge of relying on market mechanisms to improve access to affordable coverage in rural areas.

### **Implications for Affordable Rural Health Insurance**

Can the rural health insurance market support competing health plans? In much of rural America the short answer is no. Especially in sparsely populated areas of rural America, multiple competing plans would not generate sufficient enrollment of paying clients to sustain the plans. Both the characteristics of the rural population and experiences from programs designed to encourage competing health plans demonstrate the special circumstances that create roadblocks to market competition. Creating affordable options for rural residents requires (1) that there be nonlocal methods for creating larger pools of potential enrollees, and/or (2) that regulation of health plans be combined with a subsidy program, making the limited number of viable plans affordable for rural residents.

One approach to establishing competitive rural markets is to create larger pools by broadening the market area far beyond the county boundaries that cluster into sparsely populated regions, such as frontier counties in western states. The MMA took this approach in establishing a moratorium on county-specific plans and creating single and multi-state regions. PPOs developed during the first three years of MMA implementation were required to offer the same plan, including benefits and premiums, everywhere in a given region. Very little enrollment into regional plans took place, perhaps because plans continued to emphasize increased enrollment in local areas where they already existed rather than expanding into new areas. Within the FEHBP, national plans have captured most of the rural enrollment.

The MMA and FEHBP experiences show the need for a policy that encourages competition among national plans for the rural market. Doing so will require at least these actions.

- First, national plans will need to abide by separate state insurance regulations, as the national plans in the FEHBP do now.
- Second, legislation should establish a rules-of-engagement policy to foster negotiations between insurance plans and local providers. The MMA included such a policy by setting Medicare payments as the floor in any negotiations and allowing the Secretary of Health and Human Services to pay essential hospitals if an MA plan certifies it was unable to reach an agreement. The plan must still pay the Medicare equivalent payment (Mueller, 2004).
- Third, rural residents must receive information about what is available to them from the national plans. A combination of insurance brokers, government agencies such as local health departments and area agencies on aging, and civic organizations can provide access to information through consultations with rural residents. A significant percentage of rural residents would find access to information through the Internet adequate to make their choices, but others would need guidance.

A second approach to meeting the challenges of the rural market is to regulate insurance plan offerings to ensure they are affordable to rural residents and to subsidize insurance companies to offset the costs of developing and maintaining insurance plans in sparsely populated, low-income rural areas. Two lessons from Medicare policy are relevant. First, a floor payment creates opportunities for health plans to enter counties with lower enrollment numbers and hence higher per person administrative costs because the payment per enrollee exceeds historic levels. Second, enrollment campaigns for Medicare Part D have enlisted help from multiple “partners,” including local civic organizations such as Knights of Columbus clubs and local churches. The regulations would need to include policies introduced in health reform legislation in 2009, for example, prohibiting use of pre-existing conditions in denying coverage in plan design, guaranteeing issue, guaranteeing renewability, and restricting rating practices. In exchange, insurance plans would need to be assured of as large a market pool as possible, most likely by mandating individual purchase of insurance, either as an individual or through a group.

In conclusion, competition and the rural health insurance market need not be incompatible. Rather, a market in all of rural America would need to be one of managed competition, with a role for government in setting regulatory policy and guaranteeing affordability for the purchaser and profitability for the health plan.

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## WHAT EXPLAINS THE GROWING METRO/NONMETRO GAP IN EMPLOYMENT BASED HEALTH INSURANCE?

Martin Shields

Individual health insurance is one of the vital issues underlying the ongoing health care debate. According to the U.S. Census Bureau more than 46.34 million people in the United States were uninsured in 2008. And the uninsured rate is growing, standing at 15.4% in 2008, up from 13.7% in 2000.

Contrary to some perceptions, the percentage of uninsured people living outside of metropolitan statistical areas (MSAs) is actually slightly smaller than it is within MSAs. Census data indicate 15.2% of U.S. residents living outside of MSAs were without health insurance in 2008 while 15.4% within MSAs were uninsured.

If one looks simply at metro-nonmetro uninsured rates, this suggests that there may be no real “rural” dimension of the health insurance issue. After all, people outside of MSAs are actually somewhat more likely to have health insurance. But these aggregate statistics mask important demographic differences between MSAs and outlying regions that turn out to have very important implications in terms of insurance coverage. Specifically, the fact that rural residents are older on average than their metro counterparts means that the “type” of health insurance becomes a central concept. In particular, there is a clear distinction between public and private insurance types.

Medicare is the most influential public insurance program, with Medicaid and Children’s Health Insurance Program (CHIP) being the other important public programs. In practice, nearly all retirees 65 and older are eligible for Medicare. As a consequence, more than 98% of all people 65 years or older have some type of health insurance coverage. Returning to the fact that the proportion of the population 65+ years of age outside of MSAs is higher than within MSAs, a closer look at private insurance—for example, employer based and self-insurance—is necessary to determine any potential spatial differences in health insurance rates.

When excluding the population 65+ years of age, important differences in metro/nonmetro health insurance rates emerge. According to the 2007 U.S. Department of Health and Human Services Medical Expenditure Panel Survey (MEPS), 69.9% of MSA residents less than 65 years of age had some type of private insurance the year before, whereas the rate was 65.5% for nonmetro residents.

In fact, the proportion of people with employer based coverage is declining over time in both metro and nonmetro areas and employer based health insurance is less common outside of metropolitan areas. As health care policies are being reformed, it is important to understand the link between the lower insurance rates for employer based insurance outside metro areas and the economies of metro and rural areas.

Although a number of important factors are at play, there are two primary reasons. First, the costs of providing health insurance at the firm level are subject to increasing returns to scale, and metro employers tend to be larger on average than their nonmetro counterparts. Second, the likelihood an individual has employer sponsored health insurance increases with education, and metro employers tend to be more human capital intensive than nonmetro ones.

These facts have important policy implications as they suggest employment based health insurance is never going to provide anywhere near universal coverage in the current environment, even more so in rural areas. Indeed, as health cost increases continue to outpace inflation, employer supported health insurance plans are likely to become increasingly scarce, especially in lower-skilled jobs. Consequently, significant policy reform, such as through insurance exchanges, is essential if a substantial increase in health insurance coverage is desired.

### **The Rise and Decline of Employer-Sponsored Health Insurance**

In the United States, employer based health insurance is far and away the primary means by which working age people pay for their health care. This system has auspicious origins. In the early years of World War II, businesses offered health insurance to recruit workers whose wages were capped by the federal government. After the war, the model's reach expanded, as employers recognized the benefits of a healthy workforce far outweighed the costs of providing health insurance.

For decades following its inception, the employer-sponsored model worked quite well. A large majority of businesses provided health insurance and most workers were covered. Over the past 20 years, however, medical costs have soared. Research has led to great improvements in technology and medical procedures, allowing people to live longer, healthier lives. This effect has been compounded by dramatic innovations in drug research. Yet all of this progress has come at tremendous financial cost. In the United States, these costs are borne largely in the "third-payer" insurance market.

The effects of rapidly escalating insurance costs resonate across the economy. Several recent surveys show that many employers are more concerned about rising health insurance costs than they are about wage increases. Meanwhile, the declining influence of labor unions has weakened the bargaining position of many workers, and union workers are much more likely to be insured than nonunion workers.

Employers are implementing various measures to deal with higher insurance premiums, including: increasing deductibles, co-pays and employee contributions; and decreasing coverage. More dramatic steps involve eliminating dependent coverage, or, in some cases, completely eliminating health insurance benefits. The upshot is that many workers are paying more for their health insurance, taking home less pay, or even losing their coverage completely.

How substantial is this trend? According to MEPS data, about 74.3% of U.S. residents between the ages of 25 and 64 were covered by private health insurance in 2006. In 2000, the rate was 79.2%. These temporal differences carry over when comparing metro and nonmetro areas. In 2006, the private insurance rates for metro and nonmetro residents 25-64 years old stood at 74.8% and 71.3%, respectively. This is notably lower than 2000, when 79.6% of the metro population between the ages of 25 and 64 had employment based insurance, while 76.9% on their nonmetro compatriots did.

### **Metro/Nonmetro Firm Size and Health Insurance Coverage**

The provision of employment based insurance makes sense economically. In the United States, health insurance benefits, unlike wages, are generally not taxed on either the employer or the worker side. Not surprisingly, both parties often prefer health insurance to equivalent wage compensation.

Employees see benefits beyond lower tax bills. Because of risk sharing, an individual's out-of-pocket insurance costs are typically lower with employer-sponsored plans than they would be if they had to pay for comparable coverage themselves. The cost advantages arise because the risk of any individual becoming very sick is spread out over a comparatively large number of coworkers.

One important consequence of risk sharing is that as employer size increases, average costs per worker tend to decrease. Because per employee insurance costs are lower for larger firms, it is reasonable to expect that larger firms will more likely insure their workers than smaller ones, all else equal.

The evidence seems to bear this out. MEPS data show that larger firms are much more likely to provide health insurance than smaller ones. For example, nearly 97% of all firms with more than 50 employees offered some type of health insurance benefits in 2008. By comparison only 43.2% of firms with fewer than

50 workers did. Table 1 shows that the likelihood of insurance increases as firm size increases. Only 35.6% of firms with fewer than 10 employees offered health insurance in 2008, while 99% of the largest firms with 1000 or more employees did.

**Table 1: Percentage of Firms Offering Health Insurance Increases with Firm Size, 2008**

<u>Firm Size</u>	<u>Percent Offering Health Insurance</u>
Total	56.40%
Less than 10 employees	35.60%
10 - 24 employees	66.10%
25 - 99 employees	81.30%
100-999 employees	95.40%
1000 or more employees	98.90%
Less than 50 employees	43.20%
50 or more employees	96.50%

Source: U.S. Dept. of Health and Human Services, Medical Expenditure Panel Survey

Because nonmetro firms are smaller on average than metro firms, differences in metro/nonmetro firm size might explain differences in employer-sponsored coverage. According to 2006 County Business Patterns data, about 19% of employment in nonmetropolitan areas was concentrated in establishments with 20 or fewer workers. By comparison, about 17.5% of metropolitan workers were employed by such establishments. Establishments with fewer than 10 workers, which are least likely to offer health insurance benefits, provide 11.4% of all jobs outside of MSAs, a full percentage point higher than the same size establishment share of total metropolitan employment.

#### **Metro/Nonmetro Education Differences and Health Insurance Gap**

While relatively larger employers in metro areas may explain some of the difference in employment-based insurance coverage between metro and nonmetro areas, the fact is that firm size distributions are not all that dissimilar between the two regions, suggesting other factors are likely at work. One competing explanation is metro/nonmetro differences in human capital. Skill differences, as indicated by a job's educational requirements, are the main reason metro workers are more likely to have employment based insurance than nonmetro workers.

Education's central role in individual well-being is beyond debate. There is overwhelming evidence that people with a two-year or four-year college degree are much more likely to have higher incomes, and much less likely to be unemployed or live in poverty, and that these differences have grown over time. Further, U.S. Census data also reveal that the college-educated are much more likely to have employer sponsored health insurance than those without a post-secondary degree.

According to the Current Population Survey, 82% of U.S. residents between the ages of 25 and 64 with at least a bachelor's degree had employer based health insurance in 2008, whereas the rate was just 59.7% for those with only a high school degree or its equivalent . Only 31.1% of U.S. residents between the ages of 25 and 64 without a high school degree had employer-based insurance last year.

Data from the 2006-08 American Community Survey shows a wide discrepancy in educational attainment between residents in MSAs and in areas outside of MSAs. Specifically, 29% of MSA residents over the age of 25 have at least a bachelor's degree, while the rate is 17% outside of MSAs. Conversely, 56% of non MSA residents have at most a high school degree or its equivalent, while the MSA rate is 45%.

Combining the strong correlation between education and employment based health insurance with lower average educational attainments outside of MSAs, there is evidence to assert that metro/nonmetro discrepancies in health insurance coverage are largely explained by differences in educational attainment. Just as the metro/nonmetro income gap arises mainly because of education differences, so too does the employment-based insurance “gap.”

Given the strong correlation between wages and health insurance coverage, this is not a profound discovery, but it does have profound policy implications. Namely, as high level human capital increasingly concentrates in the nation’s metropolitan areas, it is likely that the gap in metro/nonmetro employment based health insurance rates will increase.

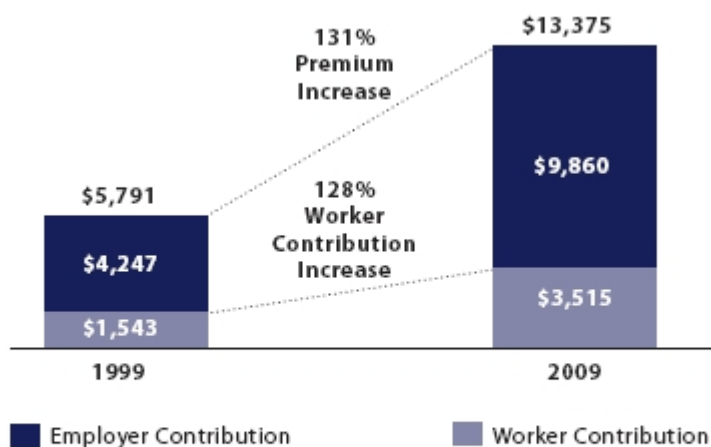
### Employment Based Insurance and Rural Economic Development

While debate on government’s role in health insurance provision has been raging for decades, the significant downturn in the U.S. economy over the past 14 months has allowed the issue to take on even greater prominence. With more than 10% of the labor force without a job, the historical ties between work and insurance are under intensified scrutiny. After the dust settles, the role of employer based insurance could be greatly different than it is today.

Tax credits for small businesses are one option forwarded by President Obama that would enhance the availability of employment based insurance. Details may be found at the U.S. Dept. of Health and Human Services (U.S. Dept. of Health and Human Services, 2009) website. The size of this credit will likely determine whether or not employers take advantage of it. A recent small business survey in rural Pennsylvania found that employer cost was overwhelmingly the most important reason health insurance was not offered, cited by 87% of nonoffering respondents (Shields, Mushinski, and Davis, forthcoming).

And the costs keep going up. According to the Employer Health Benefit Survey (Kaiser Foundation, 2009), the average annual health insurance premium and worker contribution for family coverage was \$13,375 in 2009, up 131% from 10 years earlier. On average, employers paid \$9,860 of this. As a reference point, a recent study by ERS found nonmetro wages and salaries averaged about \$31,300 in 2006 (Kusmin, Gibbs, and Parker, 2008).

**Figure 1.**



Note: The average worker contribution and the average employer contribution may not add to the average total premium due to rounding.

Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 1999–2009.

### Average Annual Health Insurance Premiums and Worker Contributions for Family Coverage, 1999-2009

Given that lower wage workers are less likely to have health insurance, it is not difficult to imagine new mandatory health insurance benefits driving up compensation costs 50% or more for employees currently not offered health insurance. One likely consequence would be continued stagnation of wages, especially for low income workers, with rising insurance premiums being the alternative form of any real increases in compensation. An important rural economic development consequence would be a diminished competitive position for businesses competing in global markets.

When all is said and done, however, tax credits will likely have limited impacts in reversing the decline in employer based insurance coverage. In fact, the harsh reality is that incremental changes will never provide employer-based health insurance for all workers. It's just too expensive.

These facts point to a grim future for employment based insurance, especially in rural areas. Costs are increasingly rapidly, resulting in an increase in the numbers of uninsured. A staggering 46.34 million U.S. residents were without health insurance last year. And of those workers who do participate in employment based programs, a higher education degree is increasingly important in determining who gets covered.

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## ACCESS OF FARM HOUSEHOLDS TO HEALTH CARE

Mary Ahearn and Ashok Mishra

**A**ccess to health care involves adequate availability of medical professionals and related services and the ability to afford those services, through health insurance plans and/or to cover out-of-pocket expenses. Measuring adequacy of care available and the ability of the farm population to pay for care for the 5.5 million persons in family farm households is confounded by a variety of factors that point to the uniquenesses and differences among farm families, as well as the limitations of current data systems. Regarding the adequacy of care, health status of farm people, riskiness of the farming environment, and the physical distances to health professional services and facilities all come into play. Besides household income, the ability to pay for care is largely influenced by access to reasonably priced insurance plans, such as employer-sponsored plans. Health care reform promises to directly address the issue of access to affordable health insurance coverage that here-to-fore has not been widely available to self-employed individuals and their households. However, it is much less clear how health care reform will affect the location of health professionals and facilities in rural areas where farm households are more likely to reside.

### Incomplete Farmer Health Status Data

Unlike for the general population or the rural population, objective and comprehensive information on the mortality and health status of the relatively small farm population is not available. Therefore, there is no simple summary conclusion to draw about the health status of the farm population, as is possible when discussing health status of the rural population. Partial information on health outcomes of farmers is available from small area epidemiological studies that are not representative of all farmers (e.g., cancer effects of alternative pesticides on high-risk farmer groups). Nationally comprehensive, yet partial, indications of the health status and mortality of farmers are available through occupational fatalities data and self-reported health status of farm operators whose principal occupation is farming—less than half of all principal farm operators. Information is also available on factors that contribute to health outcomes of farm operators with a major occupation of farming, such as personal behavior (e.g., smoking and diet).

But, it is clear that farming has had and continues to have more fatal on-the-job injuries than most other occupations. While the overall occupational fatality rate of workers in the United States in 2008 was 3.6 per 100,000 workers, the rate for those with farming or ranching as a major occupation was more than ten times higher—39.5 per 100,000 (U.S. Department of Labor, 2009). Furthermore, whereas fatal injuries per 100,000 workers generally declined for all U.S. workers from 1992 to 2008, the fatality rate for farmers and ranchers almost doubled during this same period. Leading causes of farm fatalities from workplace injuries and accidents are transportation incidents including tractor rollovers, contact with objects or equipment, and assaults including animal attacks. More than 100 farmers in the United States die annually from tractor overturns. Contributing to the risks are the long hours worked during planting and harvesting periods by farmers, their family members, and hired workers. The fatal injury rate for those in crop production has averaged more than twice that for those in animal production. While these national data are for farm operators, we also know that they have implications for others who live on U.S. farms since farming is one of the few industries in which the families—who often share the work and live on the premises—are also at risk for injuries, illness, and death. In the Keokuk County, Iowa Health Study, youth reported the average age for driving tractors of 11, for driving self-propelled combines of age 13, and for applying or handling fertilizer of age 12. This occurs, despite the legal prohibition of hazardous work for children under the age of 16 (Park, et

al. 2003).

In contrast to higher farmer fatality rates, a recent ERS report found generally favorable health-related personal behaviors and disease incidence self-reported by individuals with farming as their major occupation in a national survey. In particular, the incidence of farmer smoking was significantly less than that of other workers (Jones, et al. 2009). The incidence of cancer, asthma, and emphysema are often the focus of epidemiological studies of small farmer groups because some farming practices, such as the use of farm chemicals, are often hypothesized to result in negative health outcomes. And, yet, this study reported that relative to nonfarm workers, farmers reported significantly lower—not higher—incidence rates of asthma and emphysema and no difference in the incidence of cancer. Seemingly confounding results are reported elsewhere in the literature for asthma. For example, a small Iowa population study found farm children were less likely to have asthma than other children in the county, unless they were living on farms that raised hogs and added antibiotics to feed (Merchant, et al. 2005). On the other hand, a study of dairy farmers in New York showed that farmers have an elevated risk for asthma (Jenkins, et al. 2005). The Iowa study also found that men had lower rates of asthma than women, even though the men were more likely to be farming and have greater exposure to hazardous conditions, such as grain dust and agricultural chemicals (Merchant, et al. 2002).

In a national sample, farmers reported significantly lower incidence rates of cardiovascular diseases than nonfarmers, perhaps as a result of their physically active lifestyle (Jones, et al. 2009). This is consistent with a study of New York dairy farmers for 1999 which found that farming had a protective effect for hypertension and other cardiac conditions (Jenkins, et al. 2005).

The need for health care and health status can be mediated by higher socioeconomic status. Farm operator households are more likely to be of higher socioeconomic status than all nonmetro households: a larger share has household heads that graduated from college and median household income and wealth are higher. But the need for care also generally increases with age and farm persons have an older age profile than the general U.S. population. In short, what partial information is available on the health status—and, hence, health care needs—of the farm population simply does not lend itself to a clear conclusion about how the farm population compares to the general U.S. population.

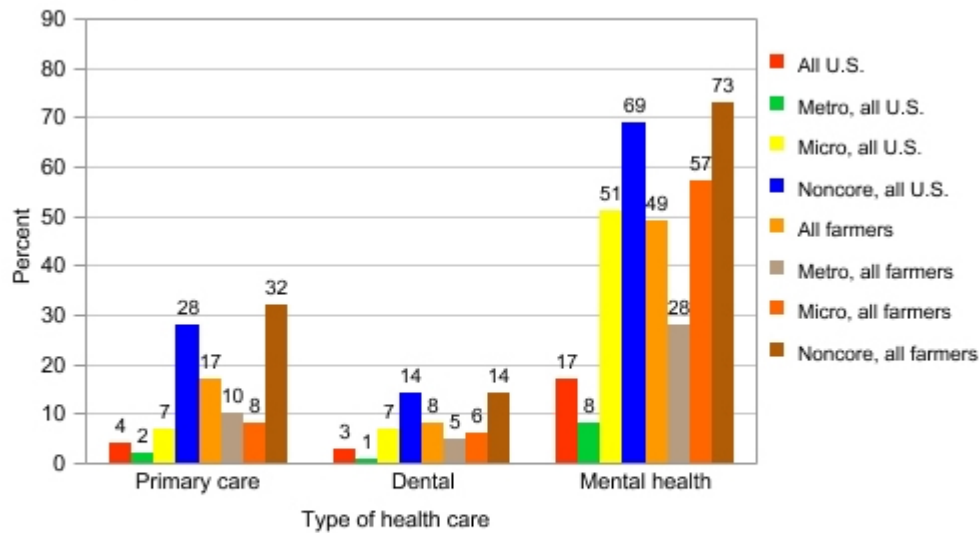
### **Farm People Travel Greater Distances to Health Care**

Convenient access to health care is more likely to be a challenge for persons residing in sparsely populated areas, whether farm or nonfarm, as a result of the greater distances to doctors' offices and major medical facilities. The geographical distribution of the households of farm principal operators is quite different from that of all U.S. households, which are predominantly located in metro counties (83%), with one-third in principal cities of metro counties. In contrast, farm operator households are predominantly (60%) located in rural areas, and among rural households, farm households are more likely to be in the lower density, more remote rural areas. Farm households located in metro areas are concentrated in smaller metro areas while nonfarm households are more likely to be in large metro areas.

Compared to the general U.S. population, farm operator households generally have to travel greater distances to receive health care, especially specialized care. Based on the Department of Health and Human Services' Health Professional Shortage Areas, as shown in Figure 1, 17% of the farm population resides in shortage areas for primary care access, compared to less than 4% of the U.S. population (Jones, et al. 2009). Farmers are more likely to reside in shortage areas for dental and mental health care, too, than the general population. Nearly half of all farmers reside in areas designated as mental health shortage areas.



**Figure 1. Share of Households in Counties Designated Health Professional Shortage Areas, for All U.S. and Farm Households, 2004**



*Note: Metro areas are central counties with one or more urbanized areas and outlying counties that are economically tied to the central counties by work commuting. Micro areas are outside metro areas centered on urban clusters with at least 10,000 but no more than 50,000 persons. Noncore areas are areas not considered metro or micro. Source: Jones, et al. (2009), "Health Status and Health Care Access of Farm and Rural Populations," EIB-57, U.S. Dept. of Agri., Econ. Res. Serv.*

### Health Insurance Coverage and Health Expenses of Farm People

There are 2.1 million farms in the United States. Most of these farms, 97%, are classified as family farms operated by a self-employed farmer. Obtaining health insurance coverage can be a challenge for self-employed persons, farm or nonfarm, since the major source of health insurance in the United States remains employer-sponsored insurance. In 2008, 75% of insured persons under 65 years of age in 2008 were enrolled in employer-sponsored insurance programs (Denavas-Walt, Proctor, and Smith, 2009). Government insurance plans are available to those 65 or older and those with specialized needs, such as the disabled or those with very low income. Otherwise, those without access to employer-sponsored insurance plans must rely on individual health insurance plans. The terms and expense of health insurance plans vary widely, but generally individual plans have higher premiums and greater out-of-pocket expenses due to greater exclusions, deductibles, and co-pays.

Data on health insurance coverage of the U.S. population has been available for decades. However, because of their small numbers, data on persons in farm operator households have only been available since 2006 on USDA's Agricultural Resource Management Survey. For the most current year available, 2008, 15.4% of the U.S. population had no form of health insurance; for members of farm operator households, the comparable figure was 17.7% (U.S. Department of Agriculture, 2009). But in the prior two years, persons on farm households were more likely than the general public to have health insurance. The higher rate of decline in insurance coverage for farm persons from 2007-08, compared to the U.S. population, points to their greater vulnerability to being uninsured. In some cases, farm households lost employer-sponsored health insurance along with off-farm job opportunities, and in other cases, farm households were less able to purchase the more expensive individual plans directly from an insurance company as their household incomes declined.

Although farm operators are largely self-employed, the majority of farm households have an operator or spouse employed off the farm. Consequently, as with the general population, the most common source of health insurance for members of farm households is employment-based. In fact, farmers are almost as likely as the general U.S. population to receive their health insurance through an outside employer. Farmers are more likely than the general population to directly purchase their health insurance from an insurance company, and less likely to receive health insurance from a government-sponsored program, such as

Medicare or Medicaid.

In 2008, about half of farm household members had health insurance coverage from an employment-based plan. For households where both the principal operator and spouse worked off-farm, nearly three-quarters of household members were covered by employment-based plans. In households where neither the principal operator nor the spouse worked at an off-farm job or business, only 18.6% of household members were covered by employment-based plans. Members in these households had significantly more coverage under private-direct purchase plans and government-provided plans, such as Medicare. The reliance on government plans for those who do not work off the farm is consistent with the higher share of these operators who reported being 65 years old or more.

One major reason that a farmer or rancher would work solely on the farm and not have access to employer-sponsored insurance through an off-farm job is the intensive time commitment for some commodity specializations. An obvious example of this is in dairy production. Farming is the major occupation for 95% of those that specialize in dairy production—significantly more than the 43% across specialties. Compared to the 60% of all farm persons who receive insurance from employer-sponsored plans, only 30% of persons in dairy households do. In 2008, 47.5% of persons in dairy households did not have any health insurance coverage. In 2007, the comparable share was 34.7%. This increase is reflective of the deteriorating financial conditions for dairy producers from 2007 to 2008 when average dairy family farm income from farming declined by 6.2%, with further declines expected for 2009.

Having health insurance and the source of health insurance are major determinants of the household expenses for health care. More than 10% of farm households had only direct-purchase insurance in 2008, the most expensive type of plan on average. These farm households had the highest health expenses of all farm households, nearly \$8,000 per household and accounting for one-fifth of their total household cash expenses in 2008.

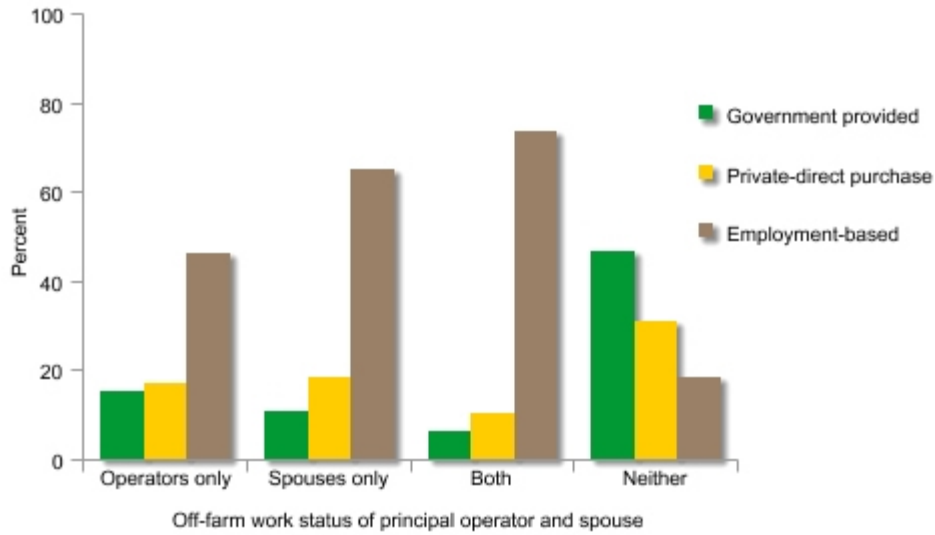
### **Implications of Reform**

Although comprehensive information does not exist on health status of farm persons, that is not the case for information on their access to health care. As often self-employed and residents of remote rural areas, most farmers currently face a double challenge in obtaining access to care. We can say with relative certainty that farm operator households have less access to care as measured, first, by availability of local medical resources. Secondly, they have less access due to their higher health care expenditures for insurance premiums and out-of-pocket expenses, although they also have greater average incomes.

Current versions of the health care reform bills that extend insurance coverage to individuals that are not currently offered group plans through employers could increase access of farm households to insurance coverage. In addition, given the known risks of their farm occupation, farmers who currently face obstacles in obtaining coverage as insurance companies seek to minimize their exposure to enrollees in high-risk occupations are likely to have those obstacles removed. Although specific plan benefits are not clearly defined under the reform bills, plans available through an insurance exchange could include plans that offer co-pays and deductibles that are much lower than those currently offered by the current individual plans.

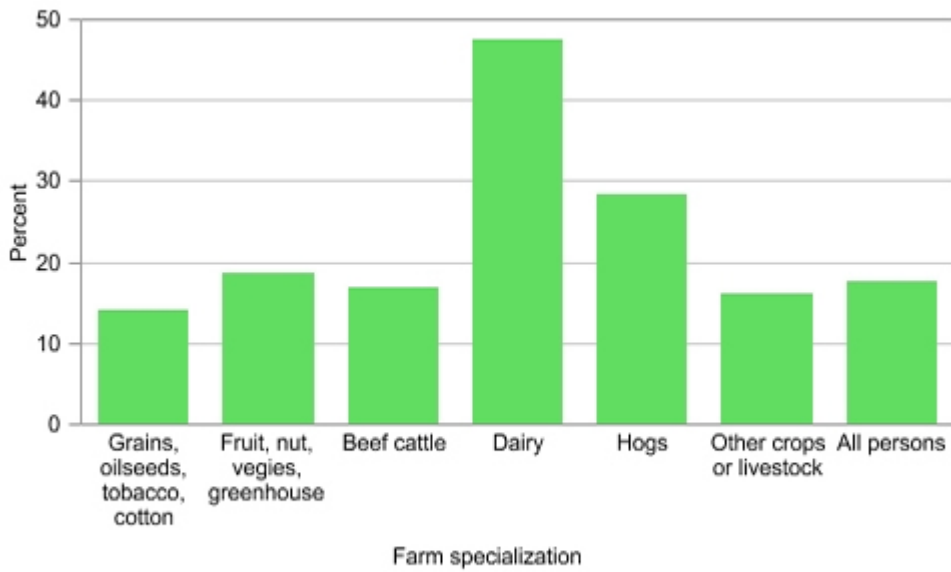
Due to low population densities and small patient volumes in rural areas, geographical access to care—particularly for farm households living in smaller and more remote counties—will likely continue to be a challenge after the next round of health care reform. Rural areas are already experiencing less access to physicians, for both primary care and specialists. Provisions that provide incentives for medical personnel to locate in underserved areas, for example, medical school loan forgiveness programs, will aid in improving access to care. However, there is a great deal of uncertainty about how providers and insurance companies will adjust to the incentives provided by changes incorporated in new legislation. Of special concern will be adjustments that come in the form of movement of health care resources away from rural areas as discussed in other articles in this issue, if providers recognize greater incentives to locate in metro areas.

**Figure 2. Type of Health Insurance by Off-Farm Work Status of Operators and Spouses, 2008**



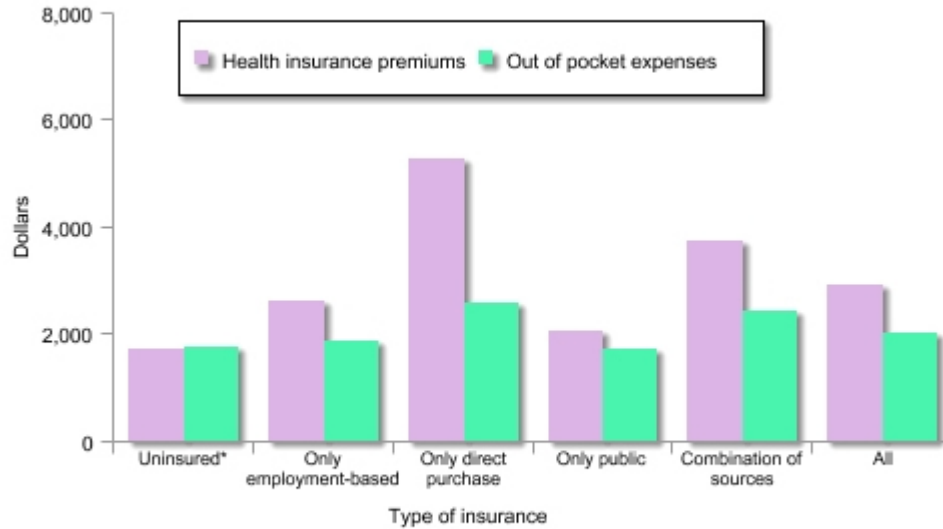
Source: Agricultural Resource Management Survey, ERS and NASS, USDA.

**Figure 3. Share of Farm Persons Uninsured by Commodity Specialization, 2008**



Source: Agricultural Resource Management Survey, ERS and NASS, USDA.

**Figure 4. Average Farm Household Health Insurance and Out-Of-Pocket Expenses, by Source Of Insurance, 2008**



Source: Agricultural Resource Management Survey, ERS and NASS, USDA. \*Respondent reported all persons in household were uninsured, but household incurred insurance expenses, perhaps for individuals outside of the household or for Medicare hospital insurance taxes.

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## FARMER HEALTH INSURANCE COOPERATIVES: AN INNOVATIVE SOLUTION FOR OTHER AMERICANS?

Reka Sundaram-Stukel and Steven Deller.

The national debate on health care reform focuses on making the private insurance market more socially efficient by reducing the number of uninsured. At the time of this writing, it is uncertain what national health insurance reform may be enacted—be it implementing a public plan option provided by a National Health Insurance Exchange, expanding Medicare and Medicaid to cover larger segments of the population, or mandating health insurance. Thrown into this mix of options is the cooperative provision of health insurance. To inform this discussion, we review the previous problems Wisconsin dairy farmers had in accessing affordable health care—leading to the formation of the Farmers' Health Cooperative of Wisconsin (FHCW).

While many farmers operating in remote rural areas may have limited access to health care practitioners, a more fundamental problem is access to affordable health insurance. Although today's farmers do not fall into the conventional categories of disadvantaged groups, the occupational hazards of farming make them an at-risk group that drives health insurance premiums to levels that exceed their willingness and ability to pay. Because farmers traditionally enter the health insurance market as individual purchasers and not part of larger pools, their burden of health care costs is substantially higher. Even if they make informed choices, farmers may face higher premiums and lower coverage than other individuals with comparable health characteristics.

In Wisconsin and many other states, the rich tradition of agricultural cooperatives provides a significant potential for health care delivery. Instead of transacting as high-risk individuals for health insurance, farmers can increase their bargaining power by forming a health insurance cooperative to purchase affordable group health insurance. The impetus behind the formation of Farmers' Health Cooperative of Wisconsin (FHCW) is simply that collective bargaining increases purchasing power—farmers can get health care coverage for a better value than buying it on their own. By pooling farmer interests and using the existing regulatory environment to form cooperatives we describe how farmers were able to improve upon their existing market choices of health care coverage. But, can lessons be learned from this experience about the viability of the cooperative option for other underserved segments of the population?

### The Farmers Insurance Problem

With incomes and assets well above the U.S. household average, farmers do not typically belong to an economically vulnerable group and health insurance coverage is higher among farm households compared to other U.S. households (Jones, et. al., 2009). Still, as with any small business enterprise, health care costs remain a serious challenge because as a group farmers do not have adequate coverage. For instance, even though 95 % of all surveyed farm households studied in seven Mid-western states had health insurance, 23% reported financial hardship—resulting from health care expenditures exceeding 10% of monthly income (Pryor, et. al., 2008). In Wisconsin, a study of dairy farmers found that one in five farmers were uninsured. The same study also reported out-of-pocket health care expenses as a predominant cause for exiting farming. Dairy farmers with insurance reported that farm-related injuries and other chronic conditions were often not covered by the insurance they held at the time (Wisconsin Family Farm Facts, 2002 and Todd, 2007). This is because many farmers with health insurance have only major medical and catastrophic

coverage.

Like most small business owners, farmers have three choices in purchasing health insurance: they can buy insurance in the small group market, in individual insurance markets, or through off-farm employment. Each alternative poses problems. The small group insurance market is highly regulated in the United States. For instance, in Wisconsin, rating restrictions prevent premium variations greater than 30% from the midpoint for policies issued by the insurer to the typical person in the pool. Wisconsin regulations also require insurers to provide coverage for pre-existing conditions, although it can be priced differently (OCI, 2009).

Typically farmers are priced at the high end of the rate band due to their de facto risk characterization. In this environment younger farm employees typically choose not to enroll in insurance plans with the farmer and buy insurance elsewhere or not at all. This means farmer-employers lose bargaining power because they have a pool comprised only of family members and older employees. Thus they are presented with the difficult choice of risking health and forgoing insurance for some or all family members, or purchasing insurance with extremely high deductibles and limited coverage. Furthermore, family farms without employees have to compete in the more expensive individual insurance market.

A vast majority of farmers buy health insurance in the individual market, if they buy at all. The choices available in terms of prices or coverage are very limited. Unlike small group markets, health insurance options within individual market are subject to fewer regulations. Insurance contracts are underwritten per risk factor and are customized to each farmer's risk attributes. Farmers can also be denied coverage, have pre-existing conditions clauses, and face unreasonably high deductibles and/or co-pay requirements. Again, sick and older farmers are more likely to bear the brunt of high health care costs. The 2002 edition of Wisconsin Family Farm Facts reported that over half of Wisconsin dairy farmers 55 or older were underinsured.

The last option available and used by the vast majority of farmers who have health insurance is coverage through off-farm employment, often through a member of the farm family (Wisconsin Family Farm Facts, 2002 and Pryor, et. al., 2008). The difficulty for many farmers, however, is access to those off-farm jobs. For many rural communities, employment opportunities, particularly opportunities that provide adequate health insurance benefits, are hard to come by. Losing family members to off-farm employment for health insurance purposes also means depletion of skilled labor for farm operations. Even though the initial intent for seeking off-farm labor is to keep the family farm intact, the loss of labor can have the effect of weakening the commitment to keep the farm and increasing the likelihood of closing family farms.

The 2002 study of Wisconsin dairy farmers showed that even when farmers had access to health insurance, 58% reported carrying only major medical policies with \$500 deductibles (Wisconsin Family Farm Facts, 2002). Only one out of every four fully insured farmers reported having any preventive care. This means farmers either neglected getting routine care—increasing the likelihood of future major medical expenses—or paid for preventive care out of pocket. Furthermore, because many farm-related injuries are not covered by insurance, farmers have to absorb both the cost of medical bills due to the injury as well as lost income. Most farm workers do not qualify for worker compensation.

### **The Cooperative Organizational Form**

A health insurance cooperative differs from other organizational forms in that owners of the firm are the insurance consumers. This means two separate economic interests, business decisions—aimed at profit making, solvency, monitoring management among others—and consumption decisions—such as standardization of plans, coverage options and services desired—are condensed in a single stakeholder group. The consolidation of interests can create benefits for insurance consumers.

Collectively bargaining as owners, consumers can voice their preferences on type of coverage, choice of standardized insurance plans, and stabilizing premiums. Because of the size of the bargaining unit, even in the presence of risk rating, consumers-owners may face better premiums as compared to the individual market, for a given risk category. In this sense consumer-ownership removes the social cost of under consumption and extends the market to include high-risk people who otherwise get priced out of the market. Increased size of bargaining unit and cohesive preferences for insurance can widen choice in coverage and plans available to the patron owners. This can be a significant market benefit. Evidence suggests that administrative cost burdens severely restrict consumer choice in health plans in the individual and small



group (Wicks, 2002).

Cooperatives require a critical mass of consumers for insurers to be willing to insure them. Sociologists and psychologists have long argued that group identity can significantly alter economic decisions; ownership and common bond can make a consumer feel like an insider and create enough incentives to prevent the pool from unraveling. Being an insider can also deter ex-post moral hazard by providing incentives to prevent risky or costly behavior. As owners, the board can collectively monitor and combat over utilization by changing the benefit plan designs. Cohesion of interests can serve as an effective tool to reduce risky behavior. For example, I am less likely to operate a chain saw under the influence of alcohol if my neighbor farmer who is also a member of the cooperative is watching me.

While size of the bargaining unit and ownership have the potential to improve upon market outcomes, close proximity of consumer-owners to the board and management may hinder best business practices. For example, a well-meaning consumer board may try to accommodate too many disparate consumer interests, jeopardizing pool stability and leading to pool disintegration.

There are many examples of Health Insurance Purchasing Cooperatives (HIPCs) that have failed because of small pool sizes, inability to contain administrative costs and difficulty in attracting insurers. A single bad year with many claims can expose the cooperative to the “death spiral” where healthy people start leaving (Hall, Wicks and Lawler, 2001). Other examples of failed cooperatives include the Family Health Plan Cooperative in Wisconsin, which wrote health maintenance plans for more than 70,000 enrollees but exercised bad management practices, resulting in the cooperative failing (OCI, 1997).

### **Farmers’ Health Cooperative of Wisconsin**

Because of the rich tradition of agricultural cooperatives in Wisconsin, particularly within the dairy sector, farmers came together with the Cooperative Network to advocate legislation that would permit farmers to form cooperatives for health care purposes. The result was the Farmers’ Health Cooperative of Wisconsin (FHCW). It provides an informative case study in the context of the current health care reform debates.

The legislation focused on increasing farmers bargaining power, given their unique insurance needs and their risk characteristics, so that collectively they could negotiate better insurance contracts than on their own. In 2003, Coop Care, the state legislation under Wisconsin statutes section 185.99, authorized the formation of HIPCs and allows them to buy insurance, under rules that apply to the large-group insurance market, from licensed insurers for their member employers and farmer households. Cooperatives that form under Coop Care do not have the authorization to act as insurers. The state of Wisconsin has a separate statute for cooperatives to act as insurers that subject them to state insurance regulations.

Since farmers are considered a high-risk group, the credibility of the cooperative hinged on the Federal appropriation of \$ 4.45 million, through the United States Department of Agriculture, for startup administrative costs and an initial stop-loss fund. In 2007 the FHCW bargained and formulated an insurance scheme tailored to meet farmers’ needs at more reasonable prices through ATENA (ANTHEM, starting January 2010) Insurance.

All Wisconsin farmers between the ages of 18-64 with 66% of their income derived from farming activities are eligible to become members of FHCW including individual farmers, farm households, farm employees, and larger farmer/agribusinesses. At present, FHCW provides insurance for 1,146 households with approximately 2,600 individuals covered. The cooperative offers six different plans with initial underwriting that establishes differential rates across members. This allows some flexibility in crafting policies that are specific to each person’s risk characteristics and needs.

The cooperative insurance plans have the following features: guaranteed issue—all farmers meeting eligibility criteria can purchase insurance through the cooperative, coverage for work related injuries—the plan also covers work related injury not covered by worker compensation benefit and provides up to \$2000, per member and per accident, to cover out-of-pocket medical costs resulting from accidents; preventive care coverage up to \$ 500; prescription drug coverage; maternity coverage; and mental health coverage.

The FHCW is still in its formative stage, and, hence, it is too soon to predict whether it will succeed.

Anecdotal evidence, however, suggests that farmers belonging to the cooperative are pleased with the health insurance scheme.

### **Preliminary Evidence of Improved Market Outcomes**

Because of guaranteed issue, even those farmers with pre-existing conditions, meeting the eligibility requirement, can purchase insurance. This is a marked improvement from the individual market where insurers can deny coverage. The cooperative has extended the insurance market to include approximately 200, or 8% of current members, previously uninsured farmers. Clearly, guaranteed issue can be a double-edged sword; it can attract higher risk consumers to the more generous coverage thus making the pool vulnerable to unraveling. FHCW has increased its membership by 146 since opening its doors to 1000 member households.

The best improvements, according to anecdotal evidence, are in the form of improved insurance coverage and choice in plans and providers. Many farmers claim that for the first time they have access to 24-hour nurse line, preventive care, a choice among plans, and freedom to choose from different health care providers. FHCW provides the state-mandated package with maternity care and mental health. In the individual market, maternity coverage is generally purchased as a rider, which can add \$1000 annually to premiums. Furthermore, the Federal Mental Parity Law does not apply to individual markets so mental health coverage, if offered at all, is extremely limited.

Since Wisconsin dairy farmers are already entrenched in the culture of cooperative business structures they are less likely to leave the health insurance cooperative for marginal improvements outside the cooperative. The benefits of ownership stake, improved product choice, product quality and requiring a three-year commitment must outweigh healthy farmers' outside options—with perhaps less generous coverage—to prevent the pool from unraveling.

This said, given the risk characteristics of the pool, guaranteed issue, and historical evidence of HIPC failure, it is likely that some government intervention will be needed to keep the cooperative viable. The \$4.45 million stop loss fund buffers the cooperative against an extremely bad claims year.

### **Future Potential for Health Insurance Cooperatives**

The FHCW provides insights into the expandability of cooperatives to cover farmer groups in other states, or small businesses and the self-employed. Advantages of the cooperative model include the following:

1. Collective bargaining can improve choice in plans and standardizes coverage giving consumers a better value at competitive rates.
2. Strong common insider identity can act as a commitment device to prevent pool disintegration.
3. Insider identity and ownership stake can provide better incentives to reduce ex-post moral hazard—stabilizing premium increases for the consumer-owners.
4. To the extent there is imperfect competition in the market for health insurance, consumer ownership might lead to a pro-competitive effect of enhanced coverage and quality.
5. Inside information and participatory governance can create incentives for monitoring management and leveraging bargaining power.

Since the inception of Coop Care many other bargaining cooperatives have formed in Wisconsin. For example, Healthy Lifestyles Cooperative currently includes 120 small employers and 3,600 individuals and Physicians Health Cooperative includes members of the Wisconsin Medical Society.

Still, the cooperative business model does not solve adverse selection problems. Guaranteed issue to include all risk types, a desired social optimum, tends to attract a higher ratio of unhealthy people. If the healthy people do not value ownership and insider identity sufficiently to forego outside options, like all other private insurers in the small group and individual market, providers need to write insurance contracts that are less attractive to the high claimants. In such an instance cooperatives will not be able to keep health care costs low. Cooperatives are not good institutional solutions for a group comprised entirely of high-risk users such as the elderly or dialysis patients. Cooperatives rely on critical pool size and a high ratio of healthy

people in their group to effectively provide insurance.

Cooperatives may not be the best market intervention for the very poor if the negotiated premiums are too high and exceeds their willingness and/or ability to pay. In this case the government would need to intervene and subsidize the cooperative negotiated premium. Thus, cooperatives can be a potential solution to the health care crisis but cannot be the entire solution; they are not a “magic bullet”. Government subsidies are still required to achieve the socially desirable outcome of insuring the poor or the sick. Governments have a critical role to play if HIPC’s are to be part of any reform package—as an arms length reinsurer for unforeseen high claims years or a subsidizer of high risk claimants.

**Figure 1: Health Insurance Cooperatives**

<u>Can</u>	<u>Cannot</u>
Increase the size of the bargaining unit.	Solve adverse selection problems.
Standardize health insurance plans.	Guarantee pool stability if there are too many high claimants—need government as an arms length reinsurer.
Insider identity as owners can increase pool stability.	Bargain better premiums for the really poor or the really sick.
Mitigate ex-post moral hazard and reduce over-utilization.	

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## CHILDREN'S HEALTH INSURANCE AND NATIONAL HEALTH POLICY

Tracey L. Farrigan

In recent years there has been growing interest in reducing differences in health-related outcomes by race, gender, socioeconomic status, residential location, or other grouping through research, education, and collaboration. Upholding that vision in the course of developing, implementing, and sustaining national health policies is a priority of the current federal administration. Consideration of broad-based legislation that proposes to improve public health and ensure health equity is ongoing. Access to health care resources through universal health insurance coverage and related health promotion provisions are among the most controversial aspects of that legislation.

This article addresses those issues in the context of rural America, specifically as they relate to health outcomes for children in low income families. I argue that access to health care resources, vis-à-vis health insurance, and health promotion issues for children are complex. However, that complexity needs to be given critical consideration if effective health disparity reducing policies are to be adopted and health outcomes improved for rural children.

### What is the Issue?

Health care access issues in rural settings have consistently been characterized by regional concentrations and a combination of factors related to economic well-being. For instance, in a recent study published by the South Carolina Rural Health Research Center (Probst, et al. 2002) it was reported that the prevalence of community-wide economic constraints in high poverty rural areas makes it not only difficult for residents to afford health care services, but also for communities to attract providers. Similarly, in a recent study published by USDA's Economic Research Service (Jones, et al. 2009), it was reported that rural populations experience lower access to health care along the dimensions of affordability, proximity, and quality, compared to their urban counterparts. Further, lower socioeconomic status contributes negatively to the health status of rural residents.

Those studies and a variety of others produced in the last decade suggest that rural residents face a unique combination of health care disparities not found in urban settings, and thus, policy prescriptions must take that uniqueness into consideration. However, they also add to a wider body of research that in sum provides irrefutable evidence that poverty is related to poor health and that health status improves with increased economic status. While the gradient of change varies, this association has been shown to hold across demographic groups as well as residential locations and different measures of economic status. This implies that while a host of community and individual characteristics may be relevant to accessing health care resources and achieving desirable health outcomes, economic well-being is the dominant factor. It also thereby suggests that health care reform proposals that help to diminish economic inequities may be the most efficacious.

Understanding the potential for any health policy to produce meaningful change, however, is complicated by the fact that there are several pathways through which health outcomes may be affected. For example, extending health insurance coverage to all may reduce the number who are denied medical services or forego necessary treatment altogether due to affordability issues. It may also influence the decision process of individuals with regard to health promoting behaviors. For instance, having health insurance may increase

the likelihood that a poor individual will seek preventative care, such as through regular medical check-ups. In either case the impact of economic inequities at the individual level on health outcomes and associated disparities due to insurance coverage may be minimized.

That premise that health insurance coverage is an important predictor of health behavior and resultant health outcomes is regularly used to argue in favor of related policy proposals. Yet, a growing body of research suggests that the aforementioned relationship between economic status and health status remains unchanged after controlling for health insurance. The evidence is particularly strong with respect to children (Bauman, Silver, and Stein 2006). This raises several pertinent policy research questions, such as: What is the direct impact of health insurance coverage on health status? What is the net effect of health insurance on health status given its potential to influence health promoting behaviors? What is unique about children that make it less likely that change in health outcome disparities will result from increased health insurance coverage?

### **Child Health Characteristics**

The last question can be answered in part by the fact that child health has unique characteristics that differentiate it from adult health, and therefore, health care issues for children are not identical to those for adults (U.S. Department of Health and Human Services 2004). For instance, there are many stages of development and growth through which children pass in a relatively short period of time. Healthy completion of each stage of that process is an important determinant of health in the next. Therefore, the timing of increased access to health care through insurance may be more critical to children's health than to that of adults. Further, children's basic physiology differs from that of adults, as demonstrated by age specific patterns of health, illness, and disability, all of which create differential quality-of-care problems.

Another characteristic is that children's health care is dependent on adults. They depend on the decisions and actions of adults with respect to accessing health care and the consistency of that care in terms of timeliness, follow-through, coordinating care, and ensuring preventive services. Continuity of care is also an issue for children. Unlike adults, children tend to receive health care in a multitude of environments, such as in health clinics, in school, and in the home, where health insurance coverage may be less relevant to receipt and quality of care. Additionally, the development of good or bad health behaviors in children is dependent on exposures, such as diet, exercise, smoke, violence, and other factors that are associated with and impacted by family behaviors.

Lastly, poverty alone increases the complexity of health issues for children and may thereby increase the likelihood that health status disparities will persist despite policy intervention. Children make up more than one-third of the nation's poor and child poverty rates are consistently higher in rural than in urban areas. The full impact of that poverty on the well-being of rural children during adolescence and over their life course is not known, but there is ample research to suggest that their overall health is significantly compromised in comparison to children of nonpoor families. For example, poor children have been shown to have higher rates of obesity, chronic disease, and mortality and lower rates of comprehensive and consistent health care coverage than their nonpoor counterparts. They have also been shown to have lower levels of engagement with health promoting behaviors, such as exercise and preventative medical exams.

Far less is known about those differences given the depth and extent of family poverty. A broad range of consequences of low income have been documented in prior health disparities research, but that research has tended to focus on poor versus nonpoor groups. Yet, low-income populations are not easily divided along those lines when considering federal policy. Differences exist with respect to source and level of income, recipient age, and family structure when it comes to eligibility for participation in social assistance programs. Thus, without going into statistical detail, it is fair to conclude that the health related benefits of those programs, such as food stamps and public health insurance, are not equally available to and accessed by all poor families with children. Further, some of those benefits are accrued by nonpoor, low-income families.

### **Health Insurance, Behaviors, and Outcomes**

The impact of program eligibility on health outcomes may influence the ability for increased health insurance coverage to reduce disparities. In other words, the maximum return on health insurance coverage alone may have already been reached for some children among the poverty population through existing federal policy,

but not for others. Recognizing that along with the combination of unique characteristics of rural, child, and poverty populations, is critical in the evaluation of proposed health reform policy. Data from the 2007 National Survey of Children's Health are used here to illustrate the benefits of taking the complexity of those relationships into consideration (U.S. Department of Health and Human Services 2009). The details of this analysis are discussed in brief in order to focus the remainder of the article on summarizing the key findings and their implications.

Selection of cases to be analyzed is based on rural residence and family income below 200% of the federal poverty level. Three income groups are produced from the sample: low-income, nonpoor families; working poor families; and nonworking poor families. For each group, descriptive statistics, graphical path analysis, partial least squares regression, and statistical decomposition are used to answer the two remaining research questions: What is the direct impact of health insurance coverage on health status? What is the net effect of health insurance on health status given its potential to influence health promoting behaviors?

The indicators for health insurance coverage include the existence of any health insurance coverage, the adequacy, consistency, and type of health insurance coverage if any, and associated out of pocket expenses. Child health promoting behaviors include preventative medical and dental examinations, sleep patterns, and exercise habits. Health promoting behaviors in the family environment include parental health status, exercise habits, and the smoking habits of all family members. Health status consists of perceived health of the child, activity limitations, presence of chronic disease/illness, and body mass given height/weight by age. Several demographic characteristics are also used in the analysis: child's age and race, parental education and nativity, and family structure.

**Table 1**

**Health Insurance Indicators and Associated Survey Questions**

<b>Any insurance</b>	Does the child have any kind of health care coverage, including health insurance, prepaid plans, or government plans?
<b>Consistent insurance</b>	During the past 12 months was the child consistently insured (any form of insurance), consistently uninsured, or uninsured periodically?
<b>Adequate insurance</b>	Are the child's health care needs adequately met/covered by his/her health insurance?
<b>Type of insurance</b>	Is the child primarily covered by private insurance, public insurance, or uninsured?
<b>Out of pocket costs</b>	Are there current out of pocket costs associated with health insurance and if yes, are they reasonable?

Source: Economic Research Service, using documentation from the National Survey of Children's Health, 2007.

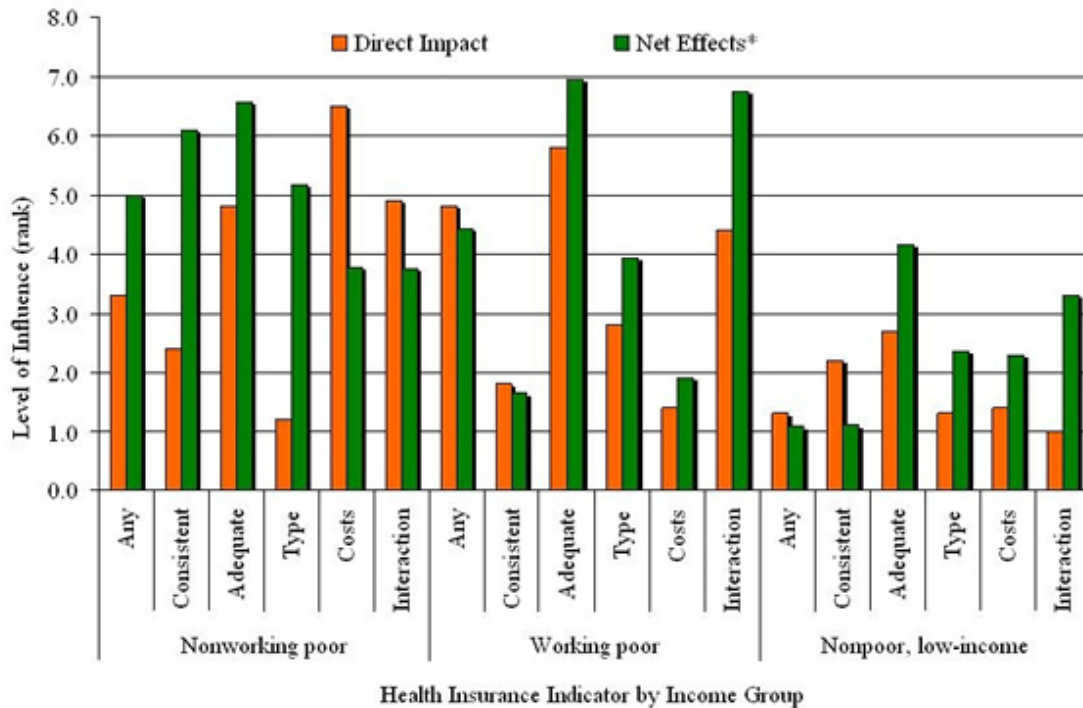
The descriptive statistics show that the likelihood of having any health insurance coverage at all is not significantly different among the three income groups. However, differences exist with respect to type and adequacy of insurance coverage as well as out of pocket costs. All of the child health indicators and demographic characteristics are found to be significantly different among the income groups, as are all health promoting behaviors except for child sleep. These findings suggest that factors other than just having health



insurance coverage are relevant to rural child health status, but where health insurance coverage exists, aspects of that coverage may be influential in determining both behaviors and outcomes. These conclusions are confirmed by supporting analyses.

A statistical summary of those analyses is presented in Figure 1. The values on the vertical axis represent a scale of 0 to 10, where 10 is the most influential aspect of insurance coverage on child health status overall and 0 the least influential. Given that, out of pocket costs have the greatest direct impact (6.5) on child health for nonworking poor families. Yet, it is the least influential when considering net effects (3.8). Adequacy is second for direct impacts (4.8), but it is the most influential for net effects (6.6).

**Figure 1: Direct Impacts and Net Effects of Health Insurance Coverage on Child Health Status**



Source: Economic Research Service, using data from the National Survey of Children's Health, 2007.

\*Net effects represent the impact of health insurance on health status both directly and indirectly through behaviors.

The difference between the direct and net values is explained by the influence of health insurance adequacy on health promoting behaviors and the manner in which those behaviors influence health status. In other words, if the influence of adequacy of insurance on behavior was not considered then its relevance to overall health status for children of nonworking poor families would be underestimated by 27%. Comparatively, the influence of out of pocket costs would be overestimated by nearly 42%. However, the difference between the two measures is greatest for type of insurance, with an estimated direct impact of 1.2 and 5.2 for net effects. Therefore, failing to consider the impact of type of health insurance—public or private—on health status through health promoting behaviors would render it nearly 77% less influential. Similarly, consistency of insurance and having any insurance coverage at all would be underestimated by nearly 61% and 34%, respectively.

Adequacy is also the most influential for children of working poor families. This is found to be the case for both direct impacts (5.8) and net effects (6.9). The same is found to be true for children of nonpoor, low-income families, but to a lesser degree (2.7 direct and 4.2 net). Overall, each of the insurance indicators is found to have some independent measure of effect on rural children's health status, either directly or indirectly through health promoting behaviors, for the three income groups. However, when considering the interaction of all of the health insurance coverage indicators used in the analysis, their combined influence is found to be greatest for children of working poor families (6.7 net). This suggests that on the whole, quality of

insurance matters especially for children of working poor families.

### **Implications for National Health Policy**

These findings lend support to the premise that health insurance coverage is an important predictor of health behavior and resultant health outcomes. In so doing, they also suggest that conjoined policies that seek to increase the rate of insurance coverage and health promoting behaviors will have a greater impact on the health outcomes of children in low-income rural families than increasing insurance coverage alone. Further, the magnitude of that impact will likely be greatest for children of working poor families, which in turn may help to reduce health outcome disparities between poor and nonpoor income groups as well as within low-income groups.

With respect to the relevance of health insurance coverage in general, it can be concluded that health insurance availability is less important than the quality of the insurance in determining health outcomes. This conclusion points to the importance of policy discussions that consider type, consistency, and adequacy of insurance, as well as other related factors. Likewise, research used to inform health policy must go further to provide an understanding of the degree to which those factors serve as mediators of health promoting behaviors and thereby indirectly influence health outcomes. Lastly, if health disparities are to be addressed then information about the manner in which certain policies are most appropriate and their potential effect on sub-populations is essential.

In that regard, the study touched upon in this article argues for research-based social policy; whereby a behavioral approach is in some way integrated and carried out in developing health care policy. In this instance, for example, the likelihood that health insurance will influence health promoting behavior is greatest for nonworking poor families given the consistency of insurance coverage. However, considering the estimated net effects in relation to health outcomes, adequacy of insurance is found to be most influential across all low-income groups. This suggests that an effective and efficient health promotion policy aimed at serving children in rural low-income families would be that which targets improvements in both the comprehensiveness and quality of health care coverage. Further, if reducing health inequities within the rural low-income population is a policy goal, then inconsistency of health insurance coverage must also be addressed.

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## RURAL HOSPITALS, REIMBURSEMENT POLICY, AND HEALTH CARE REFORM

Paul E. McNamara

*"Distribution of medical services to rural people is more expensive, and their means of payment are less, than in urban areas. Rural people thus have an interest in the solution of the national problem of the distribution of medical care; few groups have more to gain."*

*-Calvin W. Stillman, Journal of Farm Economics, 1949*

The health and welfare of rural people has been a central concern of agricultural economists for many years as the quote from Calvin Stillman illustrates. It remains the case that rural people have much at stake in the current debate over health care reform. As the workshops for rural physicians and the basic medical institution that coordinates and delivers care in small rural communities in the United States, rural hospitals provide an important vantage from which to examine the current health care reform proposals.

Rural hospitals provide a key link in the delivery of health care services to rural people. Access to health care depends upon a number of factors including insurance, income, education and knowledge, as well as time costs and out-of-pocket costs. Locally available health care services, especially primary care and first level emergency services, allow residents in areas with low population densities to obtain basic health care services conveniently. Despite the attention to and improvement in rural hospital finances over the past decade, the health care reform legislation now being considered at the federal level poses both opportunities and challenges for rural hospitals and their communities. This paper reviews the situation of rural hospitals and outlines areas where the health care reform may impact rural hospitals.

### Rural Hospitals Background

While health care markets continue to change at a rapid pace due to technological advances, pressures arising from higher costs, organizational changes and the emergence of a variety of networks and new health care institutions, and demographic and economic conditions, rural hospitals remain the hub of most rural health care services in the United States. In many rural communities the hospital remains the central organizing institution for locally delivered primary care and emergency services. Hospitals retain their importance through their role as a workshop for physicians and from their institutional role as a business form that often owns other health care services, such as clinics or emergency medical services. Rural hospitals also provide an organizational means of contracting in services provided by outside health care systems and practices.

To appreciate the situation of rural hospitals today it helps to understand the dilemma rural hospitals faced in the 1980s and 1990s. Over the period 1980—1998 the overall number of community general hospitals nationally decreased by 11.8% due to mergers, closures, and conversions into another form of health care organization (Ricketts, 2000, p.645). While some new facilities opened, over 1000 hospitals closed during this period, and 438 of them were located in nonmetropolitan areas. The year with the most rural hospital closures was 1989 when 50 closed (Ricketts, 2000, p. 645).

Rural health researchers and hospital leaders agree the primary factor that generated the decline of the viability of small rural hospitals in the 1980s and 1990s was Medicare reimbursement policy. Medicare

systematically adjusted its payments to rural hospitals downwards due to the lower costs of labor inputs in rural areas. Medicare, through its prospective payment system, paid rural hospitals less than hospitals located in metropolitan areas for the same services. Overtime this combined with declining or stagnant population bases, increased competition within health care markets regionally, and greater mobility of residents, led to significant financial pressures on rural hospitals.

Beginning in the late 1980s and early 1990s a change occurred in federal rural health policy that recognized the justification for a limited service model of a hospital that received enhanced payment from Medicare, in recognition of the facility's special role as a sole and limited-scope source of care. Beginning with an experiment in Montana in 1987 and in seven states in 1989, the federal Health Care Finance Administration implemented a demonstration program of limited-service hospitals with a very small number of beds, a limited length of stay of under 72 hours, and a fixed transfer agreement with a larger community hospital that would accept all transfers from the limited service hospital. While some eligible rural facilities choose not to participate, these demonstrations helped set the stage for a broader rural health policy effort that has impacted rural hospitals dramatically, namely the Rural Hospital Flexibility Program (Flex Program) that inaugurated the category of hospitals called Critical Access Hospitals (CAHs).

### **Rural Hospital Financing: the Critical Access Hospital Program**

The Flex Program was approved in the Balanced Budget Act of 1997 and the program has two main dimensions. First, a program that awards grants to each state to improve rural health care was implemented. Second, the Critical Access Hospital program, administered by the Centers for Medicare and Medicaid Services (CMS) was launched. The CAH program allowed hospitals to receive cost-based reimbursement for services provided to Medicare beneficiaries providing they meet the following criteria: 25 or fewer beds; average length of stay for acute patients of 96 hours or less; and a distance criteria of more than 35 miles by primary road and 15 miles by secondary road or certified as a "necessary provider" by their state government with CMS approval. CAHs also needed to be located in a part of the state that is not in a Metropolitan Statistical Area and be part of a rural health network that addresses issues such as patient referral and transfer, improved communication systems, provision of emergency and nonemergency transportation between the CAH and the referral hospital, and credentialing and quality assurance procedures.

Beginning with its launch in 1999, the CAH program has seen strong participation by small rural hospitals. The years 2001 and 2005 were the years with the highest enrollments, with the large number joining in 2005 because the federal government had signaled its intention to stop allowing states to waive the distance criteria with "necessary provider" criteria. As of July 2009, 1305 hospitals had joined the CAH program since 1994.

In terms of CAHs by state, Kansas leads the country with the most CAHs (83), followed by Iowa (82), Minnesota (79), and Texas (76). Most of the states with high numbers of CAHs are located in the middle of the country and they feature large areas with relatively low population density and a large number of small towns. Five states—Connecticut, Rhode Island, Maryland, New Jersey, and Delaware—have no CAHs.

The participants in the CAH program have generally experienced a favorable contribution to the overall hospital finances due to the cost-based reimbursement. Stensland, Davidson, and Moscovice (2004) report that the hospitals converting to CAH status in Fiscal Year 1999 received an additional \$500,000 in FY00 inflation adjusted dollars from their Medicare inpatient and outpatient reimbursements. They report that for these hospitals Medicare payments increased 36% on average while Medicare patient days dropped by 8%.

Another analysis of the impact of CAH conversion on participating hospitals also found a positive financial impact (Schoenman and Sutton, 2008). They found that hospitals converting to CAH status reduced their number of beds—by roughly one-third—at the time of entry into the program. They also found that converting hospitals generally reduced staffing levels, mostly in the second year following conversion. While staffing levels dropped in these converting hospitals, average salary levels increased by about one-third over the first three years post-conversion (Schoenman and Sutton, 2008, p.8). A striking financial impact on the CAH finances that Schoenman and Sutton report is the increase in average revenue per bed for CAH converters, measured at 69% increase in revenue per bed for hospitals converting in 1999 and 48% for hospitals converting in 2000. Schoenman and Sutton also found that "CAH converters experienced large declines in their number of Medicare inpatient discharges in the year following conversion (p. 9)."

With the new found financial breathing room, many CAHs have reinvested into their facilities and technological base. Another dimension of the Flex Program is to improve the quality of care delivered at CAHs. Casey and Moscovice (2004) studied quality improvement programs at CAHs and they found “cost-based Medicare reimbursement has been a key factor in the ability of CAHs to fund additional staff, staff training, and equipment to improve patient care (p. 327).” The network requirements of the CAH program and the state-level Flex grant and program activities have promoted information sharing regarding quality improvement activities. The new financial resources through the CAH program allowed the purchase of needed equipment, especially expensive items such as CT scanners, radiology equipment, and laboratory equipment. Some hospitals have utilized the finances to invest in entirely new physical plants or to undertake major rehabilitation projects for their facilities.

**Figure 1. New CAHs per Year**

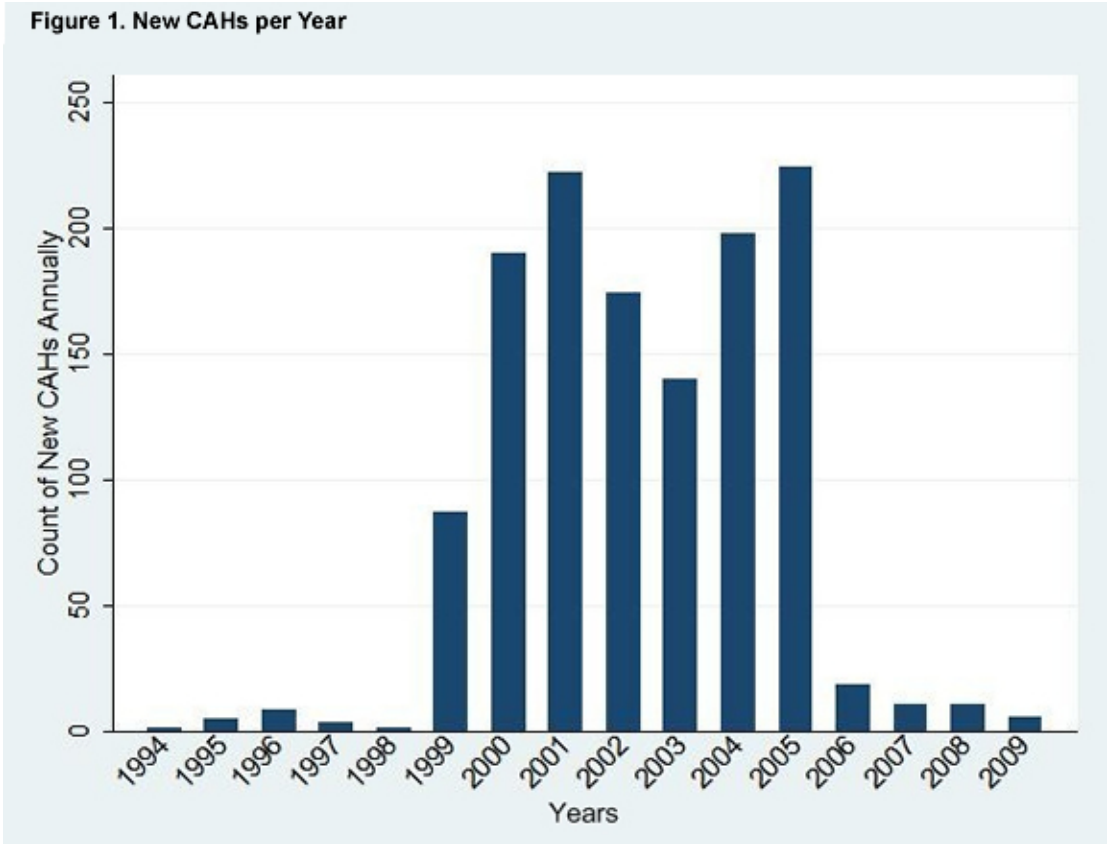
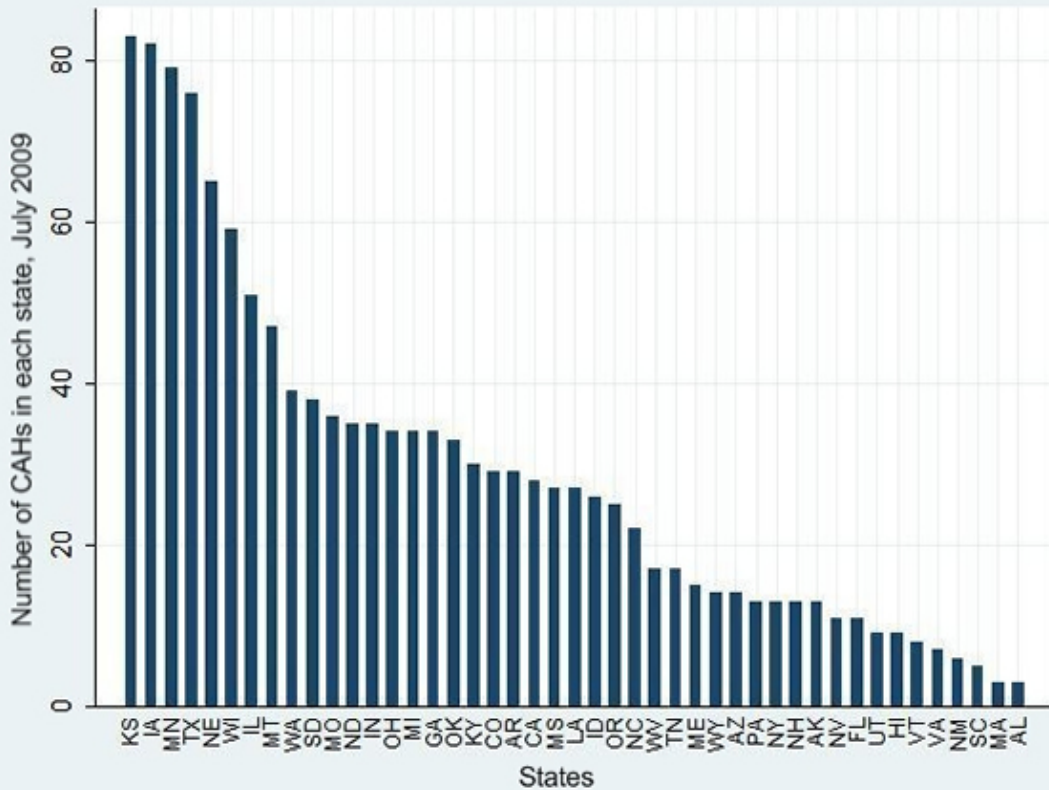


Figure 2. CAHs by State, July 2009



### Local Provision of Health Care: Why Rural Health Services?

When economists who are unfamiliar with the somewhat arcane Medicare payment policy formula rules hear about a special Medicare program that offers cost-based reimbursement to small rural hospitals, they often voice concern about the differential treatment provided to the CAHs. What is the economic rationale for the CAH program? Is the Flex Program sound health care policy for rural areas?

One strand of economic thinking about rural hospitals concerns the impact and benefit from rural health care on the community's economic health. Economists and health care analysts have estimated Input/Output (I/O) models of the economic contribution of hospitals on local economies. An early study by Christianson and Faulkner estimated the impact of a rural hospital closure on the local economy in 1978 and found it would be in the range of \$686,405 to \$1,083,282. Doeksen and coauthors(1998) estimated an I/O model for a hospital in Stigler, Okla. and predicted a hospital closure would lead to the loss of 43 hospital jobs and an additional eight jobs in other sectors of the economy in the first year after closure. Over time the loss of jobs increased to a total of 78 direct and indirect jobs lost. Statisticians and econometricians have also examined the impact of a hospital closure on the economic fabric of rural communities. A recent study by Holmes and coauthors examined hospital closures in the time period of 1990-2000 and their impact on per-capita income and unemployment. They found that the closure of the sole hospital in a rural county led to a decrease in the per capita income by 4% or \$703 in 1990 dollars. Additionally, they found that the hospital closure led to an increase in the rate of unemployment by 1.6 %. If a hospital closed in a county with another easily accessed source of care, they found no long term impact on income or unemployment.

While the economic contribution of a small rural hospital is undoubtedly important, economic impact is not a primary outcome of concern in health care policy and debates. Thus, researchers and analysts have also studied the impact of hospital closures on access to care and health care utilization. For example, Bindman, Keane, and Lurie (1990) followed over time a set of California patients from a rural hospital that closed. They found that one year after the closure, a higher ratio of the patients from the closed hospital had no regular health care provider and were denied care, relative to a comparison group of patients from a nearby control



hospital. Similarly, Hadley and Nair (1991) studied Medicare participants who used rural hospitals prior to their closure. They constructed control groups of patients from similar nearby hospitals, yet the comparison showed no significant differences in hospital utilization between the former patients from the closed hospitals versus the control group. These studies can be criticized as not necessarily able to be generalized to the situation which would have occurred if rural hospital closures continued at the pace of the mid-1980s and early 1990s and geographic access in rural areas declined to never before observed levels. More recent research (Hadley and Cunningham, 2004) on the availability of community hospitals and safety net clinics shows that while shorter distance to a safety net provider improves access to care for uninsured people, the magnitude of the effect is small compared to the effect of having health insurance coverage.

The access to health care literature frames the question of the role of small hospitals in terms of health outcomes, but it does not derive from a framework that allows a cost-benefit or welfare theoretic evaluation of rural health policy. To obtain estimates of the location value of medical facilities, economists have implemented travel cost estimates to infer the welfare benefits that arise from the location-specific delivery of health care services. This literature builds upon the work of Acton (1975) who sought to explain the role of non-monetary factors in the health care decisions of New York City residents. He found that when out of pocket costs decline, the role of distance and other factors related to time-costs serve to ration health care demand. Christianson developed several early applications of the time-cost approach to the evaluation of rural health policy questions. Christianson (1976) reports estimates of the willingness to pay for different medical clinic sites in Central Wisconsin. A further analysis (Christianson and Bender, 1982) applies the cost-benefit approach to analyzing the closure of a rural hospital in a hypothetical case.

The time-cost approach has continued to be applied to health policy analysis, especially in rural health applications. Clarke (1998) estimated the welfare benefits of a mobile mammography unit in rural areas of Australia using discrete choice models and found the benefits of the mobile screening outweighed the costs if the rural town was at least 29 km from the fixed mammography unit. Capalbo and Heggem (1999) provide a framework for rural health policy evaluation of the Critical Access Hospitals. They argue random utility models with information on hospital alternatives and their characteristics can be used to estimate the benefits of rural health policy changes. McNamara (1999) provides an example of a discrete-choice travel-cost model to measure the location specific delivery of hospital services in a rural area of the United States. He finds that relative to a hospital closure in a rural area, maintaining a small-scale limited service facility reduces the welfare losses. Additionally, McNamara (1999) presents estimates of the locational value of a rural hospital that is well above one million dollars per year (1988 dollars). Using the travel cost approach to analyze the welfare impacts of a telemedicine program in Alaska, Berman and Fenaughty (2005) find telemedicine increases patient welfare at \$40 per visit.

To sum up, the economic literature on rural hospitals has shown they provide a measurable economic contribution to the local economy. In addition, some evidence exists concerning the importance of sources of care within a reasonable distance for access to care measures for uninsured people. Lastly, the literature on the value of rural health services provide a framework, though only a very limited set of estimates exist, that points to a significant value deriving from the local provision of community hospital services in a rural community. This is an area where economists interested in applying some of their valuation estimation methods may be able to make a useful contribution to rural health policy through additional research.

### **Health Care Reform and Going Forward**

From the perspective of rural hospitals what impact would health care reform, as it is currently being discussed, generate? The proposed health care reform, if passed, is likely to lead to significant improvements in the coverage of health insurance and in the quality of health insurance for people currently purchasing insurance in the individual or small-employer market. Additionally, Medicaid may see an expansion.

Rural health research demonstrates that rural residents who have lower incomes are more likely than higher income residents to use the local rural hospital (McNamara, 1999). Further, rural residents with Medicare or Medicaid insurance and who are uninsured are more likely to use a rural hospital relative to similar residents with private health insurance coverage (Escarce and Kapur, 2009). By serving a disproportionate share of patients with poor quality health insurance, no insurance coverage or with Medicaid compared to many large urban and suburban hospitals, small rural hospitals find themselves at a disadvantage in the health care marketplace. Health care reform that expands health insurance coverage and that has the prospect of increasing the quality of health care coverage in the small-employer and individual insurance market

segments, has the potential to improve the net revenues at small rural hospitals. Such an improvement could occur from the reduction in uncompensated care from the present situation. The reduction would result from previously uninsured people becoming insured and either using the small rural hospital with health insurance coverage or bypassing the hospital to seek services elsewhere. As hospital choice research illustrates, people with different types of health insurance choose the local small rural hospital with varying frequencies. Thus, some newly insured rural people may not choose to receive services at their local rural hospital. Nonetheless, from the perspective of rural hospitals, health care reform along these lines holds some promise of lowered levels of uncompensated care and unpaid bills.

That said, small rural hospitals can also see some unfinished or untouched business in the current health care reform. For many rural health care providers—both clinics and hospitals—a major headache in recent years has been the difficulty faced in obtaining payments from the state government for services delivered to the Medicaid program. As the prospect for state government finances is weak in many states, these reimbursement difficulties with Medicaid may worsen. Since rural providers see a disproportionate share of Medicaid patients, Medicaid reimbursement policy requires continued attention by rural providers (McNamara 2007).

Going forward, a dimension of health care policy which will be interesting for analysts to follow will be the extent to which the Medicare Flex program retains its highly targeted criteria. Already, politicians are seeking to change the program criteria so that any veteran in the CAH would not count against its limit of 25 beds. As hospitals that are currently in rural areas and are CAHs find themselves in more densely populated areas because of economic growth and metropolitan expansion, how will the hospitals or the program respond?

In conclusion, rural hospitals find themselves in a better position today than they were in the 1980s and 1990s, largely because of changes implemented in the Medicare program. In the future, the issue of the public funding is likely to be a more important determinant of the financial and operational health of small, rural hospitals. If the current health care reform delivers on broader health care coverage for rural people and improved quality of insurance for rural people who presently purchase in the individual insurance market, rural hospitals should be strengthened. This would improve the economic fabric of rural communities and the quality of life for rural people.

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## REFORM OF PHYSICIAN OWNERSHIP RESTRICTIONS AND THE COST OF HEALTH CARE IN RURAL AND URBAN MARKETS

James Barnes and J. Matthew Fannin

After much debate, Congress may pass major reforms to reduce the cost of health care in the U.S. However, many important questions remain unanswered. For example, current health care reform includes restricting physician financial ownership of hospital or other health care system assets in which physicians practice. Recent research suggests that when physicians have this type of financial ownership, patient Medicare costs are higher compared to if physicians have no financial ownership. Physicians are typically paid salary plus a share of hospital or health care system profits or derive income from the number of patients treated or tests completed for this type of hybrid contract arrangement. When physicians have no ownership in the health care system, they are paid only a fixed salary and operate under an employment contract, which means physicians become employees of hospitals or health care systems.

Briefly, we review how organizational economics research has viewed physician ownership and its relation to the emergence of health maintenance organizations (HMOs) and managed care contracting. Recent research has attempted to link increased physician ownership to higher Medicare costs. Although this is only one part of the overall cost structure of health care to be considered, it is an important one to rural America given that a higher proportion of the rural population is over age 65 compared to urban areas and therefore participates heavily in the Medicare program. Using data from the American Hospital Association, we examine hybrid and employment contracts hospitals use when recruiting physicians. We find some evidence that Medicare per capita costs are positively correlated with hybrid contracts in urban markets, but not in rural. This implies that restricting physician ownership in rural markets may affect the recruitment of physicians and, therefore, access to health care and the overall health of rural economies without reducing costs of health care.

### Studies Suggest Physician Ownership Increases Patient Costs

The vertical integration between hospitals and physicians has been examined extensively, especially in the 1990s as managed care contracting and HMOs emerged to curb costs and new contract arrangements were organized among hospitals, physicians and HMOs to compete for patient volume (Coles and Hesterly, 1998; Cuellar and Gertler, 2006). Vertical integration has been primarily viewed from the provider—hospital or health care system—perspective and generally refers to the level of financial investments made in health care assets and which party has the lion's share of the associated decision rights over those assets (Alexander and Morrissey, 1988; Mick, 1990). As a result, greater vertical integration has meant one party makes the largest financial investment in health care assets and retains the lion's share of decision rights over those assets.

But how do we understand what more or less vertical integration between physicians and hospitals looks like in practice? One approach is to consider the use of two alternative contracts that hospitals use to recruit physicians. If hospitals offer to pay physicians with only a fixed salary, physicians become employees of the hospital or health system. This establishes an employer-employee relationship providing the hospital with the lion's share of decision rights about many details of physician practice. Vertical integration increases for the hospital. Alternatively, less vertical integration for the hospital would mean investments and decision rights are shared between physicians and hospitals. Multiple forms of hybrid contracts are used by hospitals and

most provide one or more of the following to physicians: (1) physicians share in the profits of treating patients; (2) they invest financial resources in the health care infrastructure; and (3) physicians ultimately gain greater decision rights over patient care and the use of health care assets. Salary plus any or all of these additional attributes creates a hybrid contract between physicians and hospitals. Hybrid contracts offer physicians salary plus a share of profits or income derived from patients treated, number of procedures conducted or some other performance metric.

From a practical perspective, recruitment of physicians has been more difficult for hospitals located in rural areas. Simply put, rural hospitals must offer physicians an attractive set of contract terms; otherwise, physicians opt to practice in more competitive, urban markets where increased access to socioeconomic amenities and higher salaries exceed benefits in rural markets. As a result, rural hospitals often use high-powered incentives to recruit physicians, including hybrid contracts that provide salary, additional income and some decision rights over hospital assets (Barnes and Fannin, 2006; Fannin and Barnes 2007).

A related stream of research has examined how physician ownership of health care assets affects the patient cost of health care in urban and rural markets. Some studies have concluded patient costs are lowest when hospitals have more vertical integration via the use of employment contracts with physicians. Similarly, if physicians own health care assets, patient costs tend to be higher. For example, Sirovich et al. (2008) examined physician decision making in the United States to explore the relationship between discretionary physician decisions and the patient cost of care. They concluded physicians who operated in high-spending regions had increased patient visits and recommended more screening tests compared to physicians in low-spending regions. The upshot was both sets of physicians followed guideline-supported interventions. Similarly, Sutherland, Fisher and Skinner (2009) examined per capita Medicare costs in urban and rural areas. They examined the effect poverty, income, sickness of patients and other personal and regional factors have on the variation in per capita Medicare costs. They concluded most of the variation between high and low cost regions cannot be explained by these factors. Instead, most of the variation was attributed to physician discretionary decision making. Specifically, patients in high cost regions spent more time in hospitals and underwent more magnetic resonance imaging (MRI) and computed tomographic (CT) tests. However, the type of hybrid contract that led to the overprescribing of tests was not identified in either of these studies.

In an interesting case study, Gawande (2009) researched the differences in per enrollee Medicare costs between two border towns in El Paso and McAllen, Texas. Gawande examined several factors that might explain the relatively higher Medicare cost in McAllen. His analysis showed such factors as poverty level of the area, relatively sicker patients and many other factors together did not explain the increased cost. Instead, his analysis suggested the higher cost in McAllen had more to do with physician ownership of facilities. He concluded physicians were influenced by high-powered incentives for profit. In McAllen, physicians prescribed more tests, surgical procedures and other revenue generating activities to boost facility revenue, and therefore, their incomes. Gawande compared McAllen to the Mayo Clinic where physicians were paid a salary and collaborate regularly to improve quality of services. Gawande suggested the key to lowering health care cost was to reduce or eliminate the financial incentives that motivate physicians to overprescribe tests and other procedures in McAllen. Practically, the health care system in McAllen should have used more employment instead of hybrid contracts when recruiting physicians.

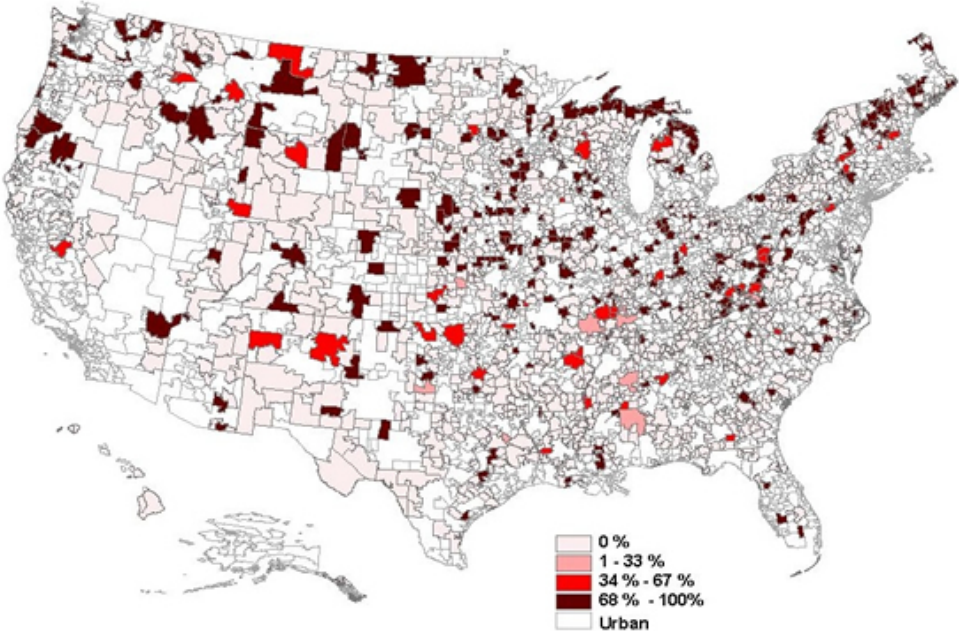
Although these studies suggest physician ownership increases patient cost, the studies have important limitations in generalizing results for policy implications. Most importantly for our interests here, no study has examined rural/urban differences in the relationship between Medicare cost and the type of contract used by hospitals to recruit physicians. Does the use of physician employment or hybrid contracts correspond to the presence of lower or higher per capita Medicare cost as suggested by previous studies?

### **Examination of Physician Ownership and Rural Cost**

The types of hybrid contracts used by hospitals to recruit physicians include Independent Practice Associations (IPAs), Physician Hospital Organizations (PHOs), Management Service Organizations (MSOs), Group Practice without Walls, Open Physician-Hospital Organization (OPHO), Closed Physician-Hospital Organization (CPHO) and Medical Foundations (Fannin and Barnes, In Press). Hospitals also use employment contracts. For example, Figure 1 shows the percentage of U.S. hospitals within a rural Hospital Service Area (HSA) that used employment contracts to recruit physicians. The darkest areas represent the highest percentage of hospitals that used employment contracts. This occurs more in the Midwest, Western

and some Northeast areas of the United States.

**Figure 1. Percent of U.S. Hospitals Using Employment Contracts to Recruit Physicians**



For a more detailed look at the relationship between physician ownership and costs, we correlated hybrid and employment contracts with per capita Medicare costs in rural and urban markets based on HSAs. Since the Medicare program has significant information about the location of patients, 3,436 HSAs were created as part of the Dartmouth Atlas of Health Care (1999) to track Medicare expenditures per region. We used the 2004 American Hospital Association data on hybrid and employment contracts with Medicare per capita cost to calculate correlations. For both contracts, we correlated the three year (2004-06) average per capita Medicare cost (Dartmouth Atlas of Health Care, 2009) with the percentage of hospitals using these contract types (Table 1).

**Table 1**

**Correlation between 2004-06 Per Capita Medicare Costs and 2004 Hospital Physician Arrangement Type by HSA region.**

	<b>Employment</b>	<b>Hybrids</b>
Rural	0.062**	0.000
Urban	-0.084***	0.082***

\* Significant at 10%, \*\* Significant at 5%, \*\*\* Significant at 1% and based on 1437 rural and 1084 urban HSA regions.

HSA regions not counted include 356 HSAs classified as "exurban" that included a mix of metro and non-metro counties in the HSA and 415 HSAs that completed the AHA survey but stated that none of their physician arrangements could be identified to the categories provided.

Correlation results indicate two insights about physician ownership and average per capita Medicare cost. First, the average per capita Medicare cost was negatively and significantly correlated with employment contracts in rural and urban markets. Although we cannot imply causation from such an analysis, the negative correlation matches our initial expectations for this relationship based on previous research. The same is true for the positive correlation between cost and hybrids in urban markets. Secondly, and most noteworthy, correlation results did not establish a positive relationship between cost and physician ownership in rural markets.

### **Physician Ownership Reform and the Future of Rural Health Care**

Current law (Section 1877 [42 U.S.C. 1395]) prohibits a physician from having an investment/ownership stake in any entity in which he/she refers patients. It also provides exemptions for any rural—non-MSA—health care entity and for hospitals in urban areas. Proposed law in the amended Senate version of the approved U.S. House health care reform bill (H.R. 3590.AS, Title VI, Subtitle A, SEC. 6001) (US Senate 2009) titled "Limitation on Medicare Exception to the Prohibition on Certain Physician Referrals for Hospitals" would eliminate the exemption for both rural and urban hospitals. As a result, physicians would not be allowed to financially own facilities in which they practice in rural or urban markets. But such a restriction does not appear necessary in rural markets as our analysis suggests that physician ownership is not positively correlated with average Medicare per capita cost.

Reform by way of restricting physician financial ownership in rural markets may have an adverse impact on rural hospitals and economies. Because rural hospitals typically represent the largest or second largest employer in rural areas, this type of reform could also mean job losses in rural economies. Why? Rural hospitals already have difficulty recruiting physicians as urban markets offer higher wages, lower cost access to amenities and better employment opportunities for physicians' spouses. Further restricting physicians from investing in rural practice—one of the few incentives rural hospitals can use to add income to a physician's salary and tie rural hospital performance to physician performance—could make recruitment even more difficult for hospitals in rural areas. Further limiting recruitment options for rural hospitals could mean fewer physicians practicing in rural areas, which in turn could mean less access to health care and potential job losses in rural economies. If the difference between urban and rural health care markets is ignored, restricting physician financial ownership in rural markets may have an opposite cost/access effect in rural America to that sought—rural residents may have less access to health care and at a greater cost.



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## MEDICAL COSTS ACCOUNT FOR THE LARGEST SHARE OF NONMETRO FEDERAL TRANSFER PAYMENTS

Timothy S. Parker

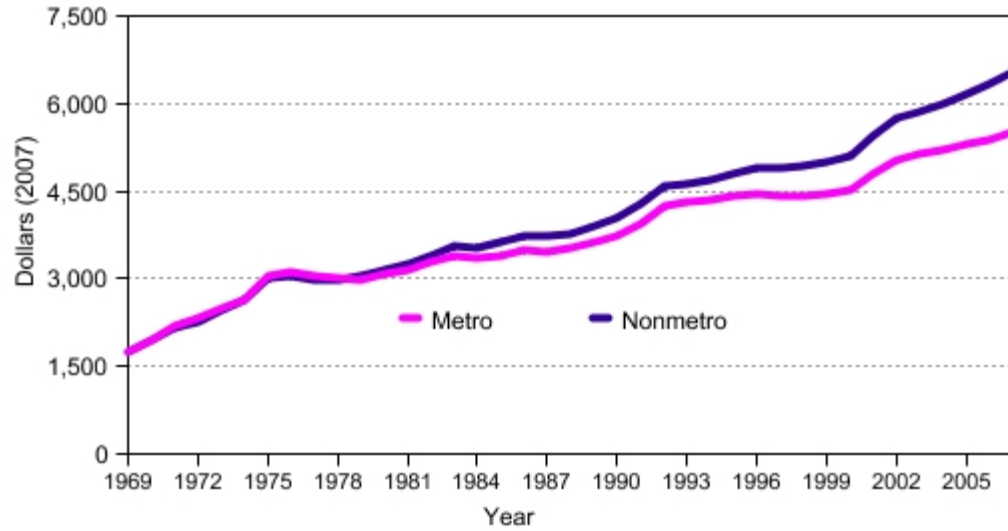
Of the \$1.71 trillion in Federal, State, and local government personal transfers payments in 2007, \$326 billion went to nonmetro residents and \$1.39 trillion went to metro residents. On a per capita basis, nonmetro residents received more transfers than metro residents, \$6,533 vs. \$5,516. With per capita income of \$28,781 in nonmetro areas and \$38,615 in metro areas, government transfers accounted for 22.7% of nonmetro and 13.6% of metro income in 2007. The federal transfer difference served to lower the metro-nonmetro per capita income gap in 2007, from 63.9% without federal transfers to 70.5% with transfers.

Nonmetro per capita transfer payments have been rising faster than metro since 1978. The majority of this increase is due to the rising cost of medical care, retirement, and disability payments. Nonmetro areas have an older population and a higher proportion of disabled persons than metro areas and thus depend more on transfer payments for retirement and medical costs (Jones, et al. 2009).

In 2007, medical benefits accounted for the single largest transfer payment category in both metro and nonmetro areas. In 1978, medical benefits accounted for 18.9% of all nonmetro transfer payments—the second largest category—and by 2007 these had risen 43.4%, making it the largest category of all nonmetro transfer payments. Similarly, in metro areas, medical benefits increased from 22.7% of all transfer payment in 1978 to 45.1% in 2007. Overall, between 1978 and 2007, nonmetro transfer payments for medical benefits increased 480% compared with 412% in metro areas. Some of the increase in metro and nonmetro transfer payments for medical benefits can be attributed to legislation expanding health insurance to children in working families through Medicaid and the State Children's Health Insurance Program (SCHIP). However, the rising cost of health care, which has far outstripped the overall rate of inflation, is a major source for this increase.

Transfer payments for retirement and disability insurance are still increasing, but in contrast to medical benefits, have been declining as a percentage share of total transfer payments. In 1978, nonmetro retirement and disability payments accounted for 51.7% of total transfers; by 2007, this percentage had fallen to 38.1%. Nonmetro retirement and disability transfer payments increased by 86.4% in this period. Metro retirement and disability payments fell from 46.1% of total transfers in 1978 to 35.0% in 2007 and increased by 94.9% in this period. Retirement and disability payments will increase even more in the future as the baby boom generation moves into retirement. Government transfer payments are expected to make up an even larger share of nonmetro income as the population ages and baby boomers migrate to rural America (Cromartie and Nelson, 2009).

**Figure 1 Since 1978 Nonmetro Per Capita Government Transfer Payments to Individuals Have Been Rising Faster Than Metro, 1969-2007**



Source: Calculated by USDA, Economic Research Service using data from Bureau of Economic Analysis.

**Table 1****Personal Transfer Payments by Residence,  
1978-2007**

Transfer payments group	Nonmetro			Metro		
	Amount per capita	Share of transfers <sup>1</sup>	Change, 1978-2007	Amount per capita	Share of transfers <sup>1</sup>	Change, 1978-2007
	<i>Dollars</i>	<i>Percent</i>		<i>Dollars</i>	<i>Percent</i>	
	6,533	100	152.8	5,516	100	156.9
Retirement/disability	2,489	38.1	86.4	1,930	35	94.9
Social Security	2,387	36.5	95.2	1,816	32.9	98.9
Medical	2,836	43.4	480.5	2,489	45.1	411.7
Medicare	1,565	23.9	439.3	1,375	24.9	417.8
Medicaid/SCHIP	1,248	19.1	546.1	1,091	19.8	409
Military/CHAMPUS	23	0.4	339	23	0.4	253.5
Income maintenance	612	9.4	134.8	553	10	109.2
Supplemental Security Income	149	2.3	54.9	138	2.5	115.8
Family assistance	38	0.6	-48.5	67	1.2	-44.7
Food stamps	126	1.9	113	98	1.8	111.9
Other income maintenance <sup>2</sup>	298	4.6	876.3	250	4.5	664.3
Unemployment insurance	107	1.6	-8.5	111	2	4
Veterans benefits	185	2.8	-1.4	128	2.3	-4.7
Education and training assistance	52	0.8	122.8	59	1.1	144.2
Other transfer programs	15	0.2	115.2	8	0.1	682
Nonprofits that serve individuals	179	2.7	61	179	3.2	88.9

<sup>1</sup>Percentages are shown for selected programs.

<sup>2</sup>Includes expenditure for food under the WIC program, foster home care, refugee assistance, adoption assistance, earned income tax credits, and energy assistance.

Note: The 1978 estimates were adjusted to 2007 dollars using the CPI-U.

Source: Calculated by USDA, Economic Research Service using data from the Bureau of Economic Analysis.

**For More Information**

Cromartie, J. and Nelson, P. (2009). Baby Boom Migration Tilts Towards Rural America. *Amber Waves*. Vol. 7 (3), pp. 6-11. <http://www.ers.usda.gov/Amberwaves/September09/Features/BabyBoom.htm>

Jones, C., Parker, T., Ahearn, M., Mishra, A., and Variyam, J. (2009). *Health status and healthcare access of farm and rural populations*, EIB-57. Washington, D.C.: U.S. Department of Agriculture, Economic Research Service.

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