

378.782
D347
SP97-1


Agricultural Economics Staff Paper

**Health Care
and Rural Economic Development:
Historic Linkages
and Future Growth Potential**

**by
Sam Cordes
1997-#1**

WAITE LIBRARY
DEPT. OF APPLIED ECONOMICS
UNIVERSITY OF MINNESOTA
1994 BUFORD AVE. - 232 ClaOff
ST. PAUL, MN 55108-6040 U.S.A.

**Department of Agricultural Economics
Institute of Agriculture and Natural Resources**

 **University of Nebraska — Lincoln** 

**HEALTH CARE AND RURAL ECONOMIC DEVELOPMENT: HISTORIC LINKAGES
AND FUTURE GROWTH POTENTIAL**

**Sam M. Cordes
Professor of Agricultural Economics
University of Nebraska**

**Paper presented to National Rural Renaissance Task Force, Roslyn, Virginia
June 2, 1997**

As the subtitle of this paper indicates, my remarks will divide into two parts. I will first share with you the five important ways— or links— by which health care contributes to rural economic development. After establishing these historic linkages, I will then look to the future and indicate why I believe health care has the unrealized potential to be a growth industry for rural America.

FIVE LINKAGES TO RURAL ECONOMIC DEVELOPMENT

First, is the concept of human capital. This term was introduced several decades ago by Theodore Schultz at the University of Chicago, and was the basis for his winning of the Nobel Prize in economics. Schultz's studies of lesser developed economies made it clear that the then prevailing conventional wisdom that natural resources and physical infrastructure were the key to economic growth and development was fatally flawed. Instead, his work showed that the limiting factor was what he called human capital—capital that could be generated only through investments in the human resource such as education, nutrition, public health, and the like. Schultz's argument is as valid today as when it was first advanced, and its validity is not limited to lesser developed countries. Simply put, health care services, health education, wellness programs, drug and alcohol prevention and rehabilitation programs, and many other health care services, pay important economic dividends in terms of increased labor productivity, reduced absenteeism, etc.

Second, health care provision is quite labor intensive; and a considerable amount of the health care sector's expenditures are for wages and salaries. This gives rise to a second important linkage. Partly because of the need to meet payroll demands, health care providers— especially hospitals and nursing homes— must have available a considerable amount of cash and short-term investments. These holdings— at least if held in local financial institutions— become available as loanable funds to other local businesses and individuals who wish to invest in the local economy. For example, a Pennsylvania study determined that the hospitals in an eight-county nonmetropolitan area held over \$6 million in cash and short-term investments. Moreover, approximately 90 percent of these holdings were held in local financial institutions.¹

The third linkage has to do with the role of health services in attracting and/or retaining both residents and businesses. First, let's talk about people. In the same way that jobs attract people, people attract jobs. Retirees form a special group of residents whose spending and purchases can be an important source of local jobs. Many retirees also have substantial net worth. In short, retaining and/or attracting retirees is an important local economic development strategy, and its success may hinge in part on the local availability of adequate health care services.

Additionally, several studies have provided empirical evidence that public and community infrastructure, including health and medical services, plays a role in attracting and retaining businesses and jobs. To the extent health services are a factor, the specific reasons may be diverse and complex, including:

1. Their role in creating and/or sustaining a productive labor pool—again, human capital formation.
2. Their role in providing specific services to businesses, e.g., workplace screening and occupational health programs.
3. Their role in contributing to a community's overall quality of life, and helping to make the community an acceptable place of residence for businesses' local work force.

The next linkage has to do with local leadership capacity. Leadership development and capacity are critical elements in determining why some rural communities fare much better than others. Often, health care providers and workers represent an important part of the community's leadership structure and capacity. For example, in the Pennsylvania study noted earlier, almost one-half of the hospital administrators were involved in local development efforts, with the most common type of involvement tied to the work of the local chamber of commerce.

The fifth and final linkage—and probably the most important one—has to do with the employment impacts of the health care sector. Almost all of the rest of my remarks will be focusing on this dimension. The reality is that the health care sector—hospitals, nursing homes, physicians offices, etc.—is a major source of employment in rural America. In addition to this direct employment effect, additional employment is created as (a) the health services sector purchases goods and services from other businesses in the local economy and (b) when employees of the health care sector and the local businesses supplying goods and services to this sector engage in subsequent rounds of spending within the local economy. This is called the multiplier effect. We recently finished a study in Nebraska that divided our rural hospitals into four types.² Even our smallest category of hospitals—those with only 29 licensed beds on average—contributed 77 jobs (directly and through the multiplier effect to the rural economy). The largest category of rural hospitals—a category you may want to think of as a rural referral center contributed 1,332 jobs to the local economy. And, moving beyond the rural referral centers are those occasional situations in which the health care industry itself is the primary economic base for the entire community, and it is questionable as to whether or not the community would even exist if it were not for the health care industry. The Marshfield Clinic in rural Wisconsin and the Geisinger Medical Center in rural Pennsylvania would be notable cases in which the health care industry is the primary economic and employment base for an entire rural area/region.

THE UNREALIZED ECONOMIC POTENTIAL IN TODAY'S ENVIRONMENT

Despite the fact the health care sector is currently a major source of employment in rural America—directly employing more than 2 million people—it could and should be a much larger employer. With visionary leadership and action that potential can become a reality. Let me explain and elaborate.

Health care accounts for about 14% of the nation's economic activity—approximately \$1 trillion

annually. A disproportionately large share of this economic activity is concentrated in urban areas. And, here, we need to stop and appreciate the role of third-party payments—Medicare, Medicaid, and private health insurance payments—when we think about health care spending leakages to urban areas. To illustrate my point, contrast health care to symphony orchestras. Symphony orchestras are also concentrated in metropolitan areas, but they do not represent a missed opportunity for rural areas. Indeed, if a symphony were developed in a rural community and employed x-number of people, total local employment would probably not increase. Instead, we would likely see reduced employment associated with other components of the local entertainment industry—the movies, the taverns, and the local bowling alley—as some local residents shifted away from spending their money on these forms of entertainment and begin buying tickets to the symphony. But economic activity associated with the health care industry is different in several important respects from the symphony. First, unlike the symphony rural residents are paying for health care even when it is not available locally. These payments are in the form of taxes paid to generate a mega-billion dollar centralized pool of funding to support the Medicare and Medicaid programs—in addition to private insurance premiums that typically leave the local community to be pooled centrally, and then drawn upon when services are used. These centrally pooled dollars are not going to return to the local community if services are unavailable locally; or even when services are available locally if the local population chooses to go elsewhere to receive care. And, unlike the symphony which is a luxury, not a necessity, people will travel a considerable distance to receive health care. And finally, unlike the local symphony in which funds spent on it come at the expense of the rest of the local entertainment industry, health insurance premiums and taxes cannot be redirected or used to purchase some substitute product or service. Instead, they are earmarked solely for health care purchases, and if local services are not available or are not used to draw dollars from this central pool of funding, including the Medicare and Medicaid pools, these taxes and premiums are lost from the community forever.

These leakages from rural communities are of tremendous economic consequence. Probably, the most comprehensive study of leakages has been done in the Pacific Northwest. Specifically, data from 22 communities in Montana, Washington, Idaho, and Alaska found the median market share for the local hospital to be 38 percent, and 49 percent for physicians.³ In other words, 62 percent of the local residents went to some other community for hospital care and 51 percent went elsewhere for physician care. Of course not all of these leakages went to metropolitan areas, but there is little doubt that a considerable portion did.

But, what does all of this really mean in terms of dollars and cents, and employment and jobs? Let me give you three concrete but very different benchmarks. First, let's look at the national landscape. In 1995, average per capita expenditures on health care were \$3,621.⁴ And, we also know there are approximately 54 million persons living in nonmetropolitan areas, i.e., in counties that do not have a city of 50,000 population.⁵ What this means is that health care spending on behalf of the rural population is likely to be somewhere around \$195 billion—give or take a few billion dollars. We also know that some of this spending on behalf of the rural citizenry is not actually spent in rural communities. Just suppose there is as little as 10 percent that occurs in urban areas that could be retained in the rural economy, if the rural health delivery system were

strengthened and buttressed. Even with that modest percentage we are talking about nearly \$20 billion annually that could be infused into the rural economy. By way of reference, federal farm program payments in recent years have averaged a bit less than \$10 billion annually. This farm safety net is presumably going to be phased out, given the “Freedom to Farm Act.” One of the reasons for a phased approach is because a one-time shock of \$10 billion would have near-catastrophic consequences. Yes, \$10 billion represents big bucks for rural America. Then, isn’t it ironic— or at least inconsistent— to idly sit by and let another economic opportunity that is likely to be twice as significant slip through the fingers of the rural economy.

As a second benchmark, let’s look at the economic development potential from the standpoint of job creation. The accompanying table shows the 1990 distribution of population between metropolitan and nonmetropolitan areas to be 78 percent and 22 percent, respectively. 1996 data from the Current Population Survey indicate slightly more than 12 million persons were employed nationally in the health care sector.⁶ As a rough but conservative approximation, let us assume that the nonmetropolitan population requires about 22 percent of the health care work force to take care of its health care needs. Given the higher proportion of both elderly and low income persons in nonmetropolitan areas (in comparison to metropolitan areas), one could argue that the 22 percent approximation is too low. And, consistent with this argument are national data indicate per capita utilization or consumption of health care services is higher for nonmetropolitan residents than for metropolitan residents. However, with the conservative estimate of 22 percent one would expect about 2,685,000 health care jobs to be associated with caring for the nonmetropolitan population. However, only 2,196,000 jobs are found in the health care sector in nonmetropolitan America. This suggests that nearly 500,000 jobs are associated with providing health care to non-metropolitan residents who receive their care in metropolitan areas. Surely, at least some of these workers are associated with services and care that could be legitimately and efficiently provided in nonmetropolitan America. Again, let’s be conservative and suggest that only 40 percent of this “job deficit” could be rationalized in the sense of providing services to nonmetropolitan people in nonmetropolitan areas. Even in this case, we are talking about a potential job creation impact of about 200,000 high-paying, high-status jobs. Using a conservative employment impact multiplier of 1.5, the total job creation potential is 300,000 jobs. Not an insignificant impact!

Metro-Nonmetro Distribution of Population and Health Sector Employment

	Population Distribution (1990)	(1) Health Sector Employment Allocated in Proportion to Population	(2) Actual Health Sector Employment (1996)	Difference (Col. 2 - Col. 1)
Metro	78%	9,518,000 (78%)	10,007,000 (82%)	+ 489,000
Nonmetro	22%	2,685,000 (22%)	2,196,000 (18%)	-489,000
Total	100%	12,203,000	12,203,000	0

As a third benchmark, let me provide two real-world examples to localize this information. A recent study published in the Journal of Rural Health focused on Uinta county, Wyoming.⁷ As it turns out, this rural county in southwestern Wyoming has some of its obstetric services provided by an obstetrician from a metropolitan area—namely Ogden, Utah—who travels to Uinta county on a regular basis to provide prenatal clinics, etc. However, this obstetrician does not perform actual deliveries in Uinta county, and a large number of deliveries by Uinta county women occur in Ogden. It is estimated that the total economic impact associated with this leakage to Ogden, is the loss of 22 jobs to this rural Wyoming county. Unfortunately, attracting an obstetrician to Uinta county in order to create 22 badly needed and relatively high paying jobs is not the usual part of most rural communities' economic development strategy. However, there are some communities that are the exception to this rule. One of these is Harlan County, Kentucky. In this case, a broad-based, county-wide effort that involved dozens of citizens precipitated a variety of changes in many aspects of the local health care system. As a consequence, leakages associated with Harlan County residents going elsewhere for care were greatly reduced. The Appalachian Regional Health Care Hospital payroll rose from 317 to 392 people, and 52 other new health related jobs were created. All totaled, at least \$4 million were added to the economy of this chronically distressed Appalachian county.⁸

THE UNREALIZED ECONOMIC POTENTIAL IN TOMORROW'S ENVIRONMENT

I hope I have made it clear that at the current time and within the current health system structure there are literally thousands of unrealized jobs that are not in rural America that could and should be there. But, what about the future? At first blush, what I am about to say may strike some as heresy, but it is my contention that the future dynamics are extremely favorable relative to rural economic development activities associated with the health sector. The problem is to get rural leaders and others to fully understand and appreciate this tremendous economic development opportunity, and to capitalize on it.

Perhaps the most important thing to realize is that health care is a growth industry. Over one million jobs were added to the health care sector between 1991 and 1995.⁹ With all of the discussion about Medicare and Medicaid cuts and the cost cutting attributed to HMO's and managed care it is easy to be misled. These so called "cuts" are really not cuts at all. Instead, they are attempts to reduce the rate of growth in the health care sector. However, the reality is that the health care sector has been growing and will continue to grow—largely due to the growth in population, (yes, contrary to another myth the rural population is also growing). Equally important is the fact the elderly population will continue to grow for the foreseeable future, and will accelerate when today's baby boomers begin to gray in the early part of the next century. In essence, the size of the health care pie will grow through the sheer force of demographics—more people in total, and with an increase in the elderly cohort.

If there is one premise we all know from Economic Development 101 it is that economic development strategies should target and exploit the potential and opportunities of growth industries, not industries that are mature or are in the declining stage. The health care sector fits that target criterion exceedingly well. Not only is health care a growth industry, it is also a rapidly changing industry and many of these changes have the potential for boding well for rural areas. What this means is that the larger total pie that is going to exist anyway can conceivably be re-divided or reconfigured to the additional benefit of rural America. But, it will require both vision and concerted action.

Let me spend my final few minutes on the changes underway in the health care industry and what I see as their possible positive implications for rural America. I will begin with managed care. I happen to believe the managed care movement has the potential for strengthening the local health care sector and economy. First, recall that the current pattern of distribution of hospitals and services was developed in an era or environment of cost-plus reimbursement. As a consequence there were no real restraints on provider payments, and those payments accelerated at a particularly rapid rate in urban areas. Today, the cost of caring for a Medicare beneficiary in the Bronx is about three times that of caring for a beneficiary in many rural counties in the Midwest. Cost-sensitive managers of managed care are likely to recognize and respond to this urban/rural differential by shifting as much provision of care as possible to lower cost areas. Second, and not unrelated to the prior point, primary care—not specialty care—is at the core of an efficient managed care system. It is primary care where rural areas have always been able to hold their own. Specifically, there are few rural areas where primary care services, ancillary services, nursing home care, and limited service hospitals cannot be provided efficiently and effectively. Third, we can expect some growth in specialty service availability in rural areas for several reasons; including the fact that most kinds of medical referral specialists are in abundant and increasing supply, and in some cases referral specialists are being forced out of practice in some metropolitan areas by managed care and are relocating in rural areas. Carried to the extreme, one could even envision pockets of unique specialty care being provided in a few selected rural areas— a minor and perhaps unrealistic point but one that may be worth a small amount of pondering. For example, the Hazelden Clinic in rural Minnesota— the world renowned substance abuse program for the rich and the famous— is effectively a major exporter of a service and probably the major industry in its locale.

All things considered, it is my prediction that the high intensity, high cost care which predominates in metropolitan areas will be carefully scrutinized and surpluses in this type of care will be reduced. Lower intensity care of the sort that currently predominates in rural communities will be favorably positioned in our changing health care system. It should also be noted that the growth of managed care—especially HMO's—

often brings with it a reduction or elimination of deductibles and co-payments for the insured population, including those insured through Medicare. This releases new spending power in the local economy for other goods and services.

Another important factor on the horizon has to do with the fact telehealth or telemedicine technologies and opportunities appear to be on a new threshold. This has the potential for keeping more patients in rural hospitals and clinics—and therefore more health care spending in rural areas than was previously the case.

Finally, some “rural friendly” policy shifts, including payment reform are underway. For example, Congress seems poised to reduce substantially the current rural-urban differential in the Average Adjusted Per Capita Cost (AAPCC) payment for Medicare beneficiaries. Currently, this monthly rate varies from a low of \$221 in Arthur and Banner counties, Nebraska to \$767 for Staten Island, New York.¹⁰ In fact, just last week RUPRI presented a briefing on the impact and implications of four legislative proposals designed to reduce this differential.¹¹ Clearly, an upward adjustment in Medicare payments to rural providers could conceivably pump several billion new dollars into the rural economy. Additionally, other congressional action may pave the way for more flexibility in reimbursing limited service hospitals and telemedicine delivery.

CONCLUSION

In sum, many billions of dollars of unrealized economic activity and many thousands of health service industry jobs are currently being lost by rural America. Perhaps more importantly, the future growth potential of the health care sector for rural America does not seem to be on the screen for rural advocates and policy makers. This is a source of considerable concern and puzzlement as I stand by and see national movements and tremendous visibility created for other initiatives to bring jobs and additional economic opportunities to rural America, e.g., value-added agriculture, branded products, international niche markets, aquaculture, industrial uses for agricultural commodities, ranch recreation, ecotourism, home-based business development, etc. These are all important and desirable components of an aggressive and diversified economic development portfolio for rural America. However, it is not at all clear to me that any of these approaches individually, and perhaps even collectively, has the economic development potential and the inherent advantages for rural America as does the health care industry. In the case of health care we do not need to develop new products, we do not need to worry about accessing overseas markets, we do not need to build an industrial park or prostitute ourselves by providing tax concessions to some new company, we do not need to worry about serious negative environmental impacts. And, the health care industry already has a tremendous presence in rural America. It is simply a matter of building upon it and capturing the tremendous economic potential that is currently going unrealized, and capitalizing on a growing industry that is restructuring in a way that is very consistent with the historic strengths of the rural delivery system.

What is needed is a vision and a movement to support health care as a rural growth industry in the same way that a comparable vision and movement has been mobilized in the case of value-added agriculture and any one of a number of other situations. My closing challenge to those of you in this room is to initiate and lead such a movement.

1. Erickson, R.A., N.I. Gavin, and S.M. Cordes. The Economic Impacts of Pennsylvania's Hospitals. College Park: The Pennsylvania State University, Center for Research, College of Business Administration, 1984.
2. Cordes, S., J. Hoffman, C. Lamphear, and E. Van der Sluis. The Current Economic Impact of Nebraska's Rural Hospitals. Cooperative Extension Division, University of Nebraska. 1996.
3. Amundson, Bruce. "Myth and Reality in the Rural Health Service Crisis: Facing Up to Community Responsibilities." The Journal of Rural Health. 9(3) Summer 1993: 176-187.
4. Levit, Katharine R., Helen C. Lazenby, Bradley R. Braden, Cathy A. Cowan, Patricia A. McDonnell, Lekha Sivarajan, Jean M. Stiller, Darleen K. Won, Carolyn S. Donham, Anna M. Long, and Madie W. Stewart. "National Health Expenditures, 1995." Health Care Financing Review. 18 (1) Fall 1996: 175-214.
5. Rural Policy Research Institute (RUPRI) estimates, from personal correspondence with Glenn Nelson. 1997.
6. Unpublished analysis by USDA Economic Research Service, based on county-level data from the 1990 U.S. Census and annual averages from the 1996 monthly Current Population Survey (CPS).
7. Thompson, J.G. and J. Harding. "Economic Effects of the Outmigration of Obstetric Services in a Rural County." The Journal of Rural Health. 12 (2) Spring 1996: 100-109.
8. Unpublished data generated by the University of Kentucky Center for Rural Health Community Initiated Decision Making Project.
9. S.K. Heffler, C.S. Donham, D.K. Won and A.L. Sensenig. "Hospital, Employment, and Price Indicators for the Health Care Industry: Fourth Quarter 1995 and Annual Data for 1987-95." Health Care Financing Review. 17 (4) Summer 1996: 217-256. NOTE: Data exclude employment in hospitals, clinics, and other health-related establishments run by government.
10. Rich, Spencer. "Medicare Cuts in HMO Fees Under Review." The Washington Post. January 12, 1997.
11. Coburn A., S. Cordes, R. Crittenden, J.P. Hart, T.D. McBride, K. Mueller, and W. Myers. The Rural Implications of Medicare AAPCC Capitation Payment Changes: Background Assessment and Simulation Results of Key Legislative Proposals. Congressional Briefing Document Prepared for The Senate Rural Health Caucus and the House Rural Health Care Coalition. Rural Policy Research Institute, University of Missouri. May 29, 1997.