# THE EFFECT OF MARKET REFORM ON RURAL PUBLIC HEALTH DEPARTMENTS

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# THE EFFECT OF MARKET REFORM ON RURAL PUBLIC HEALTH DEPARTMENTS

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## EXECUTIVE SUMMARY

This study seeks to determine how rural health departments and the populations they serve have been affected by recent health care system changes, especially Medicaid managed care. To this end, in-person interviews of county public health department directors were conducted in four rural public health departments in each of five states (Georgia, Missouri, North Carolina, Oregon, and Wisconsin) for a total of 20 case studies. Although few of the case study sites had experienced significant commercial managed care penetration, all were in states with some form of Medicaid managed care that applied to rural populations.

There have been substantial changes in the quantity of well-child services provided in these rural health departments in the nineteen-nineties. Thirteen health departments decreased the number of well-child services provided and four, all in states with fully capitated Medicaid managed care programs, discontinued these services altogether. The decrease or cessation of well-child service provision was attributed to three factors: 1) a state requirement that referral from a Primary Care Provider was necessary in order for health departments to receive reimbursement; 2) the increased competition for Medicaid children from private providers; and 3) loss of state funds to pay for these services, particularly for the uninsured. Relationships with local private physicians affected health departments' ability to obtain contracts for services covered under Medicaid managed care plans, and to receive referrals for services that were carved out or covered under direct access provisions.

With the move to Medicaid managed care, rural Medicaid beneficiaries who were previously served by health departments are receiving more of their care from the private sector. Many of the health department directors are not convinced that this care is adequate. Health department informants explained that children did not always get unclothed physicals, that private physicians were unable to spend as much time with children as health department staff had, that no one is tracking children, and that certain screening tests historically provided in the health department were not being performed.

The impact of Medicaid managed care on the financial status of rural health departments seemed to depend on whether there was an overall loss of Medicaid funds, the ability to generate new revenue from other sources and, in the short term, the size of financial reserves from previous years. Fourteen of the twenty rural health departments we visited lost Medicaid revenue in recent years, usually due to decreases in Early and Periodic Screening, Diagnosis and Treatment fees (Medicaid well-child services), and these losses were often quite substantial. Among the health departments that were experiencing or expected to experience financial pressure, directors responded by downsizing their staff (usually through attrition), cross-training staff to provide other types of services, increasing programs in Medicaid-reimbursed areas that were carved out from managed care, or contracting services to other organizations. Although none of the health departments we visited appeared to be in danger of closing, and some of them were doing quite well, what had changed for most organizations was their income security. Several directors mentioned that if revenues continue to decline and new resources are not available, their ability to provide care to the uninsured may be compromised.

Rural health departments in three states are increasing the emphasis on population-based services such as community outreach and education programs by redirecting staff resources from clinical services. However, in some states, there was a perception among the health department directors that income from direct patient care services had in some part previously supported traditional public health functions, and that loss of this income would compromise provision of population-based services in the future.

The study raises the issue of how health departments will serve the assurance role for the uninsured. Most of the health departments we visited provided some services to the uninsured, but they were typically limited to certain populations (such as children) or services (such mammograms or pap smears, family planning or hyper-

tension screenings). All that was generally available to adult males was limited help in finding a private provider, and the availability of services in the community for the uninsured without extensive travel, particularly for adults, appeared to be inadequate. For health departments to truly function as a provider of last resort, many would need to expand their clinical services for the uninsured, but this could not occur without an infusion of government funds.

For the most fragile populations, the poor and less educated, the changes wrought by market reforms and the move to the private sector has not decreased the fragmentation of the health care system. The concept of a medical home works well for individuals whose health concerns are completely addressed by personal care services. For many poor rural populations, public health functions represent an important facet of comprehensive health services. While coordination between public health departments and private providers, and financial support for public health functions would be desirable, we visited very few communities where private providers were taking advantage of the new climate to develop public-private partnerships. Further study is necessary to investigate the effects of Medicaid managed care on quality and comprehensiveness of medical care for children, and to formulate ways to facilitate collaboration between public and private sectors to improve the health of communities.

## INTRODUCTION

The U.S. health care system is currently undergoing a major transformation. Efforts to contain costs have resulted in a number of market reforms including Medicare payment reform, consolidation of health systems, and a shift away from fee-for-service-reimbursement systems towards managed care. While these changes may be more common in urban areas, many rural communities are experiencing similar trends (Rural Health Research Center, 1997), and, while still lagging behind urban areas, Medicaid managed care programs are now operating in over half of all rural counties (Slifkin et al., 1998).

The move to managed care in the Medicaid system poses a particular risk to public health departments that have focused on the provision of direct patient care, as they have historically provided many of these services to Medicaid-eligible populations (Martinez and Closter, 1998). However, the impact of Medicaid managed care on local public health departments varies, depending on the type of managed care program and the array of services offered by the health department (Hurley, 1997). The role of public health departments, as defined by the Institute of Medicine (1988), is to fulfill the core functions of assessment (the collection and analysis of information on the state of the public's health and health needs), policy development, and assurance. The assurance function requires that health departments ascertain that needed personal and community health care services are available to the community, and, if the services are not there, that the health department provide these services. It is within the assurance role that many public health departments provide both population-based services (such as community outreach and education programs, inspections, and environmental activities) and personal care services such as well-child check-ups, prenatal case management, and sometimes primary care.

With the advent of managed care arrangements, public health departments that have historically provided some clinical services appear to be more at risk than other safety net providers, as their primary care services are typically less comprehensive and their ability to negotiate with managed care organizations are hampered by bureaucracy (Felt-Lisk et al., 1998, Lipson and Naierman, 1996). In a study that examined the impact of Medicaid managed care in rural communities in ten states, local health departments in almost all of the states reported a sharp decrease in the provision of well-child services (Felt-Lisk et al., 1998). In three of the states, respondents noted that the local health departments had already stopped, or were planning to stop providing any clinical services. The changes seen in these rural areas parallel changes in other communities across the country (Martinez and

Closter, 1998; Wall, 1998). The impact of these changes in any particular community will depend on whether there are other private providers willing to assume care for the patients who historically received care from the health department. Lipson and Naierman (1996) noted that ten percent of local health departments, especially those in rural areas, reported that they were sole providers of care to the medically indigent; thus rural communities may be adversely affected if rural public health departments cease providing clinical services. Health departments have also reportedly used Medicaid revenues to partially cross-subsidize population-oriented services, thereby raising concern that the loss of Medicaid revenues may also affect the ability of local health departments to meet their core public health responsibilities (Wall, 1998).

This study seeks to determine how rural health departments have responded to and been affected by recent health care system changes such as Medicaid managed care, commercial managed care, market restructuring and Medicare reimbursement changes. To the extent that rural health departments have changed, the effect of this change on the rural populations that these providers serve is assessed.

## METHODS

Site visits were made to four rural public health departments in each of five states (Georgia, Missouri, North Carolina, Oregon, and Wisconsin) for a total of 20 case studies. We sought to include states that were diverse regarding: 1) whether there has been an increase or decrease in primary care provision by health departments, 2) the type of Medicaid managed care programs (primary care case management or full risk), and 3) geographic diversity. State health department characteristics were determined through analysis of survey data from the National Association of City and County Health Officers. Although we made every effort to pick states for case study that reflect broader trends across the rural US, as with most qualitative case studies, we are somewhat limited in our ability to generalize due to the small number of sites visited.

Our choice of sites within states was directed by public health leaders within the state. At each site, in-person interviews of county public health department directors were conducted using semi-structured interview protocols (in two cases, the interviews were conducted over the telephone). In many of the interviews, the directors had invited other staff members, most often the senior nurse, to participate. Each site visit lasted anywhere from one and one half to three hours, with follow-up by telephone to clarify unclear or conflicting information.

Public health departments were defined as rural if the state personnel we initially contacted identified the health department as being located in a rural area. Of the 20 sites we visited, all but one were in nonmetropolitan counties, and the community in the metropolitan county we visited had many of the characteristics of other rural areas, such as provider shortages, long distances to certain types of care, and low population density. Among the nonmetropolitan counties, 11 were adjacent to MSAs and 8 were not. Two of the public health departments were part of larger human service agencies, and one of these was part of a non-governmental, non-profit agency. Another public health department was part of a health district and not directly part of county government. Eighteen of the health departments were part of county government, although in one state, many of the decisions were made at a district level.

The characteristics of the twenty counties in which the health departments are located vary substantially. County population ranges from 5,385 to 66,497. The percent of county residents that are nonwhite ranges from 1.1% to 54.1%. On average, 16.1% of county residents live in poverty, with a minimum of 6.2% and a maximum of 25.7%.[1] Two of the counties studied were designated as Health Professional Shortage Areas (HPSAs) in 1998 and 12 had parts of the county designated as HPSAs.

[1] Data on county characteristics are from the Area Resource File, 1998.

Few of the case study sites had, by the time of the contact, experienced significant commercial managed care penetration. However, all of the communities were covered by some form of Medicaid managed care. Three of the case study states (Missouri, Oregon, and Wisconsin) enrolled Medicaid recipients into HMOs or other fully capitated managed care organizations. Georgia and North Carolina enrolled their rural populations in Primary Care Case Management (PCCM) programs. Under PCCM programs, primary care providers are paid a small monthly fee to manage the patients' care, but continue to be paid on a fee-for-service basis for the care provided.

Each state had slightly different policies about what services were covered under their Medicaid managed care system, and how Medicaid patients could access public health services. For example, most of the states required patients to obtain a referral from a primary care provider before obtaining services from a public health department, specialist or for non-emergency hospitalizations. There were two general exceptions to this rule: carve-outs and direct access provisions. All the states "carved-out" certain services from their managed care program—typically some case management or wrap-around services. Managed care payments to primary care providers did not include the cost of these services. Because these services were not part of the managed care system, recipients could continue to obtain these services from any Medicaid provider and the state would reimburse on a fee-for-service basis. Some states also allowed Medicaid recipients to directly access public health departments for certain services, such as family planning or diagnosis and treatment of sexually transmitted diseases (STDs), whether or not these services were otherwise covered under the state's managed care payments to providers. In North Carolina, for example, recipients could go to the public health department for any service offered, without first obtaining a referral from the primary care provider.

## FINDINGS

***Direct patient care services***. Most of the rural public health departments provide immunizations and well-child screenings or Early and Periodic Screening, Diagnosis and Treatment (EPSDT) services. The majority of health departments also offer prenatal case management, family planning, STD/HIV services, and certain clinical cancer screening programs. Beyond these services there was no consistency across health departments; a few offered prenatal care, adult primary care services, and/or diabetes and hypertension clinics.

There have been substantial changes in the quantity of well-child services provided in rural public health departments in the nineties. Among the twenty health departments, only one never had provided these services. Before the implementation of Medicaid managed care, most of the departments had targeted their well-child services to the Medicaid populations, although some also offered services to uninsured children. Thirteen health departments reported a decrease in the number of well-child services provided, and four health departments, all in states with fully capitated Medicaid managed care programs, had discontinued these services altogether. The decrease or cessation of well-child service provision was attributed to three factors: 1) whether the state chose to require that referral from a Primary Care Provider (PCP) was necessary in order for the health department to receive reimbursement; 2) the increased competition for Medicaid children from private providers; and 3) loss of state funds to pay for these services, particularly to the uninsured. In most states, health departments can only receive reimbursement for EPSDT services from Medicaid if the child is referred to the health department by his or her PCP. In many communities, we heard that the private providers were reluctant to give referrals, thus reducing the number of children seen in the health departments. However, the number of Medicaid-eligible children seen in the health departments also decreased in three of the North Carolina counties where patients are allowed to access health department services without a refer-

ral. This decline was explained by the increased availability of primary care providers willing to treat Medicaid patients. Many families chose to obtain well-child services from private physicians when given the chance. Finally, in two health departments, the decrease in well-child services, especially for the uninsured, appeared to be due to a reduction in state funding.

While most sites reported a decrease in the quantity of EPSDT services provided, one health department had actually increased the number of EPSDT services. This particular department chose to respond to the changing market by increasing all clinical services. Another health department that offers comprehensive primary care increased the provision of well child services to commercially insured and uninsured children. This department also anticipates an increase in the number of EPSDT services, as it recently became a primary care provider under one of the participating Medicaid HMOs. In addition, a third health department reported an overall increase in the number of well-child visits provided because of the large increase in services to the uninsured, even as the number of services to Medicaid-eligible children decreased.

None of the health departments reported significant changes in the provision of well-child services to the children enrolled in State Children's Health Insurance Programs (SCHIP). A SCHIP program had not yet been implemented in one state we visited, and in the others, the program was either too new, or newly-eligible children were opting to receive their care through private physicians, following the same trends as Medicaid-eligible children. We did hear in some places that the shift of many children from uninsured status to coverage under Medicaid expansions or other SCHIP programs accounts for some of the decline in well-child visits, as these children were now being seen in the private sector. In one site, we heard that the health department was serving the newly eligible CHIP children, but had not yet learned how to bill for the services. In this state, the SCHIP program is administered through a private insurance carrier, and the health department lacked the infrastructure to bill private insurance.

Immunizations have been historically provided as part of EPSDT services, but many of the health departments that have decreased or stopped providing well-child care are still providing immunizations. In some communities health departments experienced a decrease in the number of immunizations they provided because of the move of children to the private sector. However, in other areas, private physicians did not routinely provide immunizations or the health department made these services more accessible, so the health department was able to maintain the same volume of services.

Prenatal case management (PCM) services were historically provided by eighteen of the health departments. The majority of health departments did not report a change in the levels of PCM provided because these services were carved out of the Medicaid managed care plans in all but one state. In the one state that required referrals from private physicians to access these services, all the health departments who had provided this service stopped, because they could not get contracts with the Medicaid managed care organizations or because they experienced a sharp decline in referrals. In one state where referrals were not required, several health departments intentionally increased their PCM visits in an effort to offset the revenue lost by decreases in EPDST visits.

The experience with family planning service provision has also been mixed. Services were increased in rural health departments in two states (Georgia and Oregon) where family planning was carved out of Medicaid managed care. In one of these states, the health departments expected large increases in the provision of family planning services as the state recently expanded Medicaid eligibility for these services. In North Carolina and Missouri, some health departments saw decreases in their patient load despite a carve-out for these services. The directors in these departments felt that since the implementation of Medicaid managed care, women were going to private physicians for these services.

***Factors that drive how health departments changed personal care service provision.*** There were a number of factors that appeared to influ-

ence how a particular rural health department changed personal care service provision in response to market changes, particularly the implementation of Medicaid managed care. Carve-outs and direct access provisions appeared to play an important role in service provision changes. Only four of the health departments we visited were actually primary care providers in Medicaid managed care plans. Among those who were not, many choose to increase the emphasis they placed on services that were carved out and therefore could potentially increase the organization's revenue. This strategy was not always successful though; in some places health department administrators believed that the private sector physicians were encouraging their patients to receive all their services in the private sector, and even though patients could go to the health department, they were choosing not to. Relationships with local private physicians also affected the ability of the health department to obtain contracts for services covered under Medicaid managed care plans, and to receive referrals for services that were carved out or covered under direct access provisions. In some areas there appeared to be strong working relationships and collaboration between the health department and private providers while in other communities there did not appear to be any communication between the health department and the private sector.

The extent to which the health department director is proactive seemed to influence how the organization responded to and was affected by Medicaid managed care. In some organizations, directors anticipated how the move to managed care would affect the health department, and planned strategically to insure continued control over the types and volumes of services provided, either by making the changes necessary to become a primary care provider or by securing contracts with private physicians. Others were proactive by shifting their focus to population-based services and securing the funding necessary to provide these services. Health departments whose directors were more reactive, and responded to changes in the environment while and after they happened, gave the appearance of being much more vulnerable to change. Often the directors of these health departments were constrained in their ability to act proactively because of factors beyond their control such as a poor county economy or lack of decision-making authority.

Rural health departments appeared to be better positioned to retain their direct patient care visits in communities that had provider shortages. However, the extent to which this actually occurred seemed also to depend on the relationship between local physicians and the health department. In one community with good relationships, the health department and the physicians are negotiating directly with each other on how best to cover the needs of the community while insuring the viability of all providers. In another community with severe provider shortages, the private physicians in the county asked the director of the health department, a family nurse practitioner, to become a primary care provider in the county's Medicaid HMO. They agreed to help with after-hours call coverage and hospital visitations. In contrast, in one community where the private physicians have more work than they can handle, there has been no communication between the physicians and the health department as to a potential role for the health department.

The level at which the decision on how to respond to health system changes is made appeared to be important. In one state, the decision as to whether or not health departments should attempt to become Medicaid primary care providers was made at a district level. Also, statewide strategic planning regarding the role of public health in general, and a refocusing on "core functions", appeared to affect decisions on how to respond to health system changes.

***Other effects of market reform.*** In general, except for the implementation of Medicaid managed care, rural health departments appear to be fairly insulated from other types of market reform. The market penetration of managed care is minimal in most of the counties we visited, although three respondents did tell us it was increasing.

The directors of six health departments (in three states) out of the seven health departments

that provide home health services did tell us that they have seen or are anticipating marked decreases in home health revenues due to changes in the Medicare home health reimbursement system. For several of these organizations, home health represents a major source of revenue and has subsidized infrastructure improvements in the past. For others, home health has gone from being a profitable service to one that is now losing money, and concern was voiced as to whether the program could continue to be offered.

The rural counties we visited are just beginning (if at all) to see other forms of market restructuring. Although in twelve counties no restructuring was mentioned, in other sites either physicians were affiliating with commercial managed care organizations, or hospitals were buying out private physician practices, creating networks, and opening clinics.

***Financial status of rural health departments.*** Overall, the impact of market reforms on the financial status of rural health departments seemed to depend on whether or not there was an overall loss of Medicaid funds, combined with the ability of the health department to generate new revenue from other sources. Fourteen of the twenty rural health departments we visited lost Medicaid revenue in recent years, usually due to decreases in EPSDT revenue. Depending on the initial size of the program, these losses could be quite substantial: One health department had EPDST revenue that was almost $200,000 less in Fiscal Year 1999 as compared with Fiscal Year 1994. Although fewer health departments reported losses from changes in home health (primarily because it was less common for health departments to offer these services), where there were losses, they were equally large. Among the organizations reporting loss of Medicaid revenue, five were able to offset, or more than offset their Medicaid losses through increases in state revenue for new or expanded programs, local revenue, non-Medicaid family planning fees, and other programs such as WIC and hospice. Other ways health departments increased revenue included raising charges to paying clients, contracting out staff to other organizations, and seeking grants from private corporations and foundations.

A number of health departments tried to minimize losses from reduced EPDST revenues by increasing their programs in Medicaid-reimbursed areas that were carved-out from Medicaid managed care. Typically, programs in prenatal case management and family planning were expanded, but these expansions only produced enough income to offset EPSDT losses in two cases.

In some areas Medicaid managed care programs are still relatively new, so it may be too early to assess their full impact. Many of the health departments set aside extra revenue to carry over into subsequent years. A number of the organizations we visited were still using carry-over funds to maintain staffing levels, and a number of directors voiced concern as to how they will support staff at current levels when all carry-over funds are depleted.

***How perceived financial pressures affected organizational structures***. Among the health departments that were experiencing or expected to experience financial pressure from the decrease in personal care service provision, directors responded in several ways. Although decreases in the quantity of personal care services provided meant that fewer staff resources were needed, all the directors were committed to their staff, and tried to find ways to avoid having to eliminate staff positions. In the seven health departments that have lost staff, directors generally tried to naturally downsize by not filling vacant positions when staff left, but layoffs occurred in four organizations. A strategy used to maintain staffing levels was to cross-train staff to provide other types of services, although we heard that it was difficult for individuals who had always been involved in clinical service provision to change their focus to more population-based services. These services are not generally revenue producing, so often other sources of revenue needed to be found to support staffing levels.

Some health departments have found creative ways to organize and deliver care in the face of Medicaid managed care and competitive market forces entering their communities. Two health departments, perceiving a lack of providers in the county, began to function like a private practice in order to compete for Medicaid enrollees in a

PCCM program. In one county, the county mental health agency facilitated the consolidation of several county agencies into a larger human services agency, in order to prevent either privatization or regionalization of county-level mental health services. Later, this same agency converted to a non-profit to be able to react more quickly to changes in the market.

***How have changes in response to Medicaid managed care affected rural health departments' ability to provide population-based services?*** There are a number of ways that the decreased emphasis on personal care service provision can affect the provision of population-based services. If alternative revenue sources can be found, staff resources previously used for clinical service provision can be redirected to population based services. However, if the revenue from clinical services had been subsidizing population based-services, without an alternative revenue source health departments may have to decrease the amount of population-based services provided.

We saw evidence of both trends. Rural health departments in three states are increasing the emphasis on population-based services by redirecting staff resources that are no longer needed in clinical services to population-based services. The extent to which this shift is a result of Medicaid managed care implementation is unclear. In Missouri and Oregon, population-based services were increased because of an increase in state funding for these activities. In Georgia, the public health steering committee decided to move public health back to population-based services. In this state, the increased focus on population-based services is being accomplished using staff time freed by the drop in EPSDT service provision, but concern was voiced as to how staff would continued to be supported over time, as carry-over funds from previous years are being depleted.

In some states, there was a perception among the health department directors that income from direct patient care services had previously partially supported traditional public health functions, and that loss of this income would compromise provision of these services. Although we were able to document the loss of overall revenue, we could not get detailed information on expenditures broken out by program type that would have allowed verification of this perception. Most traditional public health activities are not income producing, and for many health departments the personal care revenues made up a substantial part of their budgets, so there may be some truth to this perception. The cross-subsidization of programs, and the lack of support for population based programs that will result from decreased clinical revenues, was a particular concern for most of the health departments visited in North Carolina. Directors said they had used clinical revenues for such diverse expenses as a new animal shelter, computer expansion, outreach activities, building maintenance and upgrade, and health education. In this state, although there has been a decrease in direct patient care service revenues in some health departments, there has not been an increase in the provision of population based services. Also, Medicaid revenue from clinical services was used to support the provision of services to the uninsured, and concern was voiced that loss of direct service revenue could affect the health department's ability to care for the uninsured.

***Where direct patient care services in the health departments have decreased, what happens to the Medicaid population?*** With the move to Medicaid managed care, rural Medicaid beneficiaries who were previously served by health departments appear to be receiving more and more of their care from the private sector. While at some health departments Medicaid enrollees still receive some services such as EPSDT, immunizations, family planning services, or PCM, all the directors we spoke with felt that a greater proportion of the Medicaid population in their counties now have medical homes in the private sector. The one exception to this trend are the two health departments that chose to respond to market changes by increasing primary care services. In these health departments, the number of Medicaid enrollees coming to the health department appears to be increasing.

Directors of 12 health departments felt that private providers were more willing to take

Medicaid patients than in the past, and in at least one county new physician practices were being established, in part because of the Medicaid revenue potential. Although this trend was often attributed to the implementation of Medicaid managed care, in at least two instances the willingness of the private sector to accept Medicaid pre-dates managed care, and was the result of enhanced Medicaid reimbursements. Also, some respondents felt that decreases in reimbursement for other payor sources is making Medicaid patients more attractive to providers.

Respondents from rural health departments in four states expressed concern that the move to the private sector had negatively affected the content and number of well child visits and/or immunization coverage rates. Health department informants explained that children did not always get unclothed physicals, private physicians were unable to spend as much time with children as health department staff could, and certain screening tests historically provided in the health department and mandated by federal policy for children with Medicaid (such as lead screening) were not being performed. Five directors specifically mentioned a perception that with the move to the private sector, no one is tracking whether children receive age-appropriate care, a role the health department fulfilled in the past. Directors felt that private physicians did not have the experience or time to track children, and they wanted to see greater accountability for preventive services by managed care companies, as the lack of monitoring raised concerns about lower quality. Several respondents perceived that the states were not auditing physician practices as stringently or regularly as they audited the health departments in order to assure that EPSDT requirements were being met.

***Where do the rural uninsured go for care and how has the availability of care changed?*** Local rural public health departments that we visited do not appear to play a major role in providing personal care services to the uninsured. Although the majority of health departments offer some sort of personal care services, these are often limited in scope, and offered to limited populations (for example, certain cancer screens for women, or immunizations or well-child services for children). When uninsured adults with acute illness present to the health departments, the staff attempts to triage patients to other providers. We often heard that local private physicians would accept only limited numbers of patients who could not pay for services. In some counties, uninsured individuals were reported to travel as far as 85 miles to receive care, and six health department directors felt that many uninsured adults simply did not seek or receive care at all, unless it became an emergency, and then they ended up in a hospital's emergency room. In one county, the acquisition of two local practices by a hospital has tightened the care available to the uninsured, as the physicians are no longer able to make their own decisions regarding the provision of uncompensated care.

The health department directors did not feel that the provision of care to the uninsured had changed very much as a result of market reforms, except that the numbers of uninsured children are decreasing due to SCHIP. However, several directors mentioned that if revenues continue to decline and new resources are not available, their ability to provide care to the uninsured might be compromised.

***Rural Issues***. We asked the health department directors if they felt there were any advantages or disadvantages to being located in a rural area, given the market reforms that are currently occurring. Seven directors felt that being in a small community resulted in closer working relationships between the health department and other providers. Providers may be more acutely aware of the role of the health department in providing services, such as STD and HIV prevention and treatment, that they do not want to handle themselves, creating an incentive for private providers to work with the local health departments to insure survival. Similarly, some directors thought that being in a small community made it more likely for private providers to care for the uninsured, as it was harder for providers to turn away their uninsured neighbors or acquaintances. A number of directors also felt there were aspects of being located in a small community that made responding to market reforms harder. They men-

tioned that there were fewer resources in the community as compared to an urban area, and that as health departments moved out of personal care service provision there were fewer alternative resources for the uninsured. Less access to alternative funding sources such as private business and foundations was also mentioned as a difficulty faced by rural health departments.

## Discussion

Among market reforms, the implementation of Medicaid managed care seems to have had the greatest impact on rural health departments, but it is hard to separate out these effects from other market factors and from proactive decisions that have been made in anticipation of Medicaid managed care implementation. With the move to Medicaid managed care, the survival of rural health departments does not currently appear to be in jeopardy, but their function and organizational structures may be changing. Important traits for organizational survival appear to involve the state's Medicaid managed care policies as well as the organizations' flexibility, the ability to react to the environment and a willingness to change organizational structure. State policies which allowed patients to more easily access the services of health departments, either through "carve-outs" or "direct-access provisions" appear to have helped some health departments retain more of their Medicaid patients, and consequently, funding. Further, policies which expanded Medicaid eligibility for traditional public health services such as family planning, or which provided funding to support population based services were important because they provided new sources of revenue. Within public health departments, those that were able to act proactively in terms of seeking new funds, changing services, or adapting their overall organizational structure to respond to market-based approaches appeared to have some advantages. There have been some moves to "privatize" some public health departments or consolidate public health services with other human service agencies. While these changes provided agencies with some increased flexibility to react to the market, it was outside the scope of this analysis to assess the overall impact of these changes on the provision of core public health functions or whether the provision of public health services were affected by the consolidation into a larger human service agency.

The trend in rural health departments of moving away from clinical service provision affects both the functioning and viability of the health department as well as access for populations the health departments have traditionally served. While almost all of the health departments had seen decreases in direct service revenue from Medicaid, the financial effects vary according to the organization's ability to generate revenue from other sources and, in the short term, the size of financial reserves from previous years. Although none of the health departments we visited appeared to be in danger of closing, and some of them were doing quite well, what had changed for most of the organizations was their income security. Where EPSDT fees had provided a steady and reliable source of funds in the past, now many health departments do not know what will happen to their budgets from year to year, as grant and contract funding is often for short periods of time and is not guaranteed to be renewed. There was an evident level of stress associated with the uncertainty of where future revenue was going to come from and what would happen when reserves ran out. In addition, many rural health departments that historically based their financial security on Medicaid well-child or Medicare home health fees may now be more vulnerable to changes in political will, county economy and shifts in state priorities and funding.

The shift away from the provision of personal care services has not always been accompanied by an increase in core functions. Although many of the directors thought it was an appropriate role for their organization to provide more population based services, there were two major concerns. First, rural health departments need to have adequate funding for core services, which do not generate revenue. Second, in order to fill the public health "assurance" role—that of assuring that the community has access to care—some directors did not feel that they could completely

withdraw from personal care service provision unless they knew that residents in their community were able to get the same level of care or better in the private sector.

At this point in time, many of the health department directors are not convinced that the care their former clients are receiving in the private sector is adequate. A number of the individuals we interviewed expressed concern that children were not receiving as thorough EPSDT screens in the private sector as they had when the health departments were providing these services. While it was beyond the scope of this project to conduct the chart reviews that would be necessary to see if this concern was justified, it does raise an important issue. For example, children in rural communities in North Carolina have been found to have a higher prevalence of elevated blood lead as compared to their urban counterparts (Norman et al., 1994). If lead screening were not performed as part of their EPSDT visits, this problem could go undetected, and among young children, untreated elevated blood levels can result in impaired mental and physical development (GAO, 1999). In addition, many of the health directors are concerned that private practices have not been tracking children and reminding parents when it is time for immunizations and well-child visits or following up with families that are not bringing their children for these services. The health directors stated that the private practices, unlike the health departments, often lack the infrastructure necessary to provide tracking and follow-up. There is also a perception on the part of many of the individuals we interviewed that there is a loss of health department expertise regarding the tracking of service receipt and the provision of wraparound services, as well as a concern that the availability of wraparound services has been reduced in some areas.

The study does raise the issue of how health departments will serve the assurance role for the uninsured. Most of the health departments we visited provided limited services, if any, to the uninsured; all that was generally available to adult males was limited help in finding a private provider. In the communities we visited, the availability of services for the uninsured without extensive travel, particularly for adults, appeared to be inadequate. For health departments to truly function as a provider of last resort, many would need to expand their clinical services for the uninsured, but this could not occur without an infusion of government funds.

For the most fragile populations, the poor and less educated, the changes wrought by market reforms have been mixed. There was recognition that children enrolled in Medicaid may benefit from having a medical home. Also, children with Medicaid and their parents may feel less stigmatized if they are able to access a private provider rather than receiving services at the public health department. However, the move to the private sector has not decreased the fragmentation of the health care system. The concept of a medical home works well for individuals whose health concerns are completely addressed by personal care services. For many poor rural populations, public health functions represent an important facet of comprehensive health services. While coordination between public health departments and private providers, and financial support for public health functions would be desirable, we visited very few communities where private providers were taking advantage of the new climate to develop public-private partnerships. There appeared to be little or no incentive for public-private partnerships to be forged to provide comprehensive outreach, prevention and services to vulnerable populations, particularly children. Further study is necessary to investigate the effects of Medicaid managed care on quality and comprehensiveness of medical care for children, and to formulate ways to facilitate collaboration between public and private sectors to improve the health of communities.

Thus, whether the overall market-based changes are viewed as positive or negative depends, in large part, on the perspective taken. From a public health perspective, the changes that have occurred as a result of Medicaid managed care may be perceived more negatively, because of the potential adverse impact these changes have on the long-term financial viability of health departments as well as the questions

raised about the quality of care provided to Medicaid recipients by private providers. Medicaid directors may perceive the changes more positively, as the move to managed care has helped control Medicaid expenditures (Holahan et al., 1998) and improved access to private providers (Felt-Lisk et al., 1999). Legislators may have more mixed responses. On the one hand, market based approaches, especially the move to managed care, have been credited with reducing overall health care expenditures (Levit et al., 1997). On the other hand, changes which reduce the ability of health departments to cross-subsidize their "core public health functions" or care for the uninsured may now necessitate a direct appropriation from local, state or national legislators. And from a patient's perspective, whether these changes are perceived as beneficial may depend on whether it is now easier or more difficult to access services, and the quality of care provided.

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## REFERENCES


Felt-Lisk S, Silberman P, Hoag S, Slifkin R. Medicaid Managed Care in Rural Areas: Lessons from 10 States' Experiences. *Health Affairs*. 1999; 18(2):238-245.

General Accounting Office. Lead Poisoning: Federal Health Care Programs are not Effectively Reaching At Risk Children. January 15, 1999. (HEHS-99-18).

Holahan J, Zuckerman S, Evans A, Rangarajan S. Medicaid Managed Care in Thirteen States. *Health Affairs*. 1998 May/June;17(3):43-63.

Hurley RE, Draper DA. Managed Care for Medicaid Beneficiaries: An Overview. Chapter 6. Managed Care and Public Health. Aspen Publishers. 1997.

Institute of Medicine. *The Future of Public Health*. 1988. National Academy Press, Washington, D.C.

Levit K, Cowan C, Braden B, Stiller J, Sensenig A, Lazenby H. National Health expenditures in 1997: More Slow Growth. *Health Affairs*. 1998 Nov/Dec;17(6):99-110.

Lipson DJ, Naierman N. Effects of health systems changes on safety-net providers. *Health Affairs*. 1996 Jun;15(2):33-48.

Martinez RM, Closter E. Public health departments adapt to Medicaid managed care. Issue Brief Number 16, November 1998. Center for studying Health System Change.

Norman EH, Bordley WC, Hertz-Picciotto I, Newton DA. Rural-urban blood lead differences in North Carolina children. *Pediatrics*. 1994; 94(1): 59-64.

Slifkin RT, Hoag SD, Silberman P, Felt-Lisk S, Popkin B. Medicaid managed care programs in rural areas: A fifty-state overview. *Health Affairs*. 1998; 17(6):217-227.

Rural Health Research Center. Rural Managed Care: Patterns & Prospects. University of Minnesota. Grant sponsored by Robert Wood Johnson. 1997.

Wall S. Transformations in Public Health Systems. *Health Affairs*. May/June 1998;17(3):64-80.