ASSESSING MANAGED CARE PREPAREDNESS IN RURAL COMMUNITY-BASED PRACTICES IN NORTH CAROLINA

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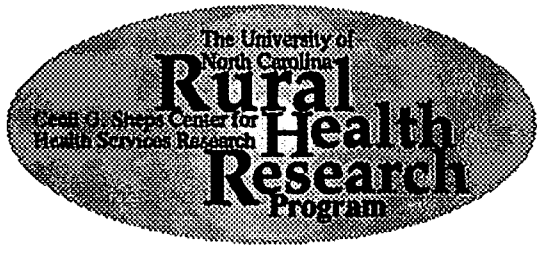

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Assessing Managed Care Preparedness In Rural Community-Based Practices In North Carolina

Introduction

The national trend towards managed health care continues to grow and thrive. Between 1984 and 1994, the number of participants enrolled in managed care plans more than doubled (Hurley, 1996). While managed care is not new to rural areas, it has grown there more slowly than in urban areas of the U.S. In 1994, only 4.3% of all HMOs were headquartered in non-metropolitan areas. About half of non-metropolitan counties are served by HMOs (Christianson, 1996). As of January 1, 1995, the percentage of the population enrolled in HMOs ranged from 9.9% in the East South Central states (Alabama, Mississippi, Tennessee, and Kentucky) to 33.2% in the Pacific states (California, Oregon, and Washington) (Interstudy, 1995). Researchers and program managers suggest that the reasons why managed care has not penetrated into rural areas as rapidly include the increased costs of doing business in rural places, small numbers of lives to be covered which would create unpredictable costs, and low payment levels for managed care enrollees in federal programs, especially Medicare (Weiner, 1991; Serrato & Brown, 1995; Ricketts, Slifkin & Johnson-Webb, 1995). The potential of managed care to save money has become widely accepted (Freudenheim, 1996; Winslow, 1996) but the ability of managed care to thrive in rural areas was central to the controversy over the President's Health Security Act. Managed competition, the core concept in that legislation and based on managed care systems, was

seen as not being able to work in rural places due to population constraints (Kronick, Wennberg, & Wagner, 1993) and because of the lack of resources (Fuchs, 1994).

Despite these potential drawbacks, managed care is growing in rural areas and there is evidence that it can be successful (Baackes, 1994; Scheur, 1995; Conklin, 1994). Because of its perceived inevitability as the primary financial approach for health services in the future, in the 106th Congress there were many proposals to assist rural areas to cope with managed care (RUPRI, 1996). As rural providers prepare themselves to participate in the changing health care environment, they may face special challenges. Rural providers serve a population that is generally older, poorer, and less educated than urban populations (OTA, 1990). If their practices are community-based, they often have a mission to provide care for the underserved. These factors may place them at a disadvantage in a health care environment that is increasingly competitive (Cooper, 1995).

North Carolina and Rural Managed Care

North Carolina is viewed as a predominately rural state. There are several ways to classify areas and populations as rural; the U.S. Office of Management and Budget classifies counties as either metropolitan or nonmetropolitan based on population and central city size and trade patterns. The U.S. Bureau of the Census classifies persons as living in either an urban or rural place. In 1996, North Carolina has 65 nonmetropolitan counties comprising 34.5 percent of the total population. However, there are

significant rural populations living in metropolitan counties, and 49.7 percent of the state's population is classified as rural. The North Carolina Office of Rural Health and Resource Development adjusts these definitions to categorize urban counties as those 18 metropolitan counties with a central city of 50,000 or more people. The remaining 82 of the state's 100 counties are viewed as rural. Rurality is associated with poverty in much of the South and this holds in North Carolina where overall, the state has enjoyed rapid, but uneven economic growth. Sixteen percent of rural N.C. residents live in poverty, compared to 11.1 percent of urban residents. Sixty-four of the counties in the state are classified as health professional shortage areas, and over one-fifth of the population lives in these areas (N.C. Health Planning Commission, 1995).

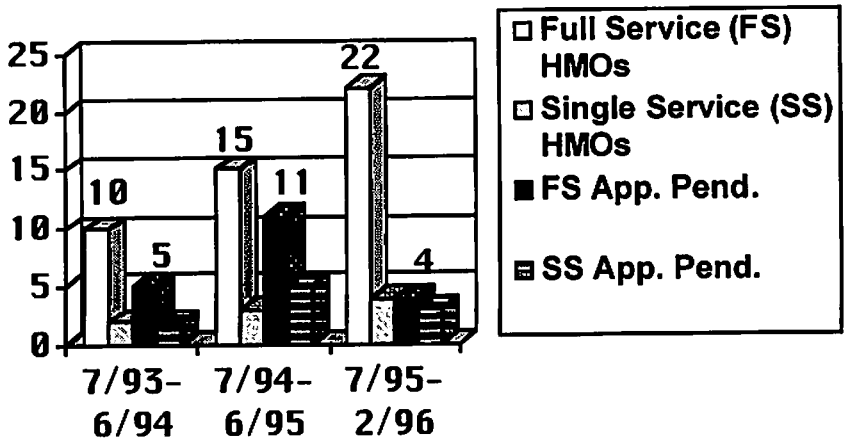
Over the last 28 years, more than ninety state-initiated rural health centers and federally supported community health centers have been developed in underserved areas of North Carolina. They have been largely unaffected by managed care until very recently (NC ORHRD, 1996).

Managed care in the state dates back to the original federal legislation supporting Health Maintenance Organizations (HMOs). One of the original grantees under the federal HMO Act of 1978 was located in Raleigh, NC. That experiment, like many of the original federally-supported HMOs in more rural states, did not succeed, and it was not until the 1980s that the first commercial managed care firm opened for business in North Carolina. The State, led by Governor James B. Hunt during his first two terms as Governor

(1976-1984), encouraged the development of systems in a state which had no prior experience with managed care, and that created a statutory climate that was intended to create a mixed market combining non-profit and for profit managed care organizations and which included some degree of community input into the development of the companies and markets.

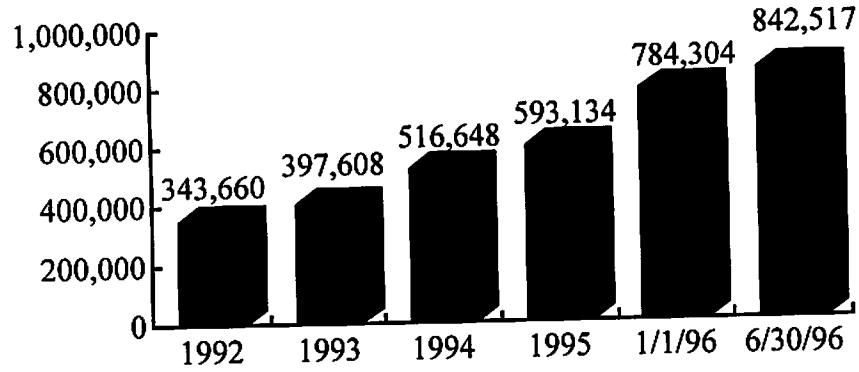
The efforts of the Governor and the Foundation for Alternative Health Programs, established to meet this goal, were largely successful. A Kaiser plan started operation in the state in the early 1980s along with a few, for profit firms. Growth was slow in managed care until the recent emphasis on cost containment created conditions that led to rapid growth of HMOs and managed care companies in this state. Between June 1994 and February 1996, the number of licensed full-service HMOs grew from 10 to 22, with several HMO license applications pending review. In addition to the full service HMOs, there are currently four single service HMOs (primarily covering dental services) licensed in the state, and another three single service HMO applications pending. (Morales-Burke, 1996).

Figure 1. Numbers of Managed Care Plans in NC, 1993-1996



As the number of licensed plans increased, so did the number of people enrolled in managed care plans. Enrollment in HMOs grew steadily in the early part of this decade, with annual increases of between 50,000 and 100,000 people between 1992 and 1995. In the last six months of 1995, however, HMO enrollment jumped by almost 200,000 people. Between June 30, 1995 and Jan. 1, 1996, the number of people enrolled in HMOs grew from 593,134 to 784,304 with more than 90% (733,308) being enrolled in full-service HMOs. By June 30, 1996, the number of people enrolled in managed care plans increased to 842,517 (Ricketts and Silberman, 1996).

Table 2: Enrollment in HMOs has Increased in North Carolina



In general, the health maintenance organizations licensed in North Carolina focus their marketing in one or more of the urban markets of the state: Raleigh-Durham-Chapel Hill, Charlotte, Greensboro, and Winston-Salem. The managed care products available statewide are Independent Provider Organization (IPO) and Preferred Provider Organization (PPO) options, which essentially make use of existing providers and involve negotiated fee schedule between the insurers and providers for employees. The penetration of fully-capitated managed care in rural counties in the state is very low, less than 3% across all rural counties, but managed care products including case management options are becoming more common with overall penetration approaching 10 percent in the nonmetropolitan counties of the state.

The state is considering expanding its initial experiment in Medicaid managed care from its demonstration site in Mecklenberg County, the state's most populous metropolitan county, to other counties. Although that expansion may begin as early as 1997, rural areas will be the last to become

involved. A case management program, Carolina Access, developed jointly by the Division of Medical Assistance (the State's Medicaid agency) and the Office of Rural Health and Resource Development, is targeted to selected rural counties and is now operating in 45 of the state's 100 counties. Those agencies are currently developing a new rural managed care program that will transition Carolina Access into a risk-based program. Managed care is not an overwhelming concern of rural providers but trends are clearly in favor of a substantial rapid increase in managed care penetration. In particular, the rapid creation of networks and integrated delivery systems will likely provide the rural population base for managed care to become more economically feasible. Given the unpredictability of the rapidly changing market, rural NC providers are facing the future with considerable uncertainty.

Purpose of the Study

The purpose of the project described in this paper was to create a tool that would assess the extent to which rural community-based practices in North Carolina are prepared to participate in managed health care. Data collected with this tool would be used at the individual level to increase the awareness of community-based practices' of their own managed care readiness. At the aggregate level, data would be used to guide future technical assistance efforts of agencies that work with these practices.

Methods

An initial draft of the assessment tool was developed by staff from the North Carolina Primary Health Care Association, the North Carolina Office of Rural Health and Resource Development, and the Foundation for Alternative Health Programs. This was done in collaboration with a focus group made up of persons from the community and rural health centers involved in the clinical care of patients or the centers' quality assurance activities.

The document was then reviewed by three consultants who work in the area of managed care and have worked with the N.C. Office of Rural Health in the development of strategic plans.[1] Their comments were incorporated into a final draft.

The instrument was tested in two sites and reviewed at the Cecil G. Sheps Center for Health Center Research before the final form was determined. The Sheps Center Rural Health Research program was responsible for the computerization and the design of the analysis of the data from the centers.

The instrument was used to interview 35 community-based practices across the state of North Carolina. Approximately half of the practices were

[1] Arnold Nemore is an independent managed care consultant who works with capitated practices, insurance companies, and hospitals nationwide. Dr. William Kane, another independent managed care consultant, was formerly the executive vice president for operations of Sharp HealthCare in San Diego. Warren Paley, former President of Community Health Plan in Albany, New York, and his associates also reviewed the assessment tool .

federally-funded community health centers (CHCs), and the other half were rural health centers (RHCs).[2]

During the data collection phase, information was also gathered from managed care companies and practices already involved in managed care. This was achieved by, first, contacting managed care companies that operated in the state to determine what factors those companies used in evaluating practices for inclusion in their networks or to assess them as providers in preparing to bid for their services or set a price for services in a managed care contract. Three interviewers from the NCFAHP conducted structured interviews with administrative staff of four major health plans. Plans were selected based on their current involvement in rural markets, and staff perceptions of their current market influence.

One NCFAHP staff person also made site visits to two practices participating successfully in managed care. These "expert practices" were selected based on recommendations by a managed care consultant and whether the majority of their business was managed care. Visits consisted of observation and unstructured interviews.

Data analysis of the surveys was primarily descriptive. T-tests were also completed to analyze possible differences between CHCs and RHCs, and the data set that was derived from the data is being considered for additional analysis for other studies. However, the needs of the clinics in preparing for managed care focused on the descriptive results. Descriptive statistics

[2] One center was originally initiated as a private foundation effort, then became affiliated

(maximums, means, modes) were calculated for CHCs and RHCs separately and for the total population. One center was originally supported by the state of North Carolina and a private foundation but has subsequently received a CHC grant. Its structure and operation are more influenced by its original state-orientation and was included in the RHC classification.

Individual questions from the survey instrument were used to form 10 scales, each representing a different domain of managed care preparedness. This was based on experience with an earlier evaluation of the performance of a national sample of rural primary care programs, which used scales developed from exploratory and confirmatory factor analysis to assess competitive readiness and orientation (Ricketts, 1990) The identification of the scales and scale components was done through a qualitative process that involved the site visitors, the analysis team at the Sheps Center, feedback from the clinics and the consultants familiar with rural managed care, and feedback from the interviews with managed care plans and expert practices. Two candidate scale structures were assessed prior to full analysis of the data; a final modified set of factors was agreed upon, and the scale components were chosen after the data were tested with the proposed scales. Scale items were weighted after review and input from the site visitors and expert consultants and *ad hoc* testing of variance and validity.

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with the state rural health center program and has since received a CHC grant.

Results

Of the 35 practices interviewed, 17 were CHCs, and 18 were RHCs. Twelve of the seventeen CHCs were located in rural areas. CHCs were considerably larger than RHCs with respect to size of staff and annual budget.

Table 1: Size of practices by staff FTEs and annual budget

Type of Center	Mean Number of FTEs	Mean annual budget
All	34.88	$1, 980,510
RHCs	17.85	$571,577
CHCs	57.16	$3, 590,719

Revenue mixes also varied among types of centers. On average, Medicare and Medicaid revenues represented 32% of the total annual budget for all centers, and ranged from 47% for RHCs to 29% for CHCs. Most centers were unable to break-out revenue from HMOs from the rest of their private insurance revenue. Because most practices were unable to differentiate the number of "users" that were seen in a given timeframe from the number of "encounters" that those users generated, patient mixes for this sample were not determined. CHCs had more involvement with managed care than did RHCs. Of the 86 managed care contracts reported, 51 of these were with CHCs, and 35 were with RHCs.

Managed Care Organizations

The four managed care organizations whose representatives were interviewed represent nearly two-thirds of the market share for HMOs in North Carolina. While staff from all four indicated an interest in contracting with rural providers, no particular patterns were determined in their respective approaches to selecting the providers with whom they contract. There were commonalties, however, in the factors they considered in their

ongoing evaluation or "profiling" of practices. All four expected practices to meet their credentialing standards, and in some way all four monitored quality and utilization indicators. Three of four required that hospital coverage be provided and that providers refer to other providers within their plan. Three of the four also provide feedback and technical assistance to practices with contracts but only if they served more than a set threshold of their members, usually 100.

The common elements that plans used to evaluate practices were consistent with those areas that the National Committee for Quality Assurance (NCQA) monitors in its HEDIS recommendations and formal HEDIS data collection. The NCQA serves as one of the unofficial national accrediting agencies for managed care organizations, and evaluates the quality of programs focusing on management and quality improvement, utilization management, credentialing, members' rights and responsibilities, preventive health services, and medical records (NCQA, 1996).

Expert Practices

Observations and interviews were conducted at two successful primary care practices in Durham, NC, whose managed care contracts and patient load represents over 60% of their business. In identifying those aspects of their practices that they believed were critical to their success, several themes emerged. Both had significantly adapted their practices to the changing environment. Staffing levels were increased to handle referrals and triage. Services that could not be offered cost-effectively were contracted out (in one case, lab and x-ray, and in another in-patient). The focus of the practice shifted from providers to clients, and there was an increased emphasis on patient access and patient satisfaction. In addition to one-time changes, systems were also monitored over time. Data were carefully managed so that

utilization trends, efficiency, and costs could be determined. These data were used to make internal changes and to negotiate with managed care organizations.

The Managed Care Preparedness Scale

Feedback from managed care plans and expert practices assisted project staff in identifying desirable attributes for successful participation in managed care. The analysis phase was integrated with the questionnaire development phase with the intention of creating some form of unified preparedness scale or scales. Since there were no readily available scales or metrics, the process was formative in its structure with the criteria being developed as the data were gathered.

The individual questions were clustered according to general areas suggested in the development process. These included attention to 4 major clusters of factors:

1. Technical capacity: ability to manage utilization, to manage quality assurance activities, sophistication of information systems, medical record systems
2. Organization and structure of the practices: productivity, comprehensiveness, organizational "sophistication"
3. External relations: experience with managed care companies, networking
4. Outcomes: patient satisfaction, access measures

The questions were grouped under each of the specific terms rather than the 4 major clusters because of excessive duplication and overlap. Each item was also scored according to its level of importance as judged by the consultants, program experts and the analysis team at the Sheps Center. After three iterations of assignment to scales and testing of scale results, the final set of

attributes was created. These attributes were structured into ten scales: patient satisfaction, organizational sophistication, networking and outreach, ability to manage utilization, medical record adequacy, risk management, ability to manage quality assurance activities, MIS sophistication, comprehensiveness of services, and involvement with managed care organizations. The scales were structured to accommodate the actual responses in the questionnaires and to assign weighted values to each response. For example, as part of the patient satisfaction attribute, the hours that the clinic was open and the extent of coverage were considered important aspects of potential patient satisfaction. The clinics were assigned a score of up to 10 points for the extent to which they were open for clinic hours, an additional 3 points were added for 24-hour coverage. The time to see a provider also was factored into the patient satisfaction score with 3 points added if a scheduled patients normally waited less than 30 minutes before being seen by a provider. There were 8 question groups and 24 individual response elements in the patient satisfaction score which could range from 0 to 56. The actual range was 8.4 to 32.3; a summary of the score is included in Table 2, below. After attempting to remove all duplication from the scales, there remained some overlap with questions being included in more than one scale Components of each scale are in Appendix A.

For each participating practice, a spider graph representing the scales with the individual scores, means, and total possible scores were constructed. A sample is in Appendix B. Below is a table demonstrating the minimums, maximums, means and total possible score for each scale.

Table 2: Managed Care Preparedness Scale

Scale	Minimum	Maximum	Mean	Possible
Patient Satisfaction	8.4	32.30	25.48	34.00
Organization Sophistication	10.80	51.1	27.94	57.00
Networking	0	3.00	1.17	3.00
Ability to Manage Utilization	11.00	36.50	21.96	47.00
Medical Record Adequacy	3.00	19.20	14.90	20.00
Risk Management	0	8.00	4.00	23.00
Ability to Manage Quality	11.80	39.00	25.7	39.00
MIS Sophistication	9.10	43.30	26.20	55.50
Comprehensiveness of Care	8.00	32.80	19.01	36.00
Involvement with Managed Care Organizations	0	8.70	2.51	20.00

In t-tests, mean scores for CHCs were significantly higher than for RHCs on all but two scales: patient satisfaction, and networking. The actual scale differences showed clear variations between these two groups of clinics in terms of their structure. The convergence of the outcome measures of patient satisfaction may indicate that there are clearly more ways than one to achieve clinic goals in terms of structure and operation. The similarity in networking scores is indicative of the general trend toward linking of practices and the geneeral market activity of managed care systems and plans.

Table 3: Comparison of Rural Health Center and Community Health Center Responses

Scale Item	RHC Mean (n=18)	CHC Mean (n=17)	Probability (t-test for difference of means)
Patient Satisfaction	24.54	25.89	NS
Organization Sophistication	22.78	35.89	.0003
Networking	1.00	1.62	NS
Ability to Manage Utilization	19.22	24.77	.02
Medical Record Adequacy	14.50	16.39	.02
Risk Management	13.22	18.46	.003
Ability to Manage Quality	18.67	29.25	.0002
MIS Sophistication	22.71	32.37	.001
Comprehensiveness of Care	17.02	23.94	.0003
Involvement with Managed Care Organizations	1.43	4.08	.0005

Patient Satisfaction

Items relating to patient satisfaction centered primarily on access to care and continuity of care issues. The patient satisfaction scale included responses to questions covering the hours the clinics were open, after hours coverage, the involvement of the clinic in hospital services, appointments systems and follow up of appointments, follow-up standards for abnormal results, hospitalization and ER visits, the ability of the patient to select a provider or see the same provider, and the timing for scheduled appointments and waiting time for appointments and walk-in care.

Table 4: Presence of Selected Markers of Patient Satisfaction Among RHCs and CHCs

Marker	All	RHCs	CHCs
Has 24/hr coverage system	79%	71%	88%
Patients get to see same provider	91%	88%	94%
Scheduled patients see provider within 30 minutes	88%	89%	85%

Organizational Sophistication

Attributes contributing to the organizational sophistication scale focused particularly on the presence of systems or infrastructure that allowed the practice to manage and respond to information efficiently.

Table 5: Presence of Selected Markers of Organizational Sophistication Among RHCs and CHCs

Marker	All	RHC	CHC
Able to breakout payer sources	81%	72%	93%
Able to allocate costs	66%	44%	88%
Able to allocate revenue	37%	22%	53%
Conducts chart audits	71%	56%	88%

Networking

Networking was indicated by evidence of outreach and marketing in the professional community and in the community the practice serves.

Table 6: Presence of Markers of Networking among RHCs and CHCs

Marker	All	RHC	CHC
Has contracted for participation in a network	25%	22%	29%
Has conducted a community needs assessment	68%	56%	81%

Ability to Manage Utilization

The ability to manage utilization was indicated by systems that allowed centers to track and manage patients' use of health care services.

Table 7: Presence of Selected Markers of Ability to Manage Utilization Among RHCs and CHCs

Marker	All	RHC	CHC
Hospitals where patients go and providers have privileges are same	51%	33%	70%
Appointment system contains reminder cards, missed appointment follow-up, and pre-call.	31%	17%	47%
Able to ensure that all diagnostic test results and consultation reports have been received	34%	28%	41%
System to follow-up abnormal results and periodic exams	60%	61%	59%

Medical Record Adequacy

Medical record adequacy was indicated by the presence of charting practices consistent with selected NCQA standards.

Table 8: Presence of Selected Markers of Medical Record Adequacy Among RHCs and CHCs

Marker	All	RHC	CHC
At least 80% of charts have follow-up care noted	97%	94%	100%
At least 80% of charts have complete medical history noted	35%	28%	46%
At least 80% of charts have medication allergies prominently noted.	61%	56%	69%
At least 80% of charts have provider initials on consults/lab/X-ray reports	58%	72%	38%

Risk Management

The risk management scale was comprised of items that pertained to the ability to manage liability exposure.

Table 9: Presence of Selected Markers of Risk Management Among RHCs and CHCs

Marker	All	RHC	CHC
Reviews documentation via chart audits	57%	50%	64%
Conducts patient satisfaction surveys	63%	44%	82%
Practice has directors and officers coverage	54%	33%	76%
Practice has Patient Bill of Rights and Responsibilities	32%	17%	50%

Capacity to Manage Quality Assurance Activities

Components in the ability to manage quality assurance activities scale focused on the presence of systems that promoted continuity of care and allowed practices to assess their clinical systems and outcomes.

Table 10: Presence of Selected Markers of Capacity for Quality Assurance Activities Among RHCs and CHCs

Marker	All	RHC	CHC
Chart audits evaluate clinical systems	51%	44%	59%
There are follow-up systems for abnormal results, periodic exams, post-hospitalization, and post-ER	20%	11%	29%
There is a system for providers to review external records before they are filed in the chart	83%	72%	94%

MIS Sophistication

MIS Sophistication scale items assessed the capability of current computer systems to handle effectively the changing data processing needs of practices participating in managed care.

Table 11: Presence of Selected Markers of MIS Sophistication Among RHCs and CHCs

Marker	All	RHC	CHC
Able to distinguish users vs. encounters	41%	22%	64%
MIS can track managed care requirements	18%	6%	31%
Can compare capitated payments with fee-for-service payments	29%	6%	53%

Comprehensiveness of services

Comprehensiveness of services assessed the scope of services that practices provided. The questions did not focus on specific clinical services but rather structural characteristics that could facilitate offering a broad range of services including flexible hours and relationships with hospitals. The inclusion of a question concerning HEDIS services was included since it was the one current measure of comprehensiveness being used in managed care quality assessment.

Table 12: Presence of Selected Markers of Comprehensiveness of Services Among RHCs and CHCs

Marker	All	RHC	CHC
Open weekend or evening hours	54%	33%	76%
Providers have hospital practice	56%	41%	70%
Organization offers services tracked by HEDIS	16%	6%	29%

Involvement with Managed Care Organizations

Involvement with managed care organizations was indicated by current contracts with networks or plans, and the presence of an organizational structure or plan that related specifically to managed care.

Table 13: Presence of Selected Markers of Involvement with Managed Care Organizations Among RHCs and CHCs

Marker	All	RHC	CHC
There is an employee responsible for managed care development	17%	17%	18%
Have current managed care contracts	84%	72%	100%
Are receiving capitated payments	41%	17%	71%

Discussion

The data from this study parallel national data suggesting that managed care is moving into rural areas; most participants in this study were involved with at least one managed care organization, and more than one-third of them were already receiving capitated payments. However, the predominant type of managed care was not strict capitation nor were the systems and plans tightly structured.

At the same time, the results suggest that community-based practices are relatively lacking in the systems and processes that would assist them to actually "manage care" successfully. Community health centers are somewhat more prepared than rural health centers. This difference is most due to their larger size, the greater likelihood that there will be a fulltime administrator or an administrative structure on site and to the system of standards and requirements that accompany their federal funding. A comparison with private community primary care practices would have been useful for this project but there is no regularly reported data for private practices and the literature, to date, does not offer a summary or review of managed care preparedness for private primary care clinics.

Medicare and Medicaid reimbursement make up a considerable part of the revenue for CHCs and especially for RHCs. If these public programs move into managed care, community-based practices will be significantly

affected. All but two of the 35 practices in this study currently receive cost-based reimbursement from Medicaid and Medicare, a mechanism whose future viability is debated. All of the practices in this study also serve medically underserved areas, and because they are more likely to serve the uninsured and underinsured, their financial risk is further increased. In the future, practices will be less able to cost-shift to cover the expense of uncompensated care.

These data suggest that community-based practices could be approaching a time of increased vulnerability. Pressure to contain costs will increase as commercial populations and public sector programs move into managed care, and practices will need to increase their efficiency in order to maintain their services. At the same time that resources are shrinking, practices will need to invest in developing clinical and administrative systems that will allow them to manage care effectively.

Conclusions

The results of this study have implications for agencies that work with rural community-based practices. At the individual level, the managed care preparedness review can be used as a vehicle to give practices information about how managed care works and how it will affect them. Feedback can assist practices to identify and prioritize those areas in which they need further development. Technical assistance should be individualized for each practice, considering their interest and ability to take action, and the demands of the market in which they find themselves.

At the aggregate level, this tool can be used to guide state agencies as they provide technical assistance to community-based providers and develop comprehensive managed care strategies. Findings may also have policy

implications and identify important areas where agencies may advocate for the practices they serve.

This study confirms the important role that resource development agencies have in supporting essential community providers. As practices are increasingly expected to do more with fewer resources, they will need assistance in making the transition to managed care successfully.

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Appendix A: Scale Items

ITEMS/Clusters	Possible Points
Patient Satisfaction	
Open evening or weekend hours (Q 1.9)	4.5
Has 24 hour coverage system (Q 1.10)	3
Hospital services are provided (Q 1.11)	3
There are written standards re: patients' access to care (Q 1.12)	1
Appointment system contains (Q 3.7)	
reminder cards	.66
missed appointment follow-up	.66
pre-call	.66
There are follow-up systems for (Q 3.8)	
abnormal results	.75
periodic exams	.75
post-hospitalization	.75
post-ER	.75
Patients routinely select and get to see the same provider (Q 3.13)	2
On average, a scheduled patient spends a total of 60 minutes or less at the practice for each appointment (Q 4.8)	3
On average, a walk-in patient spends a total of 150 minutes or less at the practice for each appointment (Q 4.8)	2
On average, a scheduled patient sees a provider within 30 minutes (Q 4.9)	3
On average, a walk-in patient sees a provider within 120 minutes (Q 4.9)	3
On average, an annual exam can be scheduled within 60 days. (Q 4.10)	3
On average, an exam for a routine or chronic problem can be scheduled within two weeks (Q 4.10)	3

Organizational Sophistication	
Ability to breakout payer sources (Q 1.1)	3
Accrual or modified accrual accounting system (Q 1.4)	2
Cost allocation (Q 1.5)	3
Revenue allocation (Q1.5)	3

Reporting of cost/revenue comparisons throughout organization (Q 1.6)	3
Employee is designated to be responsible for managed care development (Q 1.13)	1
Written long range plan includes managed care strategy (Q 1.14)	2
Have written protocols for medical records (Q 2.1)	2
Conducts regular chart audits (Q 2.2)	3
Chart audits evaluate clinical systems (Q 2.3)	1
Chart audits evaluate clinical outcomes (Q 2.3)	1
Chart audits provide peer review (Q 2.3)	2
Chart audits review appropriateness of charges (Q 2.3)	2
Chart audits review appropriateness of coding (Q 2.3)	3
Chart audits review documentation completeness (Q 2.3)	1
Organization conducts sophisticated physician credentialing activities (Q 3.1)	3
Organization conducts sophisticated midlevel credentialing activities (Q 3.1)	2
There is a procedure for obtaining outside records and assuring that requests are fulfilled (Q 3.9)	2
There is a system for providers to review external records before they are filed in chart (Q 3.10)	3
There is a system to ensure that test results are posted in records in a timely manner. (Q 3.12)	3
Practice can estimate the cost effectiveness of its referral specialists (Q 4.4)	1
Organization tracks utilization of all ancillary services it offers (Ancillary Services)	2
Organization tracks cost for all ancillary services it offers (Ancillary Services)	2
Organization tracks revenue for all ancillary services it offers (Ancillary Services)	2
Patient satisfaction survey results are reviewed by staff, administration, and Board (Q 5.6)	3
Networking/Outreach/ Marketing	
Have contracted for participation in a local, regional, or statewide network (Q 1.15)	2
Practice has conducted a community needs assessment (Q 5.12)	1
Ability to Manage Utilization	
Has 24 hour coverage system (Q1.10)	3
System is present to advise PCP of emergency services rendered after-hours (Q 1.10)	3

Hospitals that patients use and hospitals where providers have privileges are same (Q 1.11)	3
Appointment system is automated (Q 3.6)	1
Appointment system contains (Q 3.7)	
reminder cards	1
missed appointment follow-up	1
pre-call	1
There are follow-up systems for (Q 3.8)	
abnormal results	1.5
periodic exams	1.5
There are follow-up systems for (Q 3.8)	
post-hospitalization	1
Post-ER	1
There is a system to ensure that all diagnostic test results reports have been received (Q 3.11)	1.5
There is a system to ensure that all consultation reports have been received (Q 3.11)	1.5
Practice can provide information on: (Q 4.1)	
the number of patients keeping referral appointments	1
the number of written reports received after a referral visit	1
Practice tracks referrals by individual provider (Q 4.3)	2
Practice can and does track patient utilization of hospital admissions (Q 4.7)	2
Practice can and does track patient utilization of length of stays (Q 4.7)	2
Practice can and does track patient utilization of ER visits (Q 4.7)	2
Practice can and does track patient utilization of procedures done on-site (Q 4.7)	3
Practice can and does track patient utilization of diagnostic testing, procedures, and consults off-site (Q 4.7)	2
Practice can and does track patient utilization by codes (Q 4.7)	2
Practice can and does track patient utilization by providers (Q 4.7)	2
Practice can and does track patient utilization of phone time (Q 4.7)	1
Medical Record Adequacy	
Information re: after hours care is entered in medical record (Q 1.10)	3
Have written protocols for medical records (Q 2.1)	2
Chart review for the following criteria shows an 80% rate: (MR standards)	

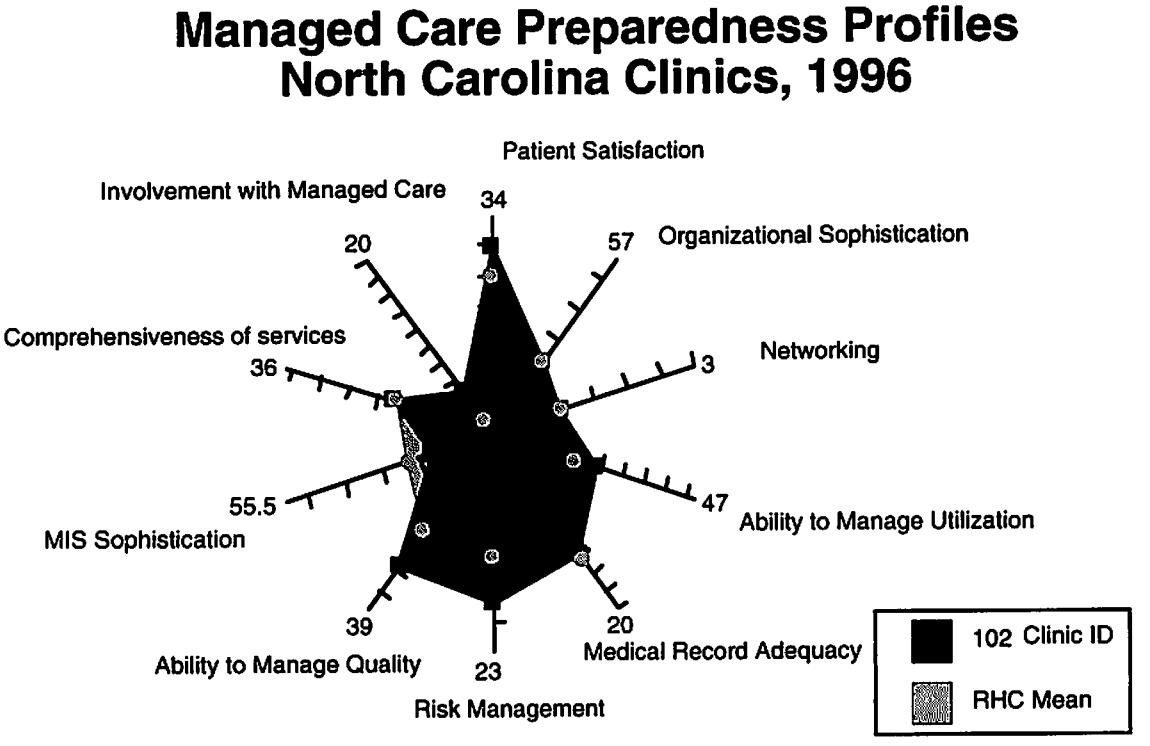
Each page contains enrollee name/ ID	1.5
Personal demographic data is present	.25
All entries have author ID	1.5
All entries are dated	1.5
Record is legible	1.5
Notes are transcribed	.25
Problem list is present and used	.5
Medication allergies are prominently noted	1.5
Medical history is noted	1.5
Physical form is present and used	.25
Follow-up care, calls or visits are noted with specific timing	.25
Consultations, labs, and x-ray reports are initialed by provider	.25
Immunization record is complete	.25
Medication record is present and complete	.25
Health maintenance flowsheets are used according to clinic protocol	.25
Patient instructions are noted	.25
Initial workup procedure is followed	.25
SOAP format is used	.25
Risk Management	
Chart audits review documentation (Q 2.3)	3
Practice has corporate malpractice insurance (1-3M) (Q 5.1)	3
Practice has provider malpractice (1-3M) (Q 5.1)	3
Practice has Fire/Natural Disaster Coverage (Q 5.1)	3
Practice has Board and Employee Bonding (Q 5.1)	3
Practice has Directors and Officers Coverage (Q 5.1)	3
Practice conducts patient satisfaction surveys on a regular basis (Q 5.2)	3
Practice has Patient Bill of Rights and Responsibilities either posted or given to patient in registration process (Q 5.9 and 5.10)	2
Ability to manage quality assurance activities	
Conducts regular chart audits (Q 2.2)	3
Chart audits evaluate clinical systems (Q 2.3)	3
Chart audits review clinical outcomes (Q 2.3)	2
Chart audits provide peer review (Q 2.3)	1
Chart audits review appropriateness of charges (Q 2.3)	1

Chart audits review appropriateness of coding (Q 2.3)	1
Chart audits review documentation (Q 2.3)	3
Organization has changed as a result of chart audits (Q 2.4)	2
There are written clinical protocols (Q 3.2)	3
There are follow-up systems for (Q 3.8):	
abnormal results	.75
periodic exams	.75
post-hospitalization	.75
post-ER	.75
Appointment system contains (Q 3.7)	
reminder cards	.66
missed appointment follow-up	.66
pre-call	.66
There is a system for providers to review external records before they are filed in chart (Q 3.10)	3
Open evening or weekend hours or perceives room for improvement (Q 1.9 and 5.8C)	3
Has 24 hour coverage system or perceives room for improvement (Q 1.10 and 5.8D)	3
Patients routinely select and get to see the same provider or perceives room for improvement (Q 3.13 and 5.8B)	3
On average, a scheduled patient sees a provider within 30 minutes or perceives room for improvement (Q 4.9 and 5.8E)	3
MIS Sophistication	
Ability to distinguish users vs. Encounters (Q1.1)	10
Ability to breakout payer sources (Q 1.1)	10
Accrual or modified accrual accounting system (Q 1.4)	2
Cost allocation (Q 1.5)	2.5
Revenue allocation (Q 1.5)	2.5
MIS able to accommodate managed care requirements (Q 1.7)	3.5
Able to track total care for managed care patients (Q 1.17)	1
Able to track total cost of care for managed care patients (Q 1.18)	1
Can compare capitated payments with what practice would receive under FFS (Q 1.19)	2

Appointment system is automated (Q 3.6)	1
Practice can and does track patient utilization of hospital admissions (Q 4.7)	2
Practice can and does track patient utilization of length of stays (Q 4.7)	2
Practice can and does track patient utilization of ER visits (Q 4.7)	2
Practice can and does track patient utilization of procedures done on-site (Q 4.7)	3
Practice can and does track patient utilization of diagnostic testing, procedures, and consults off-site (Q 4.7)	2
Practice can and does track patient utilization by codes (Q 4.7)	2
Practice can and does track patient utilization by providers (Q 4.7)	2
Practice can and does track patient utilization of phone time (Q 4.7)	1
Organization tracks utilization of all ancillary services it offers (Ancillary Services)	1
Organization tracks cost for all ancillary services it offers (Ancillary Services)	2
Organization tracks revenue for all ancillary services it offers (Ancillary Services)	1
Comprehensiveness of services	
Has 24 hour coverage system (Q1.10)	3
Open evening or weekend hours (Q 1.9)	4.5
Hospital services are provided (Q 1.11)	3
Organization offers services tracked by HEDIS (Clinical Outcomes)	17
Organization offers ancillary services	10
Involvement with Managed Care Organizations	
There is an employee responsible for managed care development (Q 1.13)	2
That person has prior managed care experience (Q 1.13)	2
Strategic plan contains a managed care strategy (Q 1.14)	2
Has contracted for participation in a network with other providers. (Q 1.15)	1
Able to track total care for managed care patients (Q 1.17)	1
Able to track total costs for managed care patients (Q 1.18)	1
Have a mechanism to compare capitated payments with what would have been received under fee-for-service (Q 1.19)	2
Have current managed care contracts (MC Relationships)	4
Receive capitated payments (MC Relationships)	5

Appendix B

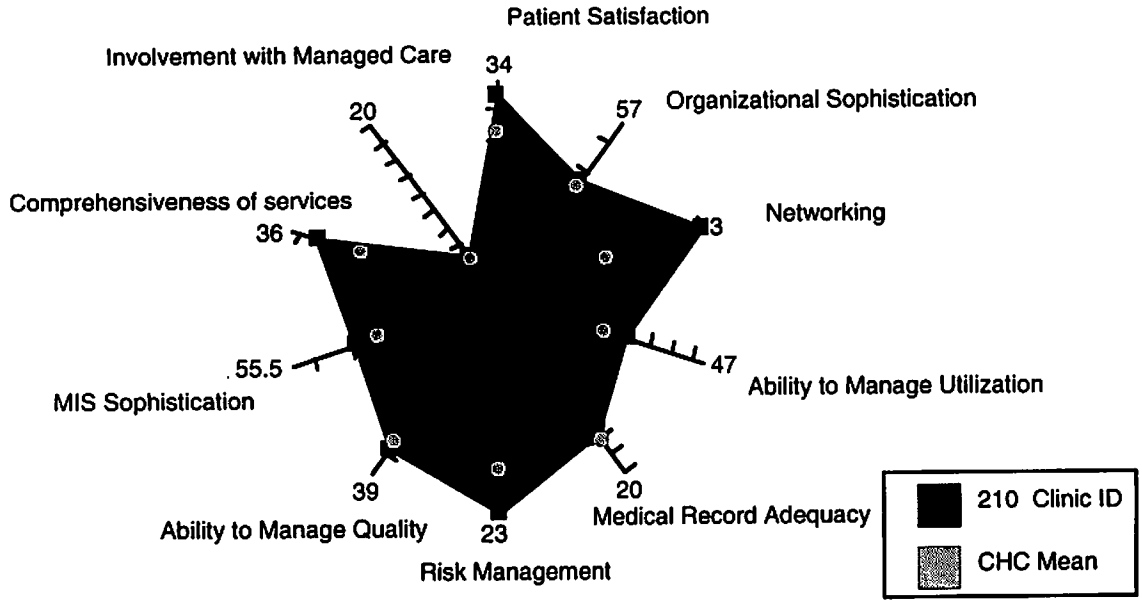
Examples of Spider or Radar Graph to Illustrate Individual Clinic Performance



Rural Health Clinic Number 102

The overlap of the darker scales indicates that the measures exceed the mean for all RHCs. The only exception is for MIS sophistication where this clinic falls below the group mean score.

Managed Care Preparedness Profiles
North Carolina Clinics, 1996



Community Health Center Number 210

This clinic consistently exceed the CHC mean. The scores are close to the mean for Medical Record Adequacy, Involvement with Managed Care, Organizational Sophistication and Capacity to Assess Quality.